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ABSTRACTS

The Marcé International Society International Biennial General Scientific Meeting

"Acting Together Around Childbirth"

October 3–5, 2012, in Paris, France
Hosted by the International Marcé Society, in collaboration with the Francophone Marcé Society and Francophone World Association for Infant Mental Health
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The International Marcé Society for Perinatal Mental Health is dedicated to supporting research and assistance surrounding prenatal & postpartum mental health for mothers, fathers, and their babies.
Our next biennial congress will be held September 10–13, 2014 in Swansea, Wales.
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All abstracts were evaluated by at least three members of the review committee and were assigned to be given as a full presentation, a short presentation, a poster session with oral discussion or in the context of a poster exhibition.

Thanks to the reviewers (members of the program committee and local committee and **Bénédicte Coulm, Jane Honikman, Lisa Segre and Ilona Yim)** who selected the best scientific communications for the congress.

Below are the abstracts ordered by type of presentation and alphabetic order of the first author. Thanks to the authors of the 374 contributions and to the 750 participants from 40 different countries that made the Biennial Marcé Society congress a great success.

1-Plenary Presentations

From Perinatology to Early Medico-Social Action in France

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French early medico-social action centers were created in the mid seventies and have a very special place in the offer of medical care for babies and young children.
They are often perceived as medical care centers dedicated to children with severe disabilities and less than 6 years old. Yet their access is direct and free, without the need of a social or administrative recognition of disability. Babies considered as having a risk of developmental disorders can thus benefit from an early intervention without having to wait for a diagnosis.
These centers provide a medical follow up for vulnerable children, such as premature babies, and offer an original approach to support parenthood. Working on the early relationships is considered as important as contributing to the establishment of a diagnosis and providing medical care.
The team is very large including pediatrician, psychiatrist, physical and occupational therapist, social worker, psychologist, early childhood educator…
Their interventions are comprehensive, both preventive and therapeutic.

Addressing the Ethical Concerns of Institutional Review Boards and Perinatal Investigators Conducting Research with Pregnant Participants

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Aims: We aimed to: Identify the ethical issues faced by perinatal mental health investigators and IRB administrators in the practice of

clinical research; compare and contrast the viewpoints of perinatal mental health investigators and IRB administrators regarding the ethical concerns identified in narratives; and catalogue the range of ethical issues in perinatal mental health research.

Methods: Study design and measures for this pilot qualitative study were presented at the Marce in 2010. Fourteen Principal Investigators from 12 academic institutions and 6 corresponding Institutional Review Board representatives participated in a semi-structured interview inquiring about the ethical challenges to conducting mental health research with perinatal women. Interview transcripts were imported into Nvivo8, a qualitative data analysis software program. Study investigators conducted iterative content and thematic analyses to identify common and emergent themes and patterns in the responses.

Themes and subthemes:

1. Study Design/Methodology
• Use of placebo or appropriate comparison groups
• What is "standard of care" or "treatment as usual"
2. Safety Concerns
• Risk to mother of untreated or undertreated disease
• Risk to fetus of treatment vs maternal deterioration
• "Minimal risk" to fetus of treatments is hard to determine
• Psychosocial treatment in symptomatic Axis I patients
• Differentiating congenital and developmental teratogenic risks
3. Participant selection and recruitment
• Exclusion based on severity of depression
• Blurred boundaries between clinical care and research where both are conducted
4. Autonomy
• Clear and understandable consent forms
• Maternal competency for informed consent
• Maternal comprehension of fetal risks
• When or is paternal consent important
• Parties of consent when pregnancy is combined with status as a "minor"
• Confidentiality and substance-using women

Conclusion: All interviewed believed it is time to address the ethical issues preventing appropriate perinatal treatment research. Information generated regarding informed consent provided the basis for an ongoing project at UNC testing an audio-visual presentation to augment the standard informed consent process.

Coordination of Care Pathway for Under-Privileged Pregnant Women and Newborns: The SOLIPAM Network

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The SOLIPAM network is based on the Pr Dominique Mahieu-Caputo's founding equation: "Pregnancy + deprivation = medical emergency"

Several studies helped to highlight that deprivation leads to perinatal complications: preterm and low-weight births, risk of infection… When vital needs become too pressing, medical monitoring is not a priority and leads to late or inexistent medical follow-ups or to difficulties to comply with follow-ups. The SOLIPAM network started in 2006 from the willingness to address at the same time medical and social problems. For each pregnant woman included in the network, the coordination of personalized care is ensured by a midwife coordinator and a social coordinator. The medical coordination aims to facilitate early integration into the care system, ensuring continuity of medical care (drop-outs avoidance) in prenatal as well as postnatal care for mothers and children. To ensure medical care, this coordination is linked with the social coordination that focuses on meeting the specific needs of each woman (entitlement to social rights, accommodation and food).

The deprivation often creates "psychological suffering". Sometimes the psychiatric disorder itself can be the source of deprivation. In order to provide the best support for these families it is essential to create a bond between the woman and the professionals. A coherent and connected work of all medical and psycho-social actors enables women to find a psychological security.

The stabilization of an accommodation is an absolute prerequisite for ensuring care access and continuity and for the establishment of this network of professionals. The founding members of SOLIPAM and its preferred partners work together to best preserve the stability of accommodations in pre natal and post natal.

The network operates in a "project" mode which brings together all medical-psycho-social players of perinatal expertise in deprivation on Paris/Ile-de-France territory. This multidisciplinary teamwork enables to find regional proposals for improving the care of under-privileged pregnant women and children.

Pregnancy and Wellbeing Study (PAWs). Taking Action with Midwives and Perinatal Primary Care

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Background: There is growing evidence that depression can be prevented by treating subthreshold cases using psychological approaches but little is known about the effectiveness of universal prevention approaches offered to people at all levels of depression severity including none. The PoNDER cluster RCT (Morrell CJ, et al. Psychological interventions for postnatal depression: cluster randomised trial and economic evaluation. The PoNDER trial. Health Technol Assess 2009 Jun;13(30):iii-xiii, 1.) furnished evidence that postnatal women under the care of public health 'health visitors' trained in psychological assessment and support approaches for example based on CBT principles were at reduced risk of later postnatal depression regardless of baseline risk of depression 6–8 weeks after childbirth (Brugha T S, et al. Universal prevention of depression in women postnatally: cluster randomized trial evidence in primary care. Psychol Med 2011 Apr;41(4):739–48.).

Aim: Universal prevention of antenatal depression.

Method; Full scale pilot dress rehearsal to test feasibility within antenatal primary care community midwife services. Cluster randomisation of community midwife teams to either care as usual or to, in addition, training to undertake face to face screening for antental depression (Edinburgh Depression Scale (EDS)) and if at increased risk (EDS>11) offer up to three cognitive Behaviour Approach (CBA)

psychological support sessions. Unselected mothers prospectively recruited at 10 weeks into pregnancy (exclusions: insufficient English; being treated by mental health services). Primary outcome self completed EDS score 12 or more at 34 weeks follow up. Pilot study size under powered to test prevention effect. Trial registration: http://www.controlled-trials.com/ISRCTN72346869.
Results: All trial procedures functioned fully with assessed effects on health outcome comparable to those observed in our earlier postnatal RCT; detailed results will be communicated in late 2012.
Interpretation: Given preliminary findings consistent with those reported antenatally we propose to undertake a multi-centre cluster RCT to fully test the principles of PAWs, with the addition of postnatal outcome data, infant and child development outcomes, and health economics findings. Universal approaches may be applicable to a range of other settings such as employment, school, based on selective additional training of first point of contact staff with mentoring roles (teachers, employment supervisors, etc.).

Building and Sustaining a Specialist Perinatal and Mother Infant Psychiatry Service in India

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Till 2005 there was no specialized service for mothers with severe mental illness in South Asia. However, postpartum and pregnancy related psychiatric problems were common including organic psychosis. The perinatal psychiatry service in Bangalore started as a response to local needs and was first started as an outpatient clinic in September 2005. Till date the service has handled 475 women and their families. Of the 475 women, Pre-pregnancy and pre conception counselling was offered to 124, 192 women were referred for unplanned pregnancies and consequent accidental exposure to psychotropics and 159 women were seen with their infants for postpartum psychiatric disorders.
As the service is situated in a psychiatric hospital, women with severe mental illness were the most common users. Diagnostic breakup of the cases was as follows- Bipolar affective disorders—175, depressive disorders—118, Schizophrenia—103, acute psychosis—30, OCD and anxiety disorders—23.
One of the important aspects of this service has been the development of a model for pre conception counseling and encouraging mothers to plan their pregnancies. Several initiatives including training of psychiatrists and public education in the hospital about the benefits of pre conception counseling and planned pregnancies has enhanced this important component of care among women with mental illness.
Pre-pregnancy counseling led to a significant reduction in the number of women on polytherapy and a significant increase in the use of folic acid supplementation. Majority of the women decided to continue pregnancies.
In addition to the outpatient service, a 5 bedded inpatient mother baby unit was started in July 2009. Till January of 2012, the unit has admitted 120 mother and infant dyads. The uniqueness of the unit is that in keeping with Indian cultural traditions, each mother and infant dyad also has a family member admitted to support the mother.
The challenge to the unit has been to ensure a healthy infant and maintain breastfeeding. The paper will focus on research done on pathways of care, mother infant relationship and pre conception counselling in mothers with severe mental illness.

Effect of a Midwife-Led Counselling on Mental Health Outcomes for Women Experiencing a Traumatic Childbirth: A RCT

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Aims: The perinatal period is arguably one of the most important life stages in which the accurate detection and treatment of psychological distress is required. Perinatal depression, anxiety and trauma affect approximately one-third of women in Australia. Our past research has shown that one-third of women experience traumatic events associated with childbearing. Furthermore, few women attend referrals to mental health practitioners. We conducted a randomized control trial to determine the effect of midwifery-led trauma focused counselling with postnatal women to prevent and treat emotional distress.
Method: 1038 women were recruited from two locations in Australia, during the last trimester in pregnancy. Women reporting a distressing birth experience were randomised to receive trauma focused counselling (intervention) or parenting advice (active control). The intervention group and active control group were contacted by midwives during the first and sixth week postpartum. Midwives received specific training and supervision.
Results: Women experiencing perinatal distress associated with traumatic birth and receiving trauma counselling by midwives reported improved mental health outcomes. They reported significantly fewer symptoms of depression, better social support and adjustment to motherhood.
Conclusions: Perinatal mental health initiatives have focused on the psychosocial assessment of women with limited attention to facilitating access to mental health support. Training midwives with advanced skills in counselling to address perinatal distress holds promise for integrating mental health care into maternity services thereby providing professional support to treat or prevent distress for the majority of women in need.

Early Trilogue Play in Families with Parental Psychopathology

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With increasing data on the communication between infant and co-parenting couple in normative families as they transition to parenthood and become a triad, the need for greater understanding of the impact of parental psychopathology at family level has become clear. In parallell with community families, we studied referred triads for whom the mother had been hospitalized conjointly with her baby due to a psychotic episode during the first semester. They were observed as part of a clinical consultation including a semi-structured play paradigm known as the Lausanne trilogue play (LTP). A few triads with parental bipolar and addiction disorders were seen longitudinally between pregnancy and early childhood for preventive purpose. They followed the research protocol designed to study the development of family triangular communication in non-referred families. A larger group of

referred families without parental psychiatric illness was also studied. Interactions were scored using standardized measures and microanalytic methods for infant gaze and affect. Strengths and problems in cooperation and in triangular sharing of affects—the goal of play—between family members were examined. Like the other referred families without parental psychiatric illness, they failed to reach the goal of play. We noted in addition specific characteristics of families with parental psychiatric illness: pseudo-mutuality, paradoxical interactions. Role reversal between the infant and the couple and the infant's hypervigilance were manifested in particular by an increase of the infant's triangular bids towards the parents. The disturbances noted in studies of mentally disturbed mothers and their babies were aggravated by a marked perturbation of the coparental alliance as well as by relational problems of the reputedly sane parent with his child. The infant was set on a alternate developmental trajectory. Video-feedback sessions with the therapists and the family were the main therapeutic constituents. In consultations, the goal was to orient the therapists' intervention concerning the co-parenting and the infant's socio-affective development, to emphasize the family's resources as well as to exchange with the parents about their concerns. In the longitudinal protocol, video-feedback as well as optional additional sessions were also offered to support the co-parenting and infant socio-affective development.

Effects of Prenatal Anxiety, Depression and Stress on Fetal and Child Development. Mechanisms and Questions

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There is now very good evidence that raised maternal anxiety, depression or stress during pregnancy is associated with an increased risk for emotional, behavioural and cognitive problems for the child. In animals this association has been shown to be causal. In humans this is more difficult to prove. But we have shown, using the large ALSPAC population cohort, that the prenatal risk is independent of postnatal maternal mood, paternal mood and parenting, suggesting that there is indeed a maternal prenatal causal component. We are also starting to understand the mechanisms underlying such fetal programming, with an especial focus on changes in the placenta. The placenta filters what passes from mother to fetus, and this filtering capacity is altered by the maternal mood. We have shown that if the mother is anxious there is a reduction in the placental enzyme which metabolises cortisol, thus exposing her fetus to higher levels. If she is depressed there is a reduction in the expression of the enzyme that metabolises serotonin (MAO A). .
Many questions remain. Children are affected in different ways. Is this because of different genetic susceptibilities? What are the effects on the brain of the child? What types of stress have the most effect? Does work stress affect child outcome? Can the metabolomic pattern in the cord blood help us see which children will be affected? Results from some of our studies addressing these questions will be presented.

MOMCare: Culturally Relevant Treatment Services for Perinatal Depression

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Aims: Depression during pregnancy has been repeatedly demonstrated to be one of the strongest predictors of postpartum depression (O'Hara & Swain, 1996) and was observed to increase the risk of preterm birth and low birth weight in a recent meta-analysis (Grote et al., 2010). The aim of this RCT was to investigate the effectiveness of using a collaborative care intervention, entitled "MOMCare," to treat antenatal depression and prevent postpartum depression in pregnant, women on Medicaid who received Maternal Support Services in 10 public health centers in Seattle-King County, WA. MOMCare involved a choice of brief Interpersonal Psychotherapy (8 sessions plus maintenance) and/or pharmacotherapy. It was specifically enhanced to reduce racial/ethnic and economic disparities in engagement in mental health treatment and to make treatment culturally relevant to women disadvantaged by ethnicity/race and/or poverty.
Methods: To date, 131 pregnant women on Medicaid have been randomly assigned to CarePlus (enhanced usual care), consisting of a referral to the OB provider and/or to a community mental health center(n=65) or to MOMCare(n=66). Primary inclusion criteria were >18 years, major depression or dysthymia, 12–32 weeks gestation, English-speaking, and access to a phone. Exclusion criteria included acute suicidal behavior, psychosis, bipolar disorder, substance abuse/dependence within the past 3 months, and severe intimate partner violence.
Results: Participants self-identified as 39 % white, 16 % Latina, 11 % African American, 12 % Asian, 2 % Native American, and 20 % of mixed race. 29 % were married, 68 % were unemployed, and 45 % had a high school degree or less. Because the trial is ongoing, we are not permitted to examine the pre-post change in depressive symptoms for the CarePlus group until data collection is completed. Paired t-test analyses of clinician-rated depression severity showed that women in the MOMCare group displayed a significant reduction in depressive symptoms during the acute phase of treatment.
Conclusions: Preliminary findings suggest that MOMCare, enhanced to be culturally relevant, has the potential to ameliorate antenatal depression and reduce racial/ethnic and economic disparities in access to and engagement in mental health treatment. These results are inconclusive, however, until intent-to-treat analyses are conducted with both the MOMCare and CarePlus groups.

Prevention in Vulnerable Families: First Results of the French CAPDEP Study

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The CAPDEP study (Parental competencies and promotion of resiliency and attachment) included 440 vulnerable women in the Paris area between 2006 and 2011.
The goal of the study: the goal of the study was to assess the effects of a home based intervention on several variables: post natal depression as assessed at 3 and 6 months post partum, the use of the health and care network, the adaptation of parental care to the child's developmental status, and the level of the child's psychopathology at age 2.5 years.
Method: The study is a longitudinal and a controlled one, using the PROBE methodology (Prospective Randomized Open Blinded Endpoint study). The study abides to the CONSORTS criteria for prevention studies. Assessment was made independently, by a team different from the intervention team, during 6 home based sessions. Intervention was individually tailored to each family, multimodal, and manualized.
Results: The study was successfully completed July 2011, without any major negative events occurring during the 5 years of the study, be it for children, mothers or intervention or assessment team. A vulnerable, to very vulnerable, multiethnic population was recruited and accepted to take part into the study. However, the drop-out rate was quite important, even though the rate was lower in the intervention group. The level of prenatal and post natal depression was very high. Intervention did not reduce the level of pre natal and post natal depression. However, it must be noted that no suicidal attempt was observed in both groups. Mothers in the intervention group significantly looked more for help in well baby clinics or in mental health centres than in the control group. These results are discussed taking in account the possible impact of the assessment in the control group in reducing the differences between the two groups.

Maternal Postnatal Depression and Infant's Attachment Status: The Impact of Mother's Attachment and Caregiving Systems

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What a fascinating period we are living in! It is the one of integration of neurosciences data to the available models of psychological development theories, as ethology, evolution theories and attachment theory. Perinatal psychiatry is by essence at the crossroad of all these approaches because of its interpersonal specificity: an adult with psychiatric disorder must face to the challenge of childbirth and parenting. It is only recently that perinatal psychiatry and attachment theory have been working together as long as recent studies have demonstrated that treatment of PND per se was not enough to improve the mother-childrelationship. Also, adherence of mothers to treatment in the perinatal period is quite a challenging issue. Attachment system is active during the whole life span and is considered actually as the most efficient interpersonal regulation system of negative emotions as fear and sadness. Biological, psychological and contextual dimensions of the motivational system of caregiving which is reciprocal to the infant's attachment system are better known now. We will consider how mother's attachment and caregiving systems can improve our clinical practice: i.e. What Works for Whom for postnatally depressed mothers?

Partner Violence in Pregnancy and Postpartum

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Aims: a, To review the evidence base on the impact of partner violence (emotional, sexual and physical) in pregnancy and postpartum on: 1) maternal mental health, 2) maternal physical health, 3) foetal and infant health; b, To review the evidence base on interventions for partner violence in pregnancy and postpartum; c, To discuss the new WHO guidelines on violence against women with a particular focus on partner violence in pregnancy and postpartum
Methods: a, cohort study using a birth cohort of 13 617 mother and children dyads in the UK; b, systematic reviews, data from UK Confidential Enquiry into Maternal Deaths and review of WHO guidelines (In press)
Results: Antenatal and postnatal partner violence are associated with high levels of maternal antenatal and postnatal psychiatric morbidity, in addition to physical injuries and rarely, but importantly, homicide. Antenatal partner violence also predicts future behavioural problems at 42 months in the child. Current evidence supports enquiry about partner violence in the context of trained staff in maternity services with clear referral and care pathways for women who disclose partner violence. There is a limited evidence base on interventions but some evidence for domestic violence advocacy and tailored CBT.
Conclusion: Maternity and mental health services need to ensure staff are trained to enquire appropriately about partner violence and safe care pathways are available for women who disclose abuse. Antenatal domestic violence is associated with high levels of both maternal antenatal and postnatal depressive symptoms. It is also associated with postnatal violence, and both are associated with future behavioural problems in the child at 42 months. This is partly mediated by maternal depressive symptoms in the ante- or postnatal period.

Looking for Efficiency in Policy of Mental Health in Perinatality

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Events occurring during pregnancy, childbirth and first days of newborn lasting influence their health. Perinatal care is therefore a major public health issue. This is why, in France, we have implemented perinatal plans for this last 10 years to improve the conditions accompanying parent, especially the most vulnerable
Althought it has some success, the implementation of the last plan was partial. According to the evaluation of the plan, only 45 % of measures were made and at least 15¨% have not been at all; on the ten measures in the plan for population living precariousness and isolation, only one is resulted. Territorial disparities are still considerable which can complicate the care access especially for women in vulnerable situations.
Face to these findings, the remobilization of all national and local actors is essential both to better analyze the cause of the current

situation and to remedy and get more effectively address by more effective coordination. New Regional Health Agencies are now in charge of defining local strategic plan able to meet this challenge and implement health programs linking prevention, care and rehabilitation care closer to local needs. Specially for family identified during a prenatal interview by a midwife or a GP as having social vulnerability, a reflection on anticipated problems and management of immediate postpartum maternal and child must be conducted particularly within the local perinatal network.
The prenatal identification of risk and depressive disorders, psychiatric history, insecurity in all its forms should lead to a coordinated monitoring of prenatal and post birth and to an appropriate early care and postnatal needs for woman and child when support by "medico social sector" is needed.
All the completion of this initiative, the medical treatment of psychiatric disorders, particularly depression management, will have been restructured to improve the effectiveness of the whole system of patient care.

Midwives Training and Status in France

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Nowadays, there are 21.300 practicing midwives in France. Specialists in physiology, those medical professionals practice mainly with women and newborns without pathology.
They have the right to prescribe which has been extended by the publication of two orders defining the medicines they may prescribe.
The profession is regulated by the French Health code. The French Midwives board sees to it that ethics code is observed by giving priority to the respect and the interest of the patient and the newborn.
Traditionally associated with pregnancy and childbirth, but since a law of July, the 21st 2009 (HPST law), midwives can also follow up gynecological prevention for women and prescribe them an adapted contraception.
While some indicators disclose a real women health problem, the participation of midwives profession in health politics in support of women seems essential.
Five years of study are necessary to graduate the midwives degree. The training begins with the competitive examination of the first year for health studies, at the end of which students can reach midwives schools where compulsory professional training complements lessons. Those schools must join the universities before 2015.
Although France distinguishes itself by this complete training, there is a gap between this high level of training and qualification, and the recognition of their skills among health professionals
The midwife is competent to: Provide a medical supervision and care for women, from the pregnancy declaration to the postnatal care; -Help expectant parents to prepare delivery and welcome the child; -Practice echography; -Give birth; Provide medical supervision of postpartum period for new mother and newborn; Accompany and follow breastfeeding; Practice postnatal consultation; Practice perineum and sphincter physiotherapy linked with delivery all along life time; Prescribe contraception and provide gynecological prevention for women without pathology all along their lives.

Perinatal Depression and Low SES in the U.S

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Perinatal depression is prevalent in the United States. The best estimate is that approximately 13 % of women will experience a major depression during the 9 months of pregnancy and that 7 % of women will experience a postpartum major depression in the first 3 months after childbirth. Perinatal depression prevalence rates are much higher among low SES women who are often racial and ethnic minorities, including migrants and refugees. Having few financial resources presents several problems for low SES women that are not so evident with middle class women. Depression symptoms interfere with daily functioning and create extra stress for women who are poor and often single, meaning they do not have the normal buffers that are common for more affluent women. The impact of maternal depression on the infant and other children is greater for low SES women than more affluent women in part because poor women often carry a very large share of child care responsibilities with little opportunity for relief provided by absent fathers and family or paid help. Many low SES women do not recognize that they are experiencing depression because they assume that their symptoms are simply to be accepted as part of their normal life. Even for women who recognize that they need mental health care, there are barriers to that care, which include lack of competent providers, cost, transportation and affordable childcare. For women who do manage to access mental health care there is the problem that for many of these women the care provided does not match their perceived needs. Health and social service programs to address these problems attempt to mitigate stress during the perinatal period; provide convenient services, often in the home; address parenting issues early on; and tailor treatments to the actual and perceived needs of Low SES women. In sum, the mental health problems of low SES women during the perinatal period are significant but increasing efforts to reduce depression risk among these women and to provide innovative programs to mitigate the effects of depression offer hope of better mental health outcomes for these women and their families.

Antenatal and Postnatal Stressors: Molecular and Psychosocial Interactions

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Ultimately the destiny of an individual is the results of multiple inputs—some protective, some detrimental—that occur throughout the development, starting in utero and continuing in childhood and early adulthood. Some of these inputs have clinical relevance and have clear, documented effects on long-term biology and psychopathology: for example, maternal depression, both antenatal and postnatal, or childhood adversity. However, the combinations and interactions of these multiple inputs are infinite, and very difficult to model even in the largest cohorts. Therefore, a variety of approaches are needed, ranging from the molecular to the epidemiological, to try to draw some

meaningful conclusions. In this talk, I will review data from our three main lines of research addressing this issue: the South London Child Development Study, where mothers who were depressed in pregnancy (in 1986) and their offspring have been followed up into offspring's adolescence; the Psychiatry Research and Motherhood Study, where mothers depressed in pregnancy (and their babies) are currently assessed for neuroendocrine response to stress; and a molecular study where the mechanism by which maternal care affects the stress responsivity of the offspring is investigated in a human fetal hippocampal stem cell line. Consistently, we demonstrate that stress affects clinical, biological and molecular outcomes, with relevance, within the perinatal context, for both physical and mental health.

Multidisciplinary Model of Nurse Midwife Administered Psychotherapy for Postpartum Depression

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Background: We are reporting results of an ongoing randomized controlled trial (RCT) of nurse midwife counselor (NMC) telephone-administered Interpersonal Psychotherapy (IPT) for women with postpartum depression (PPD) recruited from eight national clinical sites in the United States. Women with PPD may have poor access to care because of a variety of cultural and logistic factors including mental illness stigma, poor healthcare coverage, financial burdens, fragmentation of mental health services, reluctance to retell their stories, and competing childcare responsibilities. We hypothesized that they would be more willing to receive mental health treatment from an NMC, with whom they have shared a long term relationship during pregnancy and delivery, and who has specialized training in IPT. Aims: The specific aims of this study were to evaluate among women with PPD recruited between 6 and 24 weeks postpartum:(1) the (a) feasibility, (b) acceptability and (c) safety of NMC IPT in collaboration with a psychiatrist team leader and a licensed social worker,(2) the preliminary evidence of efficacy of NMC IPT, (3) and preliminary evidence for the efficacy of NMC IPT in (a) improving maternal functioning, (b) dyadic adjustment and (c) maternal infant bonding. Methods: In this two-armed RCT, we are enrolling 100 women with scores >10 on the EPDS and who meet DSM-IV criteria for major depression. Subjects are being assigned with equal likelihood to 8 sessions of IPT or to a wait list/alternate mental health provider (TAU). Measures include the MINI International Neuropsychiatric Interview, the HAM-D, Dyadic Adjustment Scale, Social Support Questionnaire, Maternal Infant Bonding Scale, Global Assessment of Functioning, and Client Satisfaction Questionnaire administered at baseline, and 4, 8 and 12 weeks post-randomization. Results: Preliminary results suggest that nurse midwife telephone administered IPT for PPD is feasible, acceptable, safe, and efficacious in improving depressive symptoms and maternal functioning. Preliminary results also suggest that women in the treatment group were highly satisfied with with NMC IPT. **Conclusions:** NMC IPT may be a safe and efficacious method to improve access to care for women with PPD who might not otherwise receive treatment.

Maternity as Trauma

Regine Prat

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The thesis proposed concerns the experience of birth seen from the perspective of the parents: their confrontation with the baby's extreme dependence is a trauma that blows to bits previously constructed identity. Access to parentality therefore involves deep modification of the psyche to enable working through of this trauma.
The author discusses the consequences of this conceptualization on three levels:

- Clinical: all clinical forms of post partum disturbances may be considered post-traumatic reactions; this modifies the conception of reception and therapeutic handling of young mothers and their baby.
- Theoretical: this reference to a model of crisis of "normal" identity leads to a change of paradigm in relation to the pathological and nosographic referential model in clinical work.
- Training: there is at present, therefore, a bias and systematic distortion in the basic training of all health care professionals in regard to pathology and knowledge of children as a whole. Some proposals for the training of health care professionals result from these conceptualizations:

Parent Infant Psychotherapy in Situations of Exile and Migration: How to Build a Therapeutic Alliance

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To apply transcultural approach to the construction of a therapeutic alliance will be discussed. This technique is formed by the association of psychoanalysis and anthropology to approach the understanding and treatment of situations in which a family or parent/child group have moved from one culture to another. The importance of cultural myths, taboos and modes of understanding relationships, child development and needs, and manifestations of dysfunctions will be discussed. We will analyse in special the therapeutic consultations during the perinatal period in situations of migrations. This period is particularly vulnerable for children and families. During this time cultural and family myths acquire great importance, they could be denied or abandoned due to the requirements of the "new" culture, while being vividly present in the mind of the parents, even if unconsciously. The use of transcultural principles as complementarity (the importance of anthropological understanding of clinical manifestations) and a therapeutic model of group consultation will be illustrated. The address to these consultations are numerous:

difficulties during pregnancy, difficulties in feeding of the infant, failure to thrive, excessive irritability in babies…The construction of a specific therapeutic alliance is the main parameter of the efficacy of this kind of clinical work. Some data of a research done in this setting about the representation that the patient has of this alliance will be given.

ICD Revision: A New Approach to Define and Link Data for Diseases

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World Health Organization is revising the International Classification of Diseases, 10th edition, (ICD-10) to be released in 2015. Formerly ICD was revised through live conferences with limited participation of technical experts and users. Currently the revision process is using an Internet Platform to allow all interested parties consult, review, comment, and use the new classification in pilot field trials. It is a "Wikipedia" type of commons based platform, but structured and edited by 23 different Topic Advisory Groups. All ICD Categories are accompanied by structured definitions and linkages to scientific data on signs, symptoms, laboratory tests, and genomic properties if available.
In this way, it is expected to arrive at a more coherent and consistent classification that meets the needs of end-users. This approach is particularly important for perinatal disorders and mental health for which there are special efforts to link the data for key uses such as mortality and morbidity. In addition, definition of congenital disorders and tracking of disorders across the life span is treated specifically through temporal properties.
This presentation will provide the background and details of the web based platform (iCAT) and introduce the ICD Revision Beta phase to the participants so that the interested parties could review, comment, or test the classification during its formation stage.

Screening for PPD in an Obstetrical Hospital Population

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Objective: The prevalence of depressive disorders is 21.9 % the year following birth. We aimed to: 1) define the distribution of Edinburgh Postnatal Depression Scale (EPDS) scores in non-treatment seeking postpartum women; 2) evaluate the capacity of the EPDS to identify primary psychiatric disorders, particularly major depressive disorder (MDD), and optimal cutpoints; and, 3) determine secondary psychiatric diagnoses in women with positive screens (EPDS>10).
Method: Women who delivered a live infant in our US academic center were offered telephone screening at 4–6 weeks post-birth. Women with EPDS > or equal to 10 received in-home psychiatric evaluations by experienced clinicians. In this diverse obstetrical sample, 17,601 mothers were approached, 17,426 (99.0 %) were eligible, and 13,442 (77.1 %) were reached. Ten thousand (74.4 %) mothers were screened, 1396 (13.96 %) scored EPDS > or = to 10, and 826 (59.2 %) completed the home visit.
Results: Among 10,000 women, 13.96 % had EPDS > or =10 and 7.03 % had EPDS > or =13. Diagnoses included: 1) Depressive Disorders (68.5 %, majority=MDD); Bipolar Disorder (22.6 %); Anxiety Disorders, (5.6 %); Substance Use Disorders, *N*=4 (0.5 %); Other or none, *N*=23 (2.8 %). The most favorable cutpoint was EPDS>12 (PPV=.994, sensitivity=.714, specificity=.562) for a diagnosis within the All Mood Disorders category, which is consistent with previous studies. However, the capacity of the EPDS to identify specific mood disorder subtypes was relatively poor. The majority of women with primary Mood Disorders had secondary Anxiety Disorders, usually with onset during childhood or adolescence. A striking 22.6 % of women who screened positive on the EPDS had Bipolar Disorder.
Conclusions: The optimal EPDS cutpoint was EPDS>or =12 for the category of All Mood Disorders. The most common diagnosis among all postpartum women was MDD with comorbid anxiety disorder. Strategies to differentiate women with bipolar and unipolar disorders are urgently needed. A comprehensive PPD screening, diagnostic characterization coupled with intervention strategies holds potential to reduce maternal disability and improve function, as well as avert a new generation at risk.

2-Full Presentations

Gender History of Perinatal Mental Health

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Objectives: Consider the History of perinatal mental disorders from a gender perspective.
Results: From the modern age we will retrace the key representations of women madness in puerperium, to emphasize the organic dimension. Even during the sixteenth and seventeenth centuries, physicians insist on the morbid layers and make the woman a weak and sick being, exposed to all kinds of diseases including insanity. It is during the eighteenth century that the behaviors, emotions and feelings of the mother become subject to the scientific outlook, which shakes part of the organic dimension of insanity to include a gradual mental dimension. But it is only in the nineteenth century with the birth of new medical disciplines that the speech is clear and focuses around a diagnosis: puerperal insanity. The interpretation remains essentially linked to the biological dimension of motherhood (the puerperium madness: from pregnancy, childbirth and breastfeeding), even if we start to incorporate a reflection on the implications of the mother madness on the development of children and on infanticide (Marcé).
Methods: The corpus is very large, from the sources of my PhD in History ("Madness of maternity. Theory and practices of internment around diagnosis of puerperal insanity, XVII–XX centuries, France, Italy")
E.g.: Hospital archives XVII–XX (including medical record…), judicial archives, theoretical and practical medical texts XVI–XXI, journals (medical, psychiatry, psychoanalysis), literary sources…

Conclusion: These disorders were originally conceived only as disorders of women during the puerperal state, then conceived as disorders of pregnancy and it is only recently that one could imagine the problems in relation with parenthood. It is only during the twentieth century and with an ambiguous interpretation (organic and mental) that can be traced back distinctions between maternal depression and postpartum psychoses. A long period was required to separate parenthood from the childbirth: a necessary step to integrate also all the people in charge of the first links with the child, that is to say fathers, adoptive parents, relatives and so on. Gender perspective allows questioning biological interpretation of madness and allows evaluating impact of cultural and social history in parenthood care.

Mother & Baby Units in the UK: Historical and Theoretical Perspectives

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Objective: Mother and Baby Inpatient Units (MBUs) are an accepted core component of perinatal mental health services in the UK. However, there is an uneven distribution of these units across the country. Units exist in other countries, but again with varying frequency. The aim of this project is to review the history of MBUs—how and why they were devised and to explore their theoretical importance in the treatment of perinatal mental illness. The available evidence will be evaluated in relation to the use of MBUs.
Methods: A literature review has been completed looking at all articles describing the conception of MBUs and evaluating the utility of MBUs.
Results: The history of MBUs around the world and in the UK will be described exploring the role of key proponents and where their units were initially established. The theories behind the development of this innovation will be explored; looking at mother-infant interactions, the critical period for mother-baby bonding, consequences for the infant and the mother if bonding is disrupted and the development of parenting skills. There is very little evidence supporting the idea that they are best practice. There are many outcome papers reporting the nature of admissions to MBUs and even long term follow up. Comparing groups of women admitted into different settings is practically difficult, whilst randomisation would be unethical. There is however anecdotal evidence such as the Confidential Enquiry into maternal deaths in the UK which show that there are fewer suicides amongst women who are admitted into MBUs. In addition there is the empirical evidence deduced from theoretical approaches to infant mental health, that MBUs are beneficial.
Conclusion: More studies are needed. J Heron is reviewing women who have experienced severe post natal mental illness and exploring their perspectives on MBUs versus other inpatient units. We 'feel' they are a better, more humane form of care & reports from women indicate they are very important. However costs are high and so robust evidence is needed

Is Anonymous Delivery an Acceptable Option to Reduce the Risks of Pregnancy Denial?

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The results of studies conducted in France one in 1987–1989 and in a centre in 1996 are:
1. Pregnancy denial and hidden violence
• Examples of clinical findings
What is the psychodynamic in survivors incest/other sexual abuse in childhood who deny their pregnancy?
Why some women victims/teenagers of domestic violence may deny their pregnancy?
What were the behaviours of women/teenagers (Bosnian, Rwandan) being pregnant as the result of war rapes?
• The risks of pregnancy denial during pregnancy, at birth and after birth: clinical findings
Teenagers/women may express violent impulse thoughts against the foetus or suicidal ideas when pregnancy denial ends. The risk of pregnancy denial at birth may be neonaticide/infanticide, abandonment by the way side, early infant violence or placement in welfare followed by desertion.
2. What can be done to reduce such risks during the prenatal time?
• How to manage a follow-up and to protect the health of both women/foetus
The follow-up may be a difficult challenge for healthcare professionals. Why? And what are the main issues?
• The decision-making and the protection of the newborn/infant
Are they any positive interventions to protect the newborn/infant whatever is the decision-making?
• The follow-up after birth whatever is the decision making
3. Is anonymous delivery an acceptable option after detecting pregnancy denial?
What are the practices in countries with anonymous deliveries legislation in comparison with countries where are implemented electronic baby boxes. May we consider that anonymous delivery is a woman right and a child protection right?
Conclusions: Pregnancy denial should be considered as a major health public issue. Training of healthcare professionals should be implemented in medical/midwife/nurse schools. Countries where legislation of anonymous delivery is implemented should favour clear and positive public and professionals awareness.

Does the Serotonin Polymorphism (5-HTTLPR) Moderate the Association Between Antenatal Anxiety and Infant Temperament?

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Aims: Antenatal anxiety is associated with an increased risk of behavioural disturbances in offspring. Recent work has suggested that the effects of antenatal anxiety on offspring temperament at 6 months are moderated by the serotonin transporter polymorphism, 5-HTTLPR, whereby carriers of the short allele are more negatively emotional

when their mothers reported high levels of antenatal anxiety during pregnancy (Pleuss et al., 2011). These findings, however, are yet to be replicated. The aim of the current study is to assess the same potential moderator (5-HTTLPR) in a large population cohort study, and to determine whether these effects persist into early childhood years.
Methods: Using data from the Avon Longitudinal Study of Children and Parents (ALSPAC) cohort, we assessed whether the association between self-reported maternal anxiety (Crown Crisp Index) during the second and third trimester and child behaviour at 6 months (Infant Temperament Questionnaire) and 42 months (Rutter Revised Scale) was moderated by the 5-HTTLPR genotype (N=4334).
Results: We found no evidence of a significant gene by environment interaction to suggest that the effects of antenatal anxiety on infant behaviour at 6 and 42 months are moderated by the 5-HTTLPR polymorphism.
Conclusion: Our results suggest that moderation of the effects of maternal mood on infant temperament by the serotonin transporter genotype may not extend to the antenatal period, and perhaps the role of 5-HTTLPR in foetal programming is more subtle and variable than previously thought.

Postpartum Blues and Effects on Infants. Dynamics of Maternal Emotion and Newborn Regulations During the First Eight Weeks of Life

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Though widely quoted in scientific literature, post-partum blues (PPB) remains poorly evaluated from a clinical standpoint. It is either overwhelmingly associated with post-natal depression (PND) or seen as a natural component of post-partum physiological states.
In this study we plan to delineate PPB clinically. Women not experiencing PPB are not taken into account. We aim to emphazise the differences between two groups of post-partum (PP) women—those with PPB and those without. We describe the early infant bonding they display, and follow up with results concerning early development of the child.
The follow-up of 22 dyads covers the period from birth to the end of the second month. Both clinically and by using questionnaires (EPDS, NBAS, Murray's interaction's scale, etc.) we report the evaluation of maternal experience, mother-child interactions as well as infant's development.
According to our results, nine mothers did not experience PPB. Among mothers demonstrating PPB, nine experienced mood swings, with positive and negative emotions, closely matching the classic clinical description of PPB. Four had an exclusively "sad-PPB" with stable moods, but no depression. To some extent, it seems important to define two levels of PPB. This is a salient means of eliminating the common confusion with PND.
More importantly, our data shows that some babies' early abilities, such as the "hand-mouth" reflex at the NBAS, are exclusively observed in babies of "classic-PPB" mothers. Associated with the emotional qualities of the mother, this early ability of the baby appears to be a new and relevant source of data, since no other facts are adequately able to explain the correlation. Thereafter, this correlation points out the early nature of mother-baby emotional exchanges, as early as prenatal, in utero life.
In our study, "classic-PPB" and early "hand-mouth" reflex since birth are correlated with well-adjusted mother-baby interactions at 8 weeks. Taking PPB into consideration therefore seems to be an interesting perspective to consider for intersubjective mother-baby bonding and the child's neuropsychomotor development.

French Perinatal Plan: All Pregnant Women should be Offered a Medico-Psycho-Social Interview. Place of the Midwives to do this Interview

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The interview during prenatal period can't work within a perinatal network in the community.
The midwives take an important place in this perinatal planning.
The different French public health plans point out that the quality of the cares during perinatal period shouldn't be focus only on physical security but also on emotional and environmental security during pregnancy.
Therefore, the "2005/2007 plan" was named: "humanity, proximity, security and quality" and included an interview during pregnancy named "4th month -pregnancy interview".
Seven years after the recommendations from the "High Health Authority (HAS)" this plan has been evaluated. Low rate of those interviews is observed (about 20 % of the pregnant women had such interview) and they were mainly from a high socioeconomic level.
The question was: why this interview has been so rarely proposed although officially recommended?
In France, pregnant women benefit to a free medical followed-up. Maternity units are often big units within hospitals. Small maternity units are closing to increase the number of childbirth in high level of security units, and often without increase of the number of midwives in those big units. Therefore midwives have to concentrate more on physical security of the women and their children, and have less time to take care of them and psychic insecurity grows. It is not rare that a pregnant woman meets 7 to 8 different professionals during the time of her pregnancy. More often, these professionals don't know each other, don't coordinate their actions, act in a juxtaposition way. The prenatal class with a midwife is also too rarely used.
How can we manage to make this interview done as earlier as possible, in order to allowed women who speak, ask questions and share her couple projects for this coming child and his birth?
Having an efficient perinatal network between midwives, medical, social and psychological professionals, is a basis for such interview efficiency so that each family can be followed and have the support they need; users associations may contribute too.

Perspectives and Outcomes of a Collaborative Care Model for Postpartum Depression in an Urban Pediatric Clinic

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Aims: 1) To describe the acceptability, engagement and adherence outcomes of a collaborative care model designed to provide mental health treatment for postpartum depression to low-income mothers in a pediatric setting; 2) To describe the maternal perspectives regarding mental health treatment provided in a pediatric clinic
Methods: Mothers of infants 12 months or younger who had high EPDS scores, were not receiving mental health treatment, were 18 years or older and whose infants received care in a specific urban clinic were invited to participate. Subjects received up to 12 treatment visits, over 18 weeks, with the psychiatric nurse practitioner and support for social and practical concerns through the pediatric social worker and outreach worker. Treatment was provided in the pediatric setting. Quantitative and qualitative analyses were conducted. Descriptive statistics and qualitative themes will be presented.
Results: Providing depressed low-income mothers with mental health treatment in a pediatric clinic setting was acceptable and helpful to mothers who participated. 73 % of 22 eligible mothers attended the first session. There was a bimodal distribution of attendance and adherence to care with 81 % attending 1–4 visits and 19 % attending 8–12 visits. Provider burden for follow-up with women was extensive. Despite multiple options to overcome logistical barriers, internal barriers (difficulty with motivation to attend, difficulty accepting the need for treatment, being unsure of its value) were identified as highly influential on attendance. The pediatric clinic setting was regarded positively.
Conclusions: The collaborative care model provided in a pediatric clinic setting is acceptable and helpful but, for this low-income population, is insufficient to overcome the many other challenges to engaging in mental health treatment. Identifying women who are ready to engage in ongoing treatment vs. women who are in need of crisis management is a challenge but provides a goal for future services development.

Pregnancy and Postpartum Dreams in Healthy Women

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Background and Aims: Pregnancy and the postpartum period are significant events that lead women to reappraise their lives and to modify their orientation to the world. Previous research has suggested that this transformative process is reflected in dreams and that dreams during pregnancy are related to high frequency of specific content. However, potential changes in dream content from late pregnancy to the postpartum period have not been explored. The aim of this study is to describe and explore the differences in pregnancy and postpartum dream content in healthy women.
Methods: During the third trimester of pregnancy, 20 women completed measures of mood and kept a dream journal for seven days. Among these participants, 16 completed the same procedure at 10–12 weeks postpartum . Mood scales included the Edinburgh Postnatal Depression Scale and the Depression Anxiety Stress Scale. A total of 98 antenatal and 65 postnatal dream reports were analysed using the Hall and Van de Castle Coding System for Dreams, the contents found in them where compared to the female norms reported by the authors.
Results: There is a similar pattern of content in antenatal and postnatal dreams. Both periods were characterized by a higher frequency of family and baby characters and a lower frequency of friends. Friendly interactions between dream characters were more frequent than aggressive interactions, as were unfamiliar settings over familiar ones. Similarly, the percentage of dream reports with at least one sexual interaction was significantly reduced. References to the pregnant belly increased in pregnancy dreams but not in postpartum dreams, whereas the frequency of baby characters was higher during the postpartum period than pregnancy.
Conclusion: These findings suggest that dreams consistently reflect changes that take place within healthy, non-depressed women during perinatal periods, thus supporting the Continuity Hypothesis of Dreaming. Dream contents during both pregnancy and 10–12 weeks postpartum revealed women's orientation towards aspects that may be helpful for a successful transition to motherhood, such as an increased awareness of the presence of the unborn and newborn baby, an enhancement of protective functions to take care of an infant, and a strong focus on family relations.

Do Infant Behavior and Physiological Characteristics Account for the Quality of Mother-Infant Interaction?

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Background: Past research has pointed out the association between specific aspects of infant's characteristics and the quality of mother-infant interaction. Still, there is lack of research considering simultaneously behavioral and physiological aspects of infant functioning and the association to the quality of mother-infant interaction.
Aim: (1) identify and profile groups of infants according to their behavioral and physiological characteristics, considering their neurobehavior organization, social withdrawal behavior and neuroendocrine reactivity to stress, and to (2) analyze group differences on the quality of mother-infant interaction.
Method: Ninety seven 8 weeks-old infants were examined using the Neonatal Behavioral Assessment Scale (NBAS, Brazelton & Nugent, 1995) and the Alarm Distress Baby Scale (ADBB, Guedeney & Fermanian, 2001). Cortisol levels were measured both before and after routine inoculation between 8 and 12 weeks. At 12 to 16 weeks mother-infant interaction was assessed using the Global Rating Scales (GRS, Murray, Fiori-Cowley, Hooper, & Cooper, 1996).
Results: Three groups of infants were identified: (1) "Withdrawn"; (2) "Extroverted"; (3) "Underaroused". Differences between them were found regarding both infant and mother behaviors in the interaction and the overall quality of mother-infant interaction
Conclusion: The identification of psychophysiological profiles in infants is an important step in the study of developmental pathways leading to normalcy or to psychopathology.

The Effects of Pre-Natal Stress on Infant Brain Development

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There is increasing evidence that prenatal maternal 'stress' (a generic term that includes anxiety and depression) can have significant effects on longer-term child-health by, for example, increasing the risk for serious neurodevelopmental disorders such as conduct disorder, autism, and attention deficit hyperactivity disorder (ADHD). However, the biological basis of this risk remains poorly understood.
Animal studies have suggested that the transfer of stress-hormones, such as cortisol, mediates maternal prenatal stress across the placenta, leading to abnormal development of the limbic ('social brain') system. One of the primary white matter tracts in this system is the uncinate fasciculus (UF). This tract links amygdala and orbitofrontal cortex (i.e. key emotional and social brain regions).
In the current study 35 children (6–8 years old) who had been recruited during pregnancy, underwent in vivo diffusion tensor magnetic resonance imaging (DT-MRI). We used tractography analysis to explore associations between (i) antenatal stress measures (number of maternal antenatal stressful life events, and in utero cortisol concentration) and (ii) indices of white matter integrity (fractional anisotropy (FA) and perpendicular diffusivity (Dperp)) of the UF.
Our findings tentatively suggest that neurodevelopment of the limbic system may be modulated by maternal stress during pregnancy. The implication of these results and the need for further infant studies in this area will be discussed.

Father Absence and Depressive Symptoms in Adolescent Girls from a UK Cohort

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Aims: A growing number of studies suggest a link between childhood family structure (i.e. parental separation and divorce) and risk of depression in adolescence, but few have prospectively examined the effects of father absence on occurrence of depressive symptoms while controlling for a range of potential confounding factors. The main aim of our research was to examine (1) whether girls from father-absent families are at higher risk of developing depressive symptoms at age 14 years; (2) differential effect of father absence occurring early (birth to 5 years) and later (5 to 10 years) in childhood on development of depressive symptoms at age 14 years.
Methods: The study sample comprised girls born to mothers in the UK-based Avon Longitudinal Study of Parents and Children who had data on father absence occurring from birth to age 10 years (n=4,334), levels of depressive symptoms, and prospectively measured confounding factors relating to socio-economic disadvantage, maternal characteristics and marital conflict. We used binary logistic regression to examine the relationship between father absence at different age periods in childhood and depressive symptoms adjusting for possible socio-economic and familial confounding factors measured prospectively during the antenatal and early childhood periods (0–5 years).
Results: Father absence in early childhood (birth to 5 years) was independently associated with increased risks of depressive symptoms at age 14 years after accounting for a range of confounding factors, including various indicators of socio-economic disadvantage, exposure to marital conflict and maternal psychopathology (1.62 [1.12, 2.34], p=0.010). Conversely, father absence in middle childhood (5 to 10 years) was not associated with depressive symptoms in adolescent girls aged 14 years (0.98 [0.58, 1.68], p=0.954).
Conclusion: Early exposure to father absence increases girls' vulnerability to depressive symptoms in mid-adolescence independent of adverse socio-economic circumstances, exposure to marital conflict and maternal psychopathology preceding family dissolution. Present findings lend support to the importance of father absence in early childhood as an aetiological factor for depressive symptoms in adolescent girls. Family-based programmes aimed at early prevention and intervention could target young girls from families at risk.

Exercise and Postnatal Emotional Wellbeing: A Randomised Controlled Trial Comparing Two Exercise and Support Programs

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Aims: Compare the effect of two different exercise and support programs on depressive, anxiety and stress symptoms in postnatal women.
Methods: During a pragmatic RCT, eligible women (EPDS>12, baby <18 months of age) were randomly assigned to one of two combined exercise and support programs: a facilitated-group program or a self-directed program. All participants were asked to complete a weekly exercise plan, read materials concerning emotional wellbeing and general health and complete pen and paper exercises. In addition, facilitated group participants met weekly to exercise with a fitness trainer and attend a support group. EPDS and DASS scores were measured before (T1) and after (T2) the programs and 3 months later (T3).
Results: 99 eligible women completed the T1 questionnaire; 73 (73.7 %) and 71 (71.7 %) completed questionnaires at T2 and T3, respectively. Mean EPDS scores significantly decreased between Times 1 and 2 for both programs—15.5 (95 % CI 14.4–16.6) to 9.7 (95 % CI 8.4–11.0) for group participants and 14.5 (95 % CI 13.1–15.9) to 9.8 (95 % CI 7.8–11.9) for self-directed program participants. Reductions were maintained at T3 for both programs.
Intention to treat analysis revealed no significant differences in the mean EPDS or DASS scores for the two groups at any time point:
EPDS
T1 mean difference −1.0 (p=0.9), T2 mean difference 0.1 (p=0.4), T3 mean difference −1.6 (p=0.8)
DASS (depression)
T1 mean difference −2.3 (p=0.9), T2 mean difference −5.0 (p=0.6), T3 mean difference −1.0 (p=0.6)
DASS (anxiety)
T1 mean difference 0.1 (p=0.5), T2 mean difference 1.4 (p=0.2), T3 mean difference 2.6 (p=0.2)
DASS (stress)
T1 mean difference −0.7 (p=0.7), T2 mean difference −1.2 (0.7), T3 mean difference 1.6 (p=0.7)
Conclusion Participants in both programs experienced a reduction in depression, anxiety and stress scores following 8 weeks of exercise and support with the decrease maintained 3 months later. This clinically

relevant reduction, combined with the lack of difference between the program outcomes, suggests that both programs may be useful for managing symptoms of postnatal depression, anxiety and stress.

Very Premature Child Birth and Early Mother-Infant Relationship: the OLIMPE- Epipage 2 Cohort

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Premature birth is a stressful experience affecting mother-infant interaction characteristics. Negative experiences just after the birth could have a significant and long-lasting influence on child outcome. The quality of the early mother-infant interaction is therefore considered as one of the multiple factors that may influence the prognosis of the very preterm babies. As part of EPIPAGE 2 (Etude Epidémiologique sur les Petits Ages Gestationnels) the 2nd French prospective population-based cohort study, OLIMPE (Observation Lien Mere Prématuré) considered for inclusion all singleton live births occurring from 24 to 32 completed weeks of gestation (WG) between May and December 2011 and hospitalised in 13 participating NICU from 9 French regions. A multidisciplinary network including neonatologists, psychiatrists, psychologists, psychomotor therapists and epidemiologists led this research. The main purpose was to explore the impact of the quality of the mother-child interactions on children outcome at 5 years of age, including behavioural and emotional development, communication, social integration and autonomy. Exclusion criteria were: severe neonatal complication, infant malformation, chromosomal abnormalities, maternal psychiatric illness and/or drug/alcohol abuse, and poor maternal French knowledge.
To provide a standardized observation of mother-child interaction, the Massie Campbell scale (ADS Scale) was used. Two stages of observation were planned: at the end of the child hospitalisation and at 6 months of corrected age, by observing the mother and child reaction during a routine paediatric examination. At 6 months, the social withdrawal behaviour of the child (ADBB: Alarm Distress Baby) was also observed. Maternal mental state was assessed with 3 self-rating questionnaires (Center for epidemiologic studies depression scale: CESD, State Trait Anxiety Inventory: STAI, Perinatal post traumatic stress questionnaire: PPQ). The ADS and ADBB scales required a training and calibration of the observers realized before the start of the inclusions and pursued regularly during all the study. Neonatal and obstetrics data as well as information on child development will be extracted from EPIPAGE 2 database for the 172 dyads included. This project has a preventive dimension and we aimed to facilitate the detection of the high-risk dyads.

Is there a Relationship Between Postpartum Depression and Maternal Obesity: A Systematic Review

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Context: The possible relationship between maternal obesity and the development of postpartum depression has not been well studied. A significant increase in the prevalence of women being overweight and obese pre-pregnancy makes this a particularly timely issue.
Objective: A systematic review was conducted to determine whether a relationship exists between postpartum depression and maternal excess body fat mass (obesity).
Data Sources: We performed electronic searchers in Medline (1966–2012), CINAHL (1982–2012), Embase (1980–2012) and SCOPUS using specific keywords. A hand-search of reference lists of articles obtained was also conducted.
Study Selection: Sixty-one articles were reviewed of which 35 specifically provided data to be extracted related to postpartum depression and maternal excess body fat mass.
Data Extraction: Data were independently extracted using a detailed data extraction form.
Results: Obese mothers (BMI >30 kg/m2) demonstrated a greater frequency of depression (26.1 %) than both the overweight/pre-obese group (BMI=25–29.9 kg/m2, 17.3 %) and the normal weight group (BMI=18.5–24.9 kg/m2, 10.1 %). Women were more likely to report depression with greater weight retention after pregnancy and described depression as a barrier to postpartum weight loss.
Conclusions: It appears that overweight and obese mothers face a greater risk of developing postpartum depression in addition to other medical complications associated with pregnancy. It is possible that maternal obesity is a modifiable risk factor that may be important in preventative interventions.

Preconception Counselling in Women with Mental Illness -an Approach to Safer Child Birth

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Aims: The aims of the study were 1) To describe the clinical and demographic profile of women attending perinatal psychiatric services for PCC 2) to assess the impact of PCC on women's decisions about pregnancy3) to assess the impact of PCC on psychotropic exposure, antenatal care and pregnancy outcomes
Methods: The sample included all women attending the Perinatal Psychiatry Service at National Institute of Mental Health and Neurosciences, Bangalore, India for PCC. These women were either self referred or referred by treating psychiatrists and obstetricians. A structured assessment form was used to collect details regarding the psychiatric condition, functioning, treatment details, and obstetric history. Informed consent was obtained. Components of PCC included readiness for motherhood, medication safety, medication and fertility, autonomy in decision making and the course of illness. Data regarding outcomes was obtained from the assessment forms and case records.
Results: The total number of women attending perinatal services for preconception counseling was 107. Data was available for 88 women. The mean age in years of the women was 27.20±5.26. Diagnosis included bipolar disorders (56 %), schizophrenia and other psychotic disorders (27 %) and non psychotic disorders (17 %). All women were receiving psychotropics except two. More than 60 % of the women were receiving two or more

psychotropics. Frequency of psychotropic use was—antipsychotics 59(67 %), mood stabilizers 40 (45 %), antidepressants 16(18 %); trihexyphenidyl 24 (27 %). Only 10 of 88 women were on folate supplementation. 51 women decided to conceive after PCC and 36 women conceived. Following PCC, changes in the number, safety profile and dosage of psychotropic prescriptions were made in 63 (72 %). All women were started on folate supplementation. The pregnancy outcome data was available for 30 women.

Conclusions: Women with mental illness receiving psychotropics are more likely to be on polypharmacy, unsafe drugs, drugs that may hamper fertility and less likely to be on folate supplementation. This study demonstrates a feasible and clinically useful method of encouraging planned and safer pregnancies.

Maternal Reflective Function Scale: The Development of a Scale for Primary Health Care Services

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Background: The development of a secure attachment is considered one of the most crucial milestones in the first 12 months of an infant's life. Furthermore, it is thought that reflective function is a key component in the developing attachment relationship. Approximately 20–30 % of new mothers will struggle with tuning into their baby and responding sensitively, with postnatal depression a well-recognised risk factor for the attachment relationship.

Primary health care providers have a key role in the screening and surveillance of common developmental problems in young children. They are well placed to monitor mother-infant relationships within the context of universal child health checks and targeted home visiting programs.

Aim: The aim of this study is to develop and conduct preliminary validation of a cost effective, brief self-report scale that is acceptable to mothers of young infants to identify potential difficulties with reflective function.

Method: A development scale was constructed with an over inclusive item set generated from a multidisciplinary, intersectorial expert group and verbatim statements from a representative, community focus group of mothers. Pilot testing of items occurred with the focus group. Approximately 300 mothers of young infants (<12 months) are being recruited from primary health centres in three regional areas in North Queensland. Basic demographic information is being collected about mothers and their infants. Three other other scales are being administered concurrently to examine convergent and divergent validity. Exploratory Factor Analysis will be used to examine the underlying factor structure. Analysis with the Rasch Model will be conducted to explore item fit and refine the scale.

Results: The development scale and demographics of the North Queensland region will be presented and discussed in a primary health context.

Conclusions: This preliminary study will be discussed in relation to the scale's overall utility and acceptability as a screening tool to detect difficulties with reflective function in mothers attending primary health centres. Further validation of the final scale that includes different health care and cultural settings is recommended.

Community HUGS Intervention: A Therapeutic Playgroup for Vulnerable Women Focused on Their Interaction with Their Babies

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The impact of postnatal depression on families is profound. Each year in Australia around 30,000 women experience postnatal depression. Many infants of mothers with postnatal depression (PND) have poor developmental outcomes (cognitive, social and behavioural) and this effect appears to be mediated by interactional difficulties. Surprisingly, successful treatment of maternal depression does not necessarily improve the mother-infant interaction.

This paper will present data on the long-term impact of postnatal depression on infants, the limited impact of only treating maternal mood symptoms and the added benefit of two brief, cost-effective interventions designed to address early relationship difficulties. The HUGS program Happiness, Understanding, Giving and Sharing and an expanded community-run program (CHUGS) that can be delivered as a playgroup and rolled-out into the community to ensure that all children of depressed mothers get the best start in life. Program details and video footage of the intervention will be included. Experiences of training others to deliver the intervention will be shared.

Design and Method: Data was from three sources (1) a longitudinal cohort of postpartum depressed and non-depressed women and their infants 0–42 months; (2) a treatment study of 162 depressed women using a randomized controlled design; (3) two pilot studies of specialised parent-infant interventions.

Results: The longitudinal cohort showed elevated parenting stress persisting until 3.5 years postpartum. In the treatment study, 73 % of depressed women had clinically dysfunctional mother-infant relations before treatment. This rate was still 56 % after CBT treatment for depression. During 3 weeks of HUGS specialised parent-infant intervention, there was a rapid decline in parenting difficulties. Community HUGS playgroup also resulted in improvement in depressed mood, $p<.05$, parenting stress, $p<.05$, sense of parenting competence, $p<.05$, and improved parent-infant interactional reciprocity.

Conclusions: Mother-infant difficulties due to PND are persistent and treatment targeted at maternal mood only has a limited impact on these. There is an urgent need for evidence-based treatments to address these difficulties. We present evidence of the effectiveness of two brief, cost-effective early interventions for enhancing the quality of mother-infant interactions.

Perinatal Mental Health and Infant Development in Vietnam

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Aim: There is growing evidence that common perinatal mental disorders (CPMD) are two to three times more prevalent among women living in low- than in high-income settings, but as yet few resource-constrained countries have local data. In Viet Nam 29.9 % (95%CI 25.2–34.7) women experience CPMD. Prevalence is higher among those in rural provinces (OR 2.17; 95%CI 1.2–3.9); exposed to intimate partner violence (OR 2.11 95%C 1.2–4.0); fearful of other family members (OR 3.4; 95 % C 1.05–10.71) or experiencing coincidental life adversity (OR: 4.40; 95 % CI: 2.44–7.93). The aim of our current study is to establish the relationships among antenatal mental health problems and micronutrient deficiencies, early parental caregiving and infant development in rural Viet Nam.
Method: A prospective cohort study conducted in randomly selected communes in Ha Nam a typical poor Red River delta province in northern Viet Nam. Psychological, biological and socioeconomic data were collected from women in the first and third trimesters of pregnancy and from mothers and infants 6 weeks and 6 months post-partum.
Results: In total 497/523 (97 %) eligible women were recruited and provided data at 16.6 (2.9) weeks gestation and 413/497 (83 %) women provided complete data. Overall 39.9 % women met criteria for CMD in either early or late pregnancy; 6 % had iron deficiency anaemia; 83 % had a urinary iodine concentration <150 mc/L, 32 % reported food insecurity and 19 % intimate partner violence. Women with both early and late antenatal CMD were less likely to participate in essential preventive health care including use of iodized salt and taking iron supplements. Infants of mothers with antenatal CMD had a 0.5 standard deviation lower; and with antenatal anaemia a>1 SD lower Bayley Scale for Infant Development cognitive subscale score at 6 months of age when controlling for other socioeconomic factors.
Conclusion: Mental health interacts with nutritional and socioeconomic risks in reducing the health of pregnant women and the development of their infants in resource-constrained settings. Interventions to promote early childhood development in these contexts are more likely to succeed if integrated with cross-sectoral strategies to empower women and improve their mental and physical health.

Predictors of Infant Foster Care in Cases of Maternal Psychiatric Disorders

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Joint mother-baby inpatient care in a Mother-baby unit (MBU) aims at treating mother's disorder, enhancing a secure mother-baby attachment and promoting the child's development. Even when separation from the mother at discharge is ultimately necessary for child's safety, a joint admission in a MBU provides the time to arrange the best possible child placement, and help the mother to face this outcome. The first full time joint admission of a mother and a baby in a psychiatric hospital took place in Great Britain in 1948 (Main, 1948). Since them several other mother-baby units were open in England (Brockington, 1996), France, Belgium and Luxembourg (Cazas & Glangeaud-Freudenthal, 2004), Nederland, Australia, New Zealand, Germany, India and last year in USA.
The aim of our study was to investigate the factors associated with mother-child separation at discharge, after joint hospitalization in psychiatric mother-baby units (MBUs) in France and Belgium. Because parents with postpartum psychiatric disorders are at risk of disturbed parent-infant interactions, their infants have an increased risk of an unstable early foundation. They may be particularly vulnerable to environmental stress and have a higher risk of developing some psychiatric disorders in adulthood.
Methods: This prospective longitudinal study of 1018 women with postpartum psychiatric disorders, jointly admitted with their infant, to 16 French and Belgian psychiatric mother-baby units (MBUs), used multifactorial logistic regression models to assess the risk factors for mother-child separation at discharge from MBUs. Those factors include some infant characteristics associated with personal vulnerability, parents' pathology and psychosocial context.
Results: Most children were discharged with their mothers, but 151 (15 %) were separated from their mothers at discharge. Risk factors independently associated with separation were: i) neonatal or infant medical problems or complications; ii) maternal psychiatric disorder; iii) paternal psychiatric disorder; iv) maternal lack of good relationships with others; v) mother receipt of disability benefits; vi) low social class.
Conclusion: This study highlights the existence of factors other than maternal pathology that lead to decisions to separate mother and child for the child's protection in a population of mentally ill mothers jointly hospitalized with the baby in the postpartum period.

Using Videos in Mother-Baby Units

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Objectives: Showing the benefits of using a tool assessing mother-infants face to face interactions with videos in a Mother-Baby Unit (MBU) in Bordeaux. Our experience leads us to use it as well as a care tool. We propose video feedback which allows mothers to get aware of their interacting style and we discuss the way it can be improved.

Method: He Global Rating Scale (GRS) has been designed by A. Fiory Cowley, L. Murray and M. Gunning (ref) for assessing mother-infant face to face interactions between 2 and 6 months. Our team has been trained in 1998 in the framework of a European founded transcultural study on postnatal depression (Gunning & al. 2004).
Every mother admitted in our unit is being proposed a video when baby's between 2 and 6. After coding the video she is welcomed to watch it with team (psychologist and a nurse).
Results: About ¾ of mothers accept being filmed. We have 180 videos. The feedback session is very often quite profitable as mothers realize their interacting patterns. After hearing mother's point of view, staff always underlines mother and baby resources and discuss difficulties encouraging mothers on specific skills to work (ex. watch closely baby's reaction to see if mother's not intrusive).
Conclusion: We have now been experiencing the GRS for years. Beside its assessing qualities we find it of major interest to take care of mothers with their infant in MBU. Generally mothers also find it a useful tool in helping them improving their interactions.
Bibliography
Fiori-Cowley A., Murray L., Gunning M.:Global Ratings for Mothers-Infant Interactions at 2 and 4 months, 2nd edition, Winnicott Research Unit, University of Reading, Department of Psychology, 3 Early Gate, Reading, RG6 6AL, UK.
Gunning M, Conroy S, Valoriani V, Figueiredo B, Kammerer MH, Muzik M, Glatigny-Dallay E, Murray L, TCS-PND Group, Measurement of mother-infant interactions and the home environment in a European setting: preleminary results from cross-cultural study. Br J Psychiatry Suppl. 2004 Feb; 46:s38-44.

Women with Postpartum Depression/Maternity Blues: To Create Awareness Through Religion

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Aim: The aim of this paper is to draw attention to how physical and mental health care of women is almost ignored in the developing societies and women do not have proper access to health care for gender disparity and other reasons. Large number of women do not avail antenatal care and post natal care. Thus women who suffer from postpartum depression (50–60 % of women are affected at their first childbirth), they remain undiagnosed and untreated. The Holy Quran urges Muslims to take care of women and treat them with good behavior and to provide mental support and proper nutrition. As religion acts like a force in human life, the researcher wants to show that taking care of women after childbirth is also a great religious duty.
Method: A small group of women of reproductive age were selected from lower socio-economic status. Qualitative survey had been done to learn about their perception, knowledge, opinion etc. about after the delivery of the baby. During the interactive discussion some verses on Maryam, (Mary, Mother of Jesus) were considered and placed to reinforce the issue of mental support for women. Time duration was one hour and researcher herself acted as moderator.
Result: Most of the women mentioned about many issues during and after birth of the child. One fifth of the participants could mention about mental distress unclearly. All of the participants agreed that post natal care is important for them and a mother soon after her childbirth is therefore in need of health care, proper family care and psychological support which the Quran enjoins strongly.
Conclusion: The above approach to disseminate knowledge about health through religious word may bring behavior change among people in a religious society. Thus women may avail health care and may recover from postpartum depression.

Longitudinal Follow Up of Postpartum Blues and Depression

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Aims: Severe postpartum blues are a risk factor for PPD in the first 6 months after delivery. This study explores whether this vulnerability increases over time, is specific to postpartum depression; to depression unrelated to childbearing and whether it confers long term morbidity on the child.
Method: 103 women with severe blues and controls (with no blues) who participated in the original study were contacted. Those who consented were interviewed using the Structured Clinical Interview for DSM IV (SCID) and completed the Premenstrual Assessment Form, the Work, Leisure & Family Life Questionnaire (WLFQ), Short Form 36 Health Survey Questionnaire (SF36) and the Strengths and Difficulties Questionnaire (relating to their first-born child). We analysed the relationship between postpartum blues, subsequent caseness, child psychopathology and maternal impairment. These variables were modelled as a directed acyclic graph (DAG): blues was considered prior to SCID caseness, and caseness considered prior to both SDQ and WLFLQ totals. Modelling was by the specialist graphical modelling package MIM version 3.2.0.7
Results: 146 (71 %) of the original sample were interviewed (mean 13.9 years after birth of their first child). 84 % met SCID caseness criteria at follow-up interview. A single best model was found: blues predicted caseness (p=.0003); caseness predicted SDQ scores only (p=.017); SDQ and WLFLQ were associated (p=.001); no other edges were significant. Further analysis revealed that severe blues and the number of children predict the number of depressive episodes in the follow up period whereas a past history of depression has less impact and time itself none.
Conclusion: Childbirth itself increases vulnerability to long-term mental health problems, with blues an early marker of high vulnerability. Impairment resulting from caseness appears to be mediated by the mental health of the child; past history of depression has a lesser effect.

Childhood Predictors of Postpartum Psychopathology and Caregiving Quality Among Teenage Mothers

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Aims: The retrospective reports of adolescent mothers suggest that antisocial history is associated with reduced maternal responsiveness (Cassidy et al., 1996), and longer term difficulties in parenting and child outcomes (Rhule et al., 2004). Other research has shown that conduct disorder (CD) in girls is reciprocally linked to own-experienced suboptimal parenting (Hipwell et al., 2008) and often predates depression onset. Although each of these factors is likely to contribute to adolescent parenting behaviors, the prospective relationships between them remain largely unexplored. The current, longitudinal study examined: 1) the effects of childhood CD, depression, and parenting experience on adolescent caregiving quality; and 2) the moderating effects of postpartum depression (PPD) on these relationships.
Method: The sample comprised 87 urban-living mothers (ages 12–19 years, 92 % minority race) who have participated in the Pittsburgh Girls Study since ages 5–8 years. At 4 months postpartum, the adolescent mothers were interviewed, and filmed in face-to-face interactions with their infant. Interactions were coded by independent researchers and high levels of inter-rater reliability were achieved.
Results: Principal Components Analysis revealed three dyadic factors (negative hostility, warm involvement, and intrusive-withdrawn). After controlling for demographic variables, the results of regression analyses showed that a CD diagnosis by age 11 predicted levels of negative hostility in the postpartum period ($\beta = .25$, $p < .05$). Childhood depressive disorder was unrelated to later parenting behavior. PPD had a significant additive effect on the model ($\beta = .21$, $p < .05$) but did not moderate the effects of early CD. When age 11 parenting experiences (harsh punishment, low parental warmth, parental hostility, parental stress) were examined, harsh punishment also predicted adolescent negative hostility ($\beta = .23$, $p < .05$), and this relationship was moderated by PPD ($\beta = -.94$, $p < .05$). Plotting the regression coefficients indicated that at low levels of childhood harsh punishment, PPD greatly increased the risk for adolescent negative hostility. In contrast, there was no effect of PPD on adolescent parenting among mothers who experienced high levels of harsh punishment in childhood.
Conclusion: The presence or absence of harsh punishment in childhood may be important in explaining different pathways to adolescent parenting behaviors. The results also point to targets for early prevention efforts.

The Effectiveness of Services for Acute Severe Perinatal Illnesses: Results from a National Pilot Study of Mother and Baby Units (the ESMI Study)

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Background: There is very little evidence on the effectiveness and cost-effectiveness of mental health services for women with acute severe perinatal mental disorders. This pilot work aimed to: 1. Investigate the feasibility of identifying women with acute severe perinatal disorders across English NHS Mental Health Trusts; 2. Pilot measures within three treatment settings for acute severe disorders—Mother and Baby Units (MBU), general wards and Home Treatment Teams (HTT); 3. Obtain pilot data on outcomes
Method: 1.Telephone census in 28 Trusts (included 7 MBUs in addition to general wards and HTTs); 2. Pilot instruments and measure pathways to care and outcomes using standardised validated instruments and a qualitative interview
Results: Over a 12 week period, 66 women were admitted to MBUs, 98 to general wards and 264 to Home Treatment Teams. 21 women were recruited (from 12 different Trusts; 12 women on MBUs, 3 from HTTs, 6 from acute wards).
Pathways to care—In 50 % the patient's family, friends or neighbours were first to identify the need for urgent help. In 25 % of cases patients sought help for themselves and in the remaining 25 % the crisis was identified during a planned contact with mental health professionals. 8 women were detained under the Mental Health Act.
Acute ward patients rated the quality of the service they received as fair (median score 2, range 1–3), HTT patients rated good (median 3, range 3–4), as did MBU women (median 3, range 2–4).
From the qualitative data HTT patients were unhappy at having to build relationships with a large number of team members; MBU women reported lack of psychological help, not enough 1–1 time, and not enough input for partners. Acute ward patients reported feeling watched, rough handling by staff (restraining), and a sub-optimal environment.
Conclusions: It is feasible to recruit women with acute severe perinatal mental disorders nationally. We therefore aim to carry out a cohort study to evaluate the effectiveness and cost-effectiveness of MBUs compared with general psychiatric wards and Home Treatment Team services with short term and long term outcome data on effectiveness and cost-effectiveness.

Suicidal Ideation on the Edinburgh Depression Scale: What Does Question 10 Really Mean?

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Background: The Edinburgh Postnatal Depression Scale is widely used in primary and maternity services to screen for perinatal depressive disorders, and includes a question on suicidal ideation (question 10). We aimed to investigate the prevalence, persistence and correlates of suicidal thoughts in postpartum women in the context of a RCT of treatments for postnatal depression
Methods: Women in primary care were sent postal questionnaires at 6 weeks postpartum to screen for postnatal depression before recruitment into an RCT. The Edinburgh Postnatal Depression Scale (EPDS) was used to screen for postnatal depression and in those with high levels of symptoms, a home visit with a standardised psychiatric interview was carried out using the Clinical Interview Schedule-Revised version (CIS-R). Other sociodemographic and clinical variables were measured and women who entered the trial were followed up for 18 weeks.
Results: 9 % of 4,150 women who completed the EPDS question relating to suicidal ideation reported some suicidal ideation (including

hardly ever); 4 % reported that the thought of harming themselves had occurred to them sometimes or quite often. In women who entered the randomised trial and completed the EPDS question relating to suicidal ideation (n=253), suicidal ideation was associated with younger age, higher parity and higher levels of depressive symptoms in the multivariate analysis. Endorsement of 'yes, quite often' to question 10 on the EPDS was associated with affirming at least two CIS-R items on suicidality. We found no association between suicidal ideation and SF-12 physical or mental health or the EPDS total score at 18 weeks.
Conclusions: Healthcare professionals using the EPDS should be aware of the significant suicidality that is likely to be present in women endorsing 'yes, quite often' to question 10 of the EPDS. However, suicidal ideation does not appear to predict poor outcomes in women being treated for postnatal depression.

An Evaluation of the Communication Skills of Midwives in the Identification of Psychological and Emotional Issues in Pregnant Women

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Aims: This study aims to evaluate the communication skills of midwives in their identification of psychological and emotional issues in pregnant women.
Methods: The interaction between midwives and women will be observed during the first antenatal visit and booking appointment. Attributes of good communication such as "personal connection", "eye contact", "listening and attentiveness", "giving information", "clarification checking", "recapping" and "allowing woman to talk without interruption" will be assessed by a non-participant observer using an observation scale.
In addition to this, midwives will be observed on their use of the "Whooley" questions in their antenatal consultation with women. The "Whooley" questions are a two-question case finding instrument which have been recommended by the National Institute for Health and Clinical Excellence [NICE] to be used by midwives and other health professionals in the detection of depression in pregnant women.
Immediately after the clinic session midwives will be interviewed and asked to reflect on their communication and relationship building skills.
Results: Results from this study are pending. However this study follows on from a previous research project, conducted by Patricia Jarrett, which indicates that midwives often lack the confidence and skills to support women with emotional problems in pregnancy. Although recognizing the importance of good communication in their interaction with women, midwives were sometimes unsure of how to encourage women to "open up" about the symptoms they were experiencing. Midwives were also reluctant to ask pregnant women about the emotional problems they might be experiencing because they lacked confidence in how they should respond.
Self assessment and interviews with midwives should provide further exploration of midwives perspectives on their communication skills behaviour and its impact on encounters with women.
Conclusion: Mental health problems in pregnancy have been identified as one of the leading causes of maternal morbidity and mortality in the United Kingdom. Women's repeated contact with midwives during pregnancy provides an excellent opportunity for detection and prevention, which is currently not being fully realized. Midwives need to develop good communication skills to facilitate disclosure of emotional problems in pregnant women and to offer appropriate care.

A Randomized Controlled Trial of Internet Based Cognitive Behavioural Therapy (CBT) Versus Treatment as Usual for Pregnant Women with High Levels of Depression at Queen Charlotte's Hospital

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Despite there has been a great improvement in the physical care of pregnant women and their babies in the last years, this same is not true of their psychological and psychiatric care in pregnancy. Prenatal stress and anxiety contribute 10–15 % in the variance of having a baby with a double risk for ADHD, conduct disorder, emotional problems and increased risk for cognitive delay. Over 80 % of pregnant women with such problems are currently undiagnosed and untreated. Recent NICE clinical guidelines recommend cognitive behavioral therapy (CBT) for the treatment of these disorders, since it has been shown to be effective. Internet Based CBT has proven to be cost-effective and can be offered online by a therapist that communicates in real time with the patient using typewritten responses and individual "Skype" conferences. Therefore we are carrying out a randomized controlled trial evaluating the efficacy of internet based CBT compared to treatment as usual, in depressed pregnant women. In this randomized controlled trial, 240 pregnant women (120 TAU, 120 IB) in the 20–22 gestational weeks with score >11 in the Edinburgh Postpartum Depression Scale (EPDS) and DSM-IV diagnosis criteria of a depressive episode, are invited to participate in London, UK. Participants are randomly assigned to online CBT or treatment as usual. Literature research on comparable studies, the design and preliminary results of this trial will be presented at the conference.

The Relationship Between Trauma, Adolescent Motherhood, and Perinatal Depression: Results from a Prospective Epidemiological Study

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Aims: Adolescent mothers suffer disproportionately from perinatal depression (PND). Childhood trauma and PND are linked to negative outcomes including low birth weight and poor mother-infant bonding. Existing literature includes primarily small, cross-sectional, isolated samples, and little examination of diverse trauma types. This prospective study examines the relationships between childhood trauma, trauma type, and PND in adolescent mothers.
Methods: A sample of 250 adolescents aged 14–20 years old was recruited during prenatal visits at a public health clinic. A survey assessing demographics, depression, trauma, stress, and social adjustment was administered prenatally and postpartum. Multivariate logistic

regression analyses examined the prevalence of PND and childhood trauma history, and trauma as a predictor of PND. Relationships between sexual abuse, physical abuse, interpersonal violence, emotional abuse and PND are explored and examined as individual risk factors.
Results: Nearly 82 % of subjects reported some form of childhood trauma, with 61.2 % reporting interpersonal violence (IPV), specifically. There was a high incidence of psychological abuse (41.30 %), followed by sexual abuse (10.34 %), and physical abuse (8.42 %). PND is significantly associated with trauma history (R=18.29; p< 0.00), and perceived stress (R=81.85; p<0.00) and social adjustment (R=87.30, p<0.00) and support (R=39.19; p<0.00). Trauma is significantly associated with social adjustment (R=164.77, p<0.01) and social support (R=164.77, p<0.05). In both significant multiple logistic regression models predicting antenatal and postpartum depression, trauma was a significant predictor. The strongest trauma predictor of PND was a history of IPV (R=101.13, p<0.00).
Conclusion: Trauma is a significant factor in adolescent PND, with IPV posing particular risk. Screening at multiple time points during pregnancy and postpartum may be important to fully identify those with PPD and obtain a clearer picture of the role of trauma in this problem. Results suggest brief trauma and IPV measures may help prenatally screen pregnant adolescents for PND risk factors. Given the high prevalence of trauma exposure in this population, it is recommended that any intervention for adolescent mothers include a trauma component.

Antenatal Mental Health Screening Downunder. An Australian First Within a Private Hospital Context

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The Australian National Clinical Practice Guidelines for depression and related disorders in the perinatal period recommend routine universal antenatal and postnatal screening. Currently antenatal mental health screening is occurring in many public hospital settings throughout the country.
In late 2010 the Gidget Foundation was successful in obtaining a grant from the nib foundation to provide universal routine mental health assessment to all pregnant women attending North Shore Private Hospital, Sydney. Known as the 'Emotional Wellbeing Program', the model developed is closely based on the recommended antenatal mental health screening program.
Perinatal mental health professionals have been engaged to provide ongoing program and clinical advice. Trained midwives are administering two screening tools, the EDS and a psychosocial assessment questionnaire. Pathways to care have been developed and an early career obstetrician is evaluating the program. A number of private hospitals around the country are watching with interest.
While the initial grant was to screen 2,000 pregnant women over a period of 1 year this time frame has been extended. Implementation of the program has been slow and challenging and has demanded creative thinking to work through issues, many of which were unforseen.
This narrative presentation will examine the factors required and the steps followed in order to establish a new screening program and critically evaluate the process. Personalities will be considered and personal insights will be examined in order to provide context to the clinical issues and legal compliance aspects that have been encountered.
Preliminary qualitative and quantitative data will be presented. The program and the early findings have raised some interesting questions and exposed some challenging problems. It is an example of an unusual and innovative collaboration between three separate organisations and a number of passionate individuals.

Systematic Review of Perinatal Depression Interventions for Teen Mothers

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Aims: Teenage pregnancy in the United States is widespread and increases the risk for depression. Rates of postpartum depression as high as 28–56 % have been documented in adolescent, low income, minority mothers—higher than the 10–15 % rates reported in adult mothers. Perinatal depression is associated with negative consequences for mothers and babies. These findings suggest a need to develop interventions aimed at preventing and treating adolescent perinatal depression. This paper evaluates the current literature on existing interventions.
Method: A literature search was conducted via the PsycInfo and PubMed electronic databases using keywords associated with adolescence, perinatal depression, and interventions. Inclusion criteria were: published within the past 15 years; adolescent population; research-based studies that tested the efficacy of treatment or preventive interventions targeting pregnant teens or teen mothers in improving depression (symptoms or clinical depression), as assessed with standardized measures.
Results: Seven articles that met the criteria were located (Barnet et al., 2007; Field et al., 1996; Field et al., 2000; Logsdon et al., 2005; Logsdon et al., 2009; Miller et al., 2008; Oswalt et al., 2009), sampling 25 pregnant teens and 442 teen mothers (12–18 years old, mostly low income African American and Hispanic). Four interventions were treatment-based, and three prevention-based. Two utilized a pre-post quasi-experimental design, and five were randomized controlled trials. Each treatment study was effective in reducing depression, including: a 12-week interpersonal group intervention; a multi-component treatment, with daycare, relaxation, massage, and mother-infant coaching; a maternal massage program; and a 6-month motivational interviewing phone-based intervention. Of the three prevention studies, a maternal infant massage program was effective in reducing depression incidence. No significant effects on depressive symptomatology were demonstrated in a home visiting-based intervention with parenting and adolescent curricula or in a one-time social support intervention.
Conclusions: Results from a systematic review of current interventions targeting adolescent perinatal depression indicated that there is a limited evidence base. Future research should build from efficacious adult interventions—incorporating knowledge of adolescent mothers' risk and protective factors, and develop effective interventions for teens, thereby promoting the health of this at-risk population.

The Last Year of Louis-Victor Marcé's Life

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The last year of Louis-Victor Marcé (1828–1864) was particularly busy.

It began in October 1863 with the presentation of "The Value of the Writings of Insane Persons" at the first French congress of medicine in Rouen and later before the Société Médico-Psychologique in Paris. This had not previously been examined and Marcé's paper is now regarded as "the birth certificate of the medical studies on this subject" (Philippe Artières, 1998).

In January 1864 his wife gave birth to their last son who, curiously, was nearly given his first name: Victor-Louis. In April 1864 Marcé presented before the Académie des Sciences a paper, read by Claude Bernard, on "The Toxic Effect of Abstinth Oil", which was the first to report on the toxicity of the beverage.

In April or May an exhausted Marcé spent a few days of rest at the Château de Chenonceau that his wealthy sister-in-law, Marguerite Wilson-Pelouze, had just bought. Unfortunately, he did not recover sufficiently and by the beginning of July was obliged to stop his duties as chief of a psychiatric department in the Bicêtre hospital and co-director of the maison de santé of Ivry.

We have already reported that Marcé was sent to a renowned maison de santé in Auteuil where he died on 24 August 1864 by cutting his throat with a razor (Lempérière, Luauté & Garrabé, 2010). Howewer, at the time we were unaware of the details of his mental condition. Thanks to the recent discovery of ten letters, written between 22 July and 23 August, by his father-in-law, the wealthy chemist Jules Pelouze, we can now assert that Marcé was treated - and badly treated - for an acute melancholic state. The even more recent discovery that his own father had been committed to the Bicêtre hospital (before being recruited as a warder) suggests that Marcé's melancholic state may be related to a bipolar II disorder, a condition that he was the first to mention in his "Treatise of Mental Illnesses" (1862).

The relationship between Marcé's pioneering role, his suspected illness and his tragic destiny will be discussed in this presentation.

Biobehavioral Regulation in Response to Stress among Infants of Mothers with Childhood Abuse, PTSD and Depression

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Aims: In young infants, the quality of caregiving modulates the development of the child's biological and affective stress regulatory system, including the functionality of the Hypothalamic-Pituitary-Adrenal (HPA) axis which governs reactivity to and recovery from stressful stimuli. Mothers suffering postpartum psychopathology are less sensitive when interacting with their infants than healthy controls, and infants of affected mothers display exaggerated cortisol and emotional reactivity to stress compared to infants of healthy mothers. Subsequently, research suggests that hyperactivity of the HPA stress axis early in development may have long-lasting adverse consequences to child development.

Methods: The MACY study assesses women with childhood trauma histories (n=97) and healthy controls (n=53) in their adjustment to motherhood across the peripartum period, as well as their infants' biological and socio-emotional development from infancy to preschool-age. For this presentation we will analyze data on infant cortisol reactivity and affective recovery following an interactive challenge task with the mother, and investigate associations of infant bio-behavioral response to quality of maternal interactive behaviors and maternal psychopathology. Infant salivary cortisol assays are collected at 7-months postpartum before (baseline) and after (20-, 40- and 60-minutes) the interactive challenge task. Maternal behavior during the structured interactive challenge is videotaped, and later coded by independent coders for positive parenting (Behavioral Sensitivity, Flexibility, Engagement, Affect Sensitivity, Positive Affect, Warmth). Maternal trauma and psychopathology is assessed using standard self-report measures.

Results: Using SEM we confirmed predicted associations between infant cortisol reactivity and affective recovery following the interactive challenge task and the quality of maternal interactive behaviors and psychopathology. Mothers with high levels of positive parenting behaviors had infants with lower cortisol reactivity (beta=−.46, p<.01) and more positive affect on recovery (beta=.39, p<.001). While maternal childhood trauma exposure predicted levels of postpartum depression (beta=.35) and post-traumatic stress disorder (beta=.61), only depression predicted maternal postpartum parenting behavior (beta=−.26 to positive parenting).

Conclusion: Findings from this longitudinal study support the notion that impaired maternal caregiving related to postpartum depression is associated with infant biobehavioral dysregulation, which, in turn, may be an early risk marker for later child psychopathology.

The Demographical, Social, Economical and Medical Context of Marcé's 'Treatise on Insanity in Pregnant, Postpartum, and Lactating Women' (1858)

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For the first time in the history of birth, Marcé provides extensive clinical descriptions of mental disorders among women, connected with pregnancy, postpartum and lactation. Through seventy-nine vivid case examples (cases that he personally evaluated and other reported cases), he gives an accurate account of the living conditions of french women from broad social and economic backgrounds around the middle of the XIXth century. Though France was the first country where birth control was efficient, many mothers were exhausted by work, pregnancies and breast-feeding. His sentence « Pregnancy is not a happy event for all women » is famous. The increasing number of illegitimate births and their stigmatization in large cities such as Paris is the background of the mental disorders explaining the rise of abortions and infanticides. The traditional etiological theory about these female disorders insisted on the predominant influence of the womb, according to the antique saying "tota mulier in utero". Being a free mind, Marcé is one of the first physicians to refute this tradition; instead, he finds the cause of insanity either in heredity or anemia. Thus the treatments he recommends are mainly based on wholesome food and iron remedies, instead of common panacea, such as blood-letting. About lactation, he also refutes the old theory about the damages of « brought-in milk » and recommends a quiet family circle around he young mother. Along with Georges Rocher en 1877 et Richard von Krafft-Ebing en 1886, Marcé was one of the most convincing advocates of the mitigated

responsibility of infanticide mothers, which inspires many sentences in law courts at the end of the XIXth century.

Serotonin Signalling Affects Glucocorticoid Receptor Gene Expression in the Human Foetal Hippocampus

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Aims: Maternal depression affects child development, and may predetermine an individual susceptibility to depression in adult life (Pawlby et al., 2011). Recent studies suggest that the intrauterine environment can be a specific biological setting in which maternal experiences can influence foetal brain development. One of the molecular mechanisms underlying this effect has been suggested by animal studies and involves serotonin signalling, which modulates glucocorticoid receptor (GR) expression via DNA methylation of the GR gene first alternative exons. In humans adverse early life experiences such as maternal depression have been shown to increase DNA methylation of the GR first alternative exon 1F and subsequently decrease GR expression. However, it has not been shown in human studies that serotonin signalling is involved in this effect.
Methods: A human foetal hippocampal neural progenitor cell line (HPC03A/07, ReNeuron, UK) was used as an in vitro model. Proliferating cells were treated for 24 and 72 h with serotonin 5HT1 and 5HT7 receptor agonist 5-carboxamidotryptamine (5-CT) and/or dexamethasone (DEX). At the end of the incubation time mRNA was extracted from the cells and changes in expression levels were measured by real-time quantitive PCR. Methylation of the GR gene 1F region was assessed by pyrosequencing.
Results: Treatment with 5-CT and DEX resulted in a 15 % and 24 % decrease in the GR expression respectively. This reduction can be attributed to a decrease in the expression of the GR associated with exon 1F, as 1F expression was reduced by 40 % upon DEX treatment, while addition of 5-CT showed a trend towards a reduction of DEX effect. Pyrosequencing assay showed that CpG sites within 1F exon of the GR are demethylated in hippocampal stem cells at baseline and in all treatment conditions.
Conclusions: This data suggests that activation of serotonin receptors affects GR expression in foetal hippocampal cells at baseline and upon DEX treatment, which models stressful conditions in vitro. Interestingly, observed changes in gene expression did not correlate with changes in the DNA methylation of the GR 1F region. These results suggest that demonstrated effects should be attributed to a distinct molecular pathway, which requires further investigation.

Mindfulness Yoga During Pregnancy for Women with Depression: Preliminary Results from a Pilot Feasibility Study

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Aims: Major depression (MDD) in pregnancy is a serious health concern, with a prevalence of 15–20 %. While antidepressant medications have been proven effective to treat antenatal depression, many pregnant women are reluctant to take these drugs due to concern for their infant's safety. When traditional treatments are rejected or feared, there is evidence to suggest that women may feel more comfortable with the options offered by complementary and alternative medicine (CAM), including herbal medicine, relaxation techniques, and mind-body work. Despite limited empirical research, CAM methods are becoming more popular among pregnant women, suggesting that pregnancy may be a time when CAM is more acceptable to the average women, possibly serving as a gateway to effective treatments for women who may have never considered CAM before becoming pregnant.
In this presentation we review evidence for one specific CAM approach (i.e. yoga) in the treatment of depression. Data from a feasibility and pilot efficacy trial utilizing a mindfulness yoga (M-Yoga) intervention for depressed pregnant women is then presented.
Methods: Eighteen primiparous pregnant women, ages ≥18, English-speakers, baseline EPDS≥9, free of medications and ≤26 weeks gestation participated in a 10-week M-Yoga group. In addition to a baseline diagnostic interview (SCID for DSM-IV-TR), women completed self-ratings on depression (BDI-II), mindfulness, and maternal-fetal attachment before and after M-Yoga. Paired t-tests were performed to detect change in depression, mindfulness and maternal-fetal attachment across trial period.
Results: There was a significant reduction in depressive symptoms from pre-to post M-Yoga, and women with moderate depression scores at baseline I showed greatest benefit. Mindfulness improved significantly over the intervention mainly driven by improvements on the Non-Judgment subscale. Finally, maternal-fetal attachment increased significantly across the intervention period.
Conclusion: This pilot study, while bearing limitations due to a small and homogeneous sample and lack of control group, is the first to demonstrate that M-Yoga may be an effective treatment alternative to medications for pregnant women with psychiatric history who suffer mild to moderate depression.

Mom Power: An Attachment-Based Parenting Intervention for Trauma-Exposed Mothers of Young Children

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Aims: Stressors that impact family functioning may disrupt the parent–child dyad, placing the child's early social-emotional development at risk. Research indicates attachment-based interventions may be particularly useful in decreasing negative outcomes in at-risk families. This study evaluated the effects of Mom Power (MP), a 10-week attachment-based group intervention that seeks to engage high-risk mothers and their young children and enhance mothers' mental health and parenting competence. MP is based on 5 key therapeutic "pillars": social support, parenting education, self-care practice, guided parent–child interactions, and connection with care.
Methods: Others (age 15 and older) with children aged 0–6 with several identified risk factors (trauma history, psychopathology, poverty, single parenthood) were recruited from an existing patient base at the University of Michigan and a local teen health center between 2009

and 2011 for a Phase 1 trial of feasibility, acceptability, and preliminary outcomes. A total of 119 mother-child pairs participated in a 10-week intervention program and completed both pre and post-intervention self-report measures on demographics, trauma history, maternal mental health (depression and PTSD), caregiving competence, and intervention satisfaction/perceived helpfulness.
Results: Preliminary results indicate that MP participation was associated with reduction in depression and PTSD, with effects most prominent for women with a history of interpersonal trauma. Women also improved on caregiving competence. The intervention was perceived as helpful and user-friendly.
Conclusion: The results suggest that MP is a promising treatment engagement program for high-risk dyads showing feasibility, acceptance and efficacy among mothers with multi-risk problems. Further research is warranted to evaluate the efficacy of MP using controlled designs.

Impact of Maternal Depressive Symptoms and Infant Temperament on Early Infant Growth and Motor Development: Results from a Population Based Study in Bangladesh

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Background: Evidence linking maternal depressive symptoms with infant's growth and development in low-income countries is inadequate and conflicting. This study investigated the independent effect of maternal perinatal depressive symptoms on infant's growth and motor development in rural Bangladesh.
Methods: A cohort of 720 pregnant women was followed from the third trimester of pregnancy to 6–8 months postpartum. For growth and developmental outcomes, 652 infants at 2–3 months and 6–8 months were assessed. Explanatory variables comprised maternal depressive symptoms, socioeconomic status, and infant's health and temperament. Outcome measures included infant's underweight, stunting and motor development. Multiple linear regression analyses identified predictors of infant growth and development.
Results: Maternal postpartum depressive symptoms independently predicted infant's underweight and impaired motor development, and antepartum depressive symptoms predicted infant's stunting. Infant's unadaptable temperament was inversely associated with infant's weight-for-age and motor development, and fussy and unpredictable temperament with height-for-age and motor development.
Conclusion: This study provides evidence that maternal ante- and postpartum depressive symptoms predict infant's growth and motor development in rural Bangladesh. It is recommended to integrate psychosocial components in maternal and child health interventions in order to counsel mothers with depressive symptoms.

Prenatal Serotonin Reuptake Inhibitor (SRI) Antidepressant Exposure and Serotonin Transporter Promoter Genotype (SLC6A4) Influence Executive Functions at 6 Years of Age

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Background: Prenatal exposure to serotonin reuptake inhibitor antidepressants (SRI) and maternal depression may shape prefrontal cognitive skills termed executive functions (EFs) central to attention, working memory and self-control.
Objective: This study examined longer-term effects of prenatal SRI exposure on EFs and to determine whether such associations are moderated by genetic variations in SLC6A4, a gene that codes for the serotonin transporter (5HTT) protein, central to the regulation of synaptic serotonin levels and behavior.
Design/Methods: Prenatally SRI-exposed (N=26) and non-exposed (N=38) children were studied at age 6.3 years (mean) using the Hearts and Flowers task to assess EFs (inhibition, working memory & flexibility). Maternal mood was obtained during the 3rd trimester and at 6 years [Hamilton Depression Scale]. Parent reports of child behavior were also obtained [MacArthur Health and Behavior Questionnaire (HBQ)].
Results: Using generalized linear modeling, with maternal mood at two times as covariates, children with prenatal SRI exposure were correct on more trials in all task blocks (p=0.009). SRI-exposed children whose mothers had high 3rd trimester depressive symptoms despite SRI treatment scored worse on the most demanding task block (block 3; p=.006). Within the prenatally SRI-exposed group, (a) children whose mothers were currently more depressed performed better (p=0.004), while (b) children with 2 long alleles erred more than other children (i.e. those with 1 short allele) (p=0.021). Parent reported fewer externalizing/ADHD symptoms in exposed children (p=0.01), after adjustment for maternal mood. In the non-exposed group, no differences in performance by allelic variation were evident.
Conclusions: Prenatal SRI exposure was associated with better EFs at 6 years of age, consistent with parent reports of fewer inattentive behaviors. With prenatal SRI exposure, prenatal maternal depression (3rd trimester) was associated with poorer EFs, while children of currently depressed mothers performed better, suggesting that timing of exposure to depressive symptoms influenced the direction of impact on EFs. Better cognitive control in those with reduced 5HTT expression (short allele) and prenatal SRI exposure may reflect fetal serotonergic programming, and an increased sensitivity to social and relational contexts.

Sleep Therapies for Pregnancy and Postpartum Depression

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Aims: To test the hypothesis that depressed women's (DW) mood during pregnancy or postpartum would improve more with late wake therapy (LWT) vs. early wake therapy (EWT) and correlate with endocrine measures.
Methods: 21 DW (7 pregnant, 14 postpartum) and 37 healthy women (HW)(24 pregnant, 13 postpartum), mean age 28 years, were randomized in a cross-over design to EWT (sleep 03:00–07:00 h) vs. LWT

(sleep 21:00–01:00 h) followed by a night of recovery sleep (RS-22:30–06:30 h). Mood ratings (Hamilton Depression Rating Scale-HDRS) were administered pre- and post-treatment (after RS). Plasma melatonin and serum cortisol, prolactin, and thyroid stimulating hormone (TSH) were drawn every 30 min from 18:00–10:00 h in dim light (<50 lux) and serum estradiol (E2) and progesterone (P4) at 18:00 and 06:00 h.

Results: HDRS scores were reduced by LWT in pregnant (p=.045) and postpartum (.016) DW, and by EWT in pregnant (.007) and postpartum (.022) DW. LWT improved HDRS scores by 56.2 %; EWT by 29.8 % in pregnant and postpartum DW, but the difference was not significant (ns). After LWT, change in HDRS correlated positively with change in melatonin peak and area under the curve in both pregnant and postpartum DW. After EWT, change in HDRS correlated negatively with change in melatonin offset time in pregnant DW; in postpartum DW, change in HDRS correlated negatively with melatonin peak concentration. After LWT, TSH mesor increased in postpartum HW; after EWT, cortisol amplitude and prolactin mesor decreased in postpartum HW. Mean E2 and P4 levels were not different between groups, but in postpartum DW, increased levels of E2 after LWT correlated with improved mood on the HDRS.

Conclusion: Both EWT and LWT reduced depressive symptoms as measured by the HDRS in pregnant and postpartum women. The difference between the treatments was ns. Some corrections to melatonin, cortisol, prolactin and TSH rhythms were observed, but there were insufficient data to indicate that these changes consistently correlated with mood measures other than the increased estradiol levels associated with improved mood after LWT in postpartum DW.

An Innovative Screen-and-Advice Model for Psychopathology and Psychosocial Problems in Urban Pregnant Women: Psychometric Properties and Pregnancy Outcomes

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Aim: Urban areas show increased adverse pregnancy outcomes related to psychiatric and psychosocial problems during pregnancy. Despite high prevalence of antenatal psychopathology and psychosocial problems and related adverse outcomes, so far no systematic comprehensive screen-and-advice model was available. We developed a Personal Digital Assistant (PDA)-based self-report screening model which screens for psychopathology, psychosocial risk factors and substance abuse. The PDA translates individual item responses into tailored intervention advices, such as a consultation of a psychiatrist or professional social support by trained nurses. We tested the model after adaptation to local care pathways.

Methods: Follow-up study among 3 unselected cohorts of pregnant women (n=621), who booked at Erasmus Medical Centre and 2 midwifery practices in Rotterdam. Women completed the PDA-tool while waiting. Suggested interventions (screen-output) were discussed subsequently. Psychometric and diagnostic performances of the model were established. Pregnancy outcomes were obtained postpartum, including maternal complications, preterm birth, SGA and mode of delivery.

Results: Response rate was 94 %. Internal reliability ranged 0.88–0.90, test-retest reliability ranged 0.64–1.00. Positive predictive value was 86 % and negative predictive value was 97 %. No interpractice psychometrical differences were observed. Migrant women received more often an intervention advice than native women (p<0.001).
Preliminary analyses of 382 cases showed an 83 g difference in birth weight in detriment of women with EPDS scores of 10 or more, compared to women with EPDS scores below 10 (not significant). Full analysis will be completed next month.

Conclusion: The feasibility of this integral model appeared good and psychometric properties of our screen-and-advice tool were favourable under routine conditions. The technical flexibility renders the model suitable for broader application. Local care pathways can easily be incorporated into the model. We suggest implementation in prenatal care in urbanized settings, to make tailored mental health care broadly available.

Postpartum Emotional Support: A Qualitative Study of Women's and Men's Anticipated Needs and Preferred Sources

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Aims: Australian national, state and territory policy emphasises measures to prevent, intervene early and improve pathways to treatment for perinatal mental disorders. Vital to achieving these aims are initiatives to increase the perinatal mental health capacity of primary health services and enhance public awareness of the emotional health needs of parents of infants. The aim of this study was to understand the perceived needs for support and information, and attitudes about the role of primary care for mental health, of men and women expecting their first child.

Methods: Nulliparous English speaking expectant parents attending Childbirth Education programs in public and private hospitals in metropolitan Melbourne and regional Victoria participated in single sex focus groups in late pregnancy. Group discussions were audiorecorded, transcribed and subjected to thematic analysis, using the group as the unit of analysis.

Results: 38 participants (22 women and 16 men) from diverse socioeconomic backgrounds attended one of 8 group discussions or individual interviews. Men and women identified a range of anticipated adjustments in the postnatal period including fatiguie, isolation, loss of leisure, independence and autonomy, and changes to the partner relationship. The internet, family, friends, printed materials and health professionals were regarded as important sources of information, but concerns were raised about the fragmented and inconsistent quality of available resources. There were diverse and gendered views about whether primary care health providers are appropriate sources of information and support for mental health, and in participants' willingness to complete screening questionnaires in health care settings about emotional needs and mental health symptoms. Differences in priorities amongst men and women were noted and will be discussed.

Conclusion: Expectant parents readily identify their anticipated postnatal needs for information, skills and practical and emotional support. However, primary care health providers are not universally regarded as appropriate sources of mental health care. Comprehensive, consistent, reliable resources for mothers and fathers of first newborns, services

sensitive to men's preferences and greater public awareness of the importance of mental health care in primary care services are required.

Perinatal Pathways: Psychosocial Risk, Help Seeking Behavior and Service Utilisation

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Aim: The aim of this paper was to report on the relationship between psychosocial risk factors (identified in pregnancy), women's help seeking behaviour and their subsequent utilisation and engagement in health services for mental health before and after birth.
Method: Data was collected using a structured survey at four time points (4 weeks after the antenatal booking visit, at 36 weeks pregnant, and 6 weeks, and 6 months postnatal). Qualitative data were collected from one third of the sample through semi-structured interviews at 6 weeks after birth.
Results: 105 women consented to participate in this study (m age= 29.94, SD=5.21). Fifty eight women were born outside Australia (including 25 from non-English speaking countries) and it was the first pregnancy for 46 women (44 %). Of the 86 women retained at 36 weeks gestation, 13 were highly anxious (HADS≥11), 9 had numerous depressive symptoms (EDS≥13), and 33 were considered 'at risk' according to the Antenatal Risk Questionnaire (ANRQ). Significant positive zero-order correlations were observed between these indices of antenatal mental health. In relation to help seeking for emotional issues, 62 % reported that they would seek help from a friend or family member, while only 23 % would seek professional assistance.
At 6 weeks postnatal, higher ANRQ was significantly associated with higher scores on the Postnatal Risk Questionnaire (PNRQ) (r=.604, p <.001) and a more negative experience of being a mother (r=.369, p =.003). For women at risk, personal confidence was positively correlated with the tendency to seek help from personal contacts (r=.255, p=.019). Additionally, antenatal EDS (r=.377, p=.031), antenatal HADS (r=.511, p=.002) and the tendency to seek professional help (r=.399, p=.021) were positively related to use of antenatal mental health services amongst at risk women.
Conclusion: Previous research indicates that many women with probable perinatal depression and anxiety do not seek help from professionals. This study suggests that women identified with risk but who have a higher level of personal confidence are more likely to use personal networks for support. This suggests the need to consider peer support models in conjunction with professional support and services.

Listening Visits on the Neonatal Intensive Care Unit

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Aims: Although 19 % of women experience significant postpartum depressive symptoms(1), the prevalence is even higher among mothers of infants hospitalized on the neonatal intensive care unit (NICU): 30 % to 65 % (2–5). Because these mothers spend much of their time in the NICU, obtaining depression treatment is especially difficult and often becomes a secondary priority. Thus NICU mothers are a vulnerable and underserved group. Listening Visits (LV), an evidence based nurse-delivered depression treatment (6–9), could provide NICU mothers with an effective and accessible treatment option. The purpose of this open trial was to assess the feasibility of implementing LV in the NICU setting and obtain preliminary data on its effectiveness and acceptability.
Methods: Women with elevated depression symptoms scores (> 11 on the Edinburgh Postnatal Depression Scale), were recruited to participate in a treatment trial. Each participant received six, 45-minute LV sessions from a neonatal nurse practitioner (NNP). Women completed assessments at enrollment (pre-LV), 1 month (post-LV), and 2 months (follow-up). Assessment included evaluations of depressive and anxiety symptoms, quality of life, adjustment, and treatment satisfaction. To date, 18 women have enrolled. We expect to complete data collection in March, 2012 with a total of at least 20 participants.
Results: The results are promising. Implementing LV on the NICU proved feasible. Current results also indicate that from both "pre- to post-LV" and "pre-LV to follow-up" there were significant reductions in depressive and anxiety symptoms and significant improvements in quality of life ratings. The appeal of LV is also high. Among eligible women, 80 % agreed to have LV. The average score on the Client Satisfaction Scale (CSQ) was 29.66 (SD=2.38); the highest possible CSQ score is 32. On the Views of LV Questionnaire, the LV recipients unanimously report positive views of the NNP's helping skills.
Conclusion: LV delivered by an NNP appear to be an effective and acceptable treatment option for NICU mothers with depressive symptoms. Incorporating LV by nurses on the NICU has the potential to circumvent the numerous depression treatment barriers in a group of vulnerable women and ensure that treatment is received early on in the mother-infant relationship.

Associations Between Postpartum Depression and Circadian Rhythms: Preliminary Report

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Introduction: Circadian rhythm disruption has been associated with depressed mood in non-perinatal adults. Our aim was to measure circadian rhythms during pregnancy and the postpartum period and to investigate whether circadian phase is related to postpartum depressive symptoms.
Methods: As part of an ongoing study, we measured circadian phase using dim light salivary melatonin onset (DLMO) at approximately 33 weeks gestation (3rdT) and 6 weeks postpartum (6wksPP) in 11 women (mean age (SD)=28.8 (5.0) years) with a history of major depression or bipolar disorder (but not in a mood episode during 3rdT). Participants kept sleep diaries for 1 week before DLMO assessment to record bedtimes and wake times. Saliva was collected every 30 min from ~2.5 h before the predicted DLMO to ~3 h after predicted DLMO. Light-induced melatonin suppression was avoided by wearing dark welders glasses during saliva collection. Samples were later assayed for melatonin (Alpco, Salem, NH). DLMO time was computed by linear interpolation between the times of the saliva samples before and

after melatonin levels reached threshold. Phase shifts were calculated by subtracting the 6wksPP DLMO from the 3rdT DLMO. Depressive symptoms were measured with the Inventory of Depressive Symptomotology-Self Report (IDS-SR).
Results: Average wake time (SD) delayed significantly from 07:43 (93 min) at 3rdT to 08:20 (78 min) at 6wksPP (t=−2.31, df=10, p=.043). Neither average bedtime (3rdT: 23:36 (71 min), 6wksPP: 23:48 (90 min)) nor average DLMO time (3rd T: 21:56 (83 min), 6 weeks: 22:02 (91 min)) differed from 3rdT to 6wksPP. Circadian phase shifts ranged from a 121 min phase advance to a 133 min phase delay. Later DLMO at 3rdT was associated with higher IDS score at 6wksPP (r=.626, p=.039).
Conclusions: We observed individual differences in magnitude and direction of circadian phase shifts across the perinatal period. Later circadian phase during 3rdT was associated with more depressive symptoms at 6 weeks postpartum. Perinatal circadian rhythms may contribute to the development of postpartum depression.

The Survivor Moms Companion: Assessing the Effect on Posttraumatic Stress During Pregnancy

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Aims: Childhood maltreatment and previous traumatic reproductive experience are risk factors for active PTSD in pregnancy, which has adverse consequences for women's experience of pregnancy, labour, postpartum mood and mother-infant attachment. Up to 8 % of nulliparous women meet full diagnostic criteria for PTSD. The "Survivor Moms' Companion" (SMC) is a fully manualised, 10-module, self-study and structured listening psycho-educational program for PTSD in pregnancy, implemented by non-psychiatric health professional "tutors", which is safe and acceptable. A pilot study showed that completion was associated with gains in PTSD symptom management, interpersonal regulation, and affect regulation including anger management but not low mood. The aim of this quasi-experimental extension of the pilot was to assess the effect size of the SMC's influence on postpartum outcomes.
Methods: Participants were women aged 18 years or older, less than 28 weeks pregnant, with a history of child abuse or sexual assault, and not engaged in long-term psychotherapy. They participated in the intervention, structured research telephone interviews at enrollment and 6 weeks postpartum. Labor experience, postpartum symptoms of depression and PTSD, and mother-infant bonding were assessed with standardized measures and compared with those collected from a cohort of pregnant women matched in a 1:3 ratio on socioeconomic and lifetime PTSD status who did not receive the intervention.
Results: Complete data were available for 64 women (n=42 comparison; n=22 SMC intervention). Despite worse psychiatric status at baseline, including significantly greater trauma history, prior therapy and medication use, pregnancy tobacco and alcohol use, dissociative symptoms and interpersonal difficulties, the intervention group had better scores on 6 outcome variables, with small to medium effect sizes: experience of labor (Cohen's d=0.52), dissociation during labor (d=0.48), perception of care in labor (d=0.43), postpartum mother-infant bonding (d=0.35) postpartum PTSD symptoms (d=0.33) and postpartum depression symptoms (d=0.24).
Conclusion: The results indicate that the SMC has the potential to assist these vulnerable women to manage pregnancy, labor and adjustment to motherhood successfully. It may be advisable to combine the SMC with evidence-based programs for prenatal depression. Effect sizes will inform the protocol for a cluster randomized trial to assess the efficacy of the SMC.

A Qualitative Study of the Response of Services to Domestic Violence Reported by Parents with Severe Mental Illness

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Aims: a) To investigate severely mentally ill mothers' experiences of domestic violence in the perinatal period, experiences of disclosing domestic violence victimisation and the response received from mental health services; b) To investigate mental health professionals' experiences of enquiring about and responding to domestic violence.
Method: Semi-structured interviews were carried out with a purposive sample of 24 mental health service users and 25 professionals recruited from UK community mental health teams and local voluntary sector groups. All interviews were audio-taped and transcribed verbatim. Interviews were analysed using a thematic analysis and a constant comparative approach. An initial coding frame was developed by the two raters based on simultaneous coding of transcripts. NVivo 7 was used for indexing material and for retrieval of text chunks pertaining to the same or similar codes. The appropriateness of the coding frame was checked through progressive iterations and reapplied to earlier transcripts as it developed.
Results: Findings are drawn from interviews with 25 mental health professionals and the 12 mental health service users who were parents. Abuse experienced included severe physical abuse resulting in premature labour and miscarriage. Service users' fears about children and families social services involvement and subsequent disruption to family life were key barriers to disclosure of domestic violence victimisation. Service users described their experiences of child custody proceedings and beliefs that their mental illness influenced services' decisions regarding their parenting capabilities. Professionals cited a lack of confidence and expertise about domestic violence as a key barrier to enquiring about abuse and described their experiences of initiating child protection plans and making referrals to Social Services in response to disclosures.
Conclusions: Parents with severe mental illness may be inhibited from disclosing domestic violence victimisation because of concerns about the consequences of such a disclosure for their families. Professionals can facilitate disclosure and access to services by helping service users work with social services to protect their children from the violent parent.

Frequency and Characteristics of Neonaticides in France

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Objectives: Measure the frequency of neonaticides (homicides in the first 24 h of life) and analyse the mechanisms behind its underestimation; identify characteristics of families (and of neonaticidal mothers).
Methods: A retrospective study was carried out in 26 courts in 3 French regions, comprising 34.6 % of births in France. Included were all cases submitted to courts by the State prosecutor of infants dying on their day of birth during a five-year period (1996–2000). Court case data cover years 1996–2008. WHO-ICD cause of death codes assigned in the mortality statistics were compared to causes assigned by the courts. Analysis was carried out on psychiatric assessments of mothers and testimony by witnesses (spouses, family, colleagues…).
Results: 27 cases of neonaticides were analysed. 17 mothers were identified. Like population based studies in other countries [1, 2], we observed underestimation of neonaticides in official mortality statistics (0.39 per 100,000 births vs 2.1 in our study) [3]. Mothers' median age was 26 years; 1/3 had at least three children. More than half lived with the child's father. Two-thirds were employed and their occupations did not differ significantly from women in the general population. No woman used effective contraception. Expert psychiatric assessments demonstrated the rarity of frank mental illness, as observed by Resnick [4], but identified a particular psycho-social profile, associating immaturity, dependency, weak self-esteem, absence of affective support, psychological isolation and poor communication with partners.
Conclusion: In France, judicial sources enable the estimation of the frequency of neonaticides and an analysis of their context.

Chronic and Acute Physical Illness in the Child: Effect of Maternal Stress and Depression During Pregnancy

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Background: Stress during pregnancy has been shown to be associated with negative outcomes in the children of affected mothers, particularly in measures of cognitive, emotional and behavioural functioning. The impact of stress and depression during pregnancy on the offspring's physical health has been less well researched. The aim of the present study was to extend previous research by examining indicators of physical health in a prospective cohort of children whose mothers were assessed for experience of stressful life events and depression during pregnancy. Methods: Stressful life events and depression were assessed in a community sample of 151 pregnant women recruited from two general practices in South London. Information on physical illness in the offspring was obtained through interviews with the mothers when the child was 4 years old.
Results: Children of mothers who experienced more than one stressful life event during pregnancy had a significantly higher risk of suffering from a chronic (p=0.002) or acute medical condition (p=0.025), an effect that was particularly strong for events assessed early in pregnancy. The effects of life events on chronic illness were most pronounced in respiratory conditions, where children from stressed mothers had a 25 % higher risk of having such a condition. Stressful life events experienced after pregnancy did not have any effects on health indicators. The findings remained significant after a number of confounding variables were taken into account, however, some of the results were reduced to non-significance when antenatal depression was included in the analysis.
Conclusion: These results suggests that there is stress during pregnancy has a negative impact on the physical health of affected offspring, which is partially mediated through the occurrence of antenatal depression.

Prospective Population-Based Study on Denial of Pregnancy in Berlin: Data on Maternal Parameters and Fetal Outcome Risk and Epidemiology Results

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Aims: Over the one-year period July 1, 1995, to June 30, 1996, prospective case sampling was performed for denied pregnancies at all obstetrical clinics in Berlin.
Methods: Women were recruited who were not aware of being pregnant and did not have a doctor's diagnosis of pregnancy during the first 20 weeks or more of gestation. The women were interviewed. Maternal parameters and neonatal outcome data were evaluated, and frequency ratios were calculated.
Results: 65 women were recruited. Age was between 15 and 44 years (median 27 years). Only 21 women had never been pregnant before, and 54 had a close partner. 69 neonates occurred (incl. 4 pairs of twins). Statistically worse outcome is demonstrated compared with all deliveries for gestational age below 37 weeks, birth weight below 2,500 g, small for gestational age, transferral rate of newborns to neonatal unit, and surgical delivery. Neonatal mortality was high. Additionally, one case of neonaticide occurred. Overall, 1 in 475 pregnancies was denied. The ratio was 1 in 2,455 for totally unexpected births (intrapartal diagnosis of the pregnancy).
Conclusions: Socio-demographic maternal parameters are insufficient for the identification of the majority of women with pregnancy denial, and a clear-cut typology of a "pregnancy-denier" could not be established. The widely-held belief that women denying pregnancy are of low intelligence, naive or retarded, immature-infantile, inexperienced in terms of sexuality, mostly socially not integrated, or young has to be corrected.
The newborn results underline the elevated fetal outcome risk after pregnancy denial.
The frequencies of denied pregnancy are representative for the metropolitan area of Berlin. Ratios from the few other epidemiologically-relevant studies show surprisingly similar patterns despite rather major differences in local socio-demographic characteristics. Frequency calculations has been projected for Germany as a whole and comparison with French numbers provided.

Synthesis: Bright Morning Light Therapy for Antenatal Depression

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Aim: Light therapy (LT) is a low-risk intervention delivered with inexpensive, commercially available boxes. LT is effective for both

seasonal affective disorder (SAD) and nonseasonal major depressive disorder (MDD). Our team has conducted several studies of LT for antenatal nonseasonal depression, which will be synthesized to inform recommendations.

Method: In the first study, we expected rapid improvement (as occurs in SAD) and planned for a 3 week duration. In this single-blind case series, pregnant women with MDD (N=16) were treated with 10,000 lux LT for 60 min. After observing only moderate responses in the first 9 patients, we increased to 5 weeks. The second study was a small RCT in which women were randomized to either bright (7,000 lux, N=5) or dim (500 lux, N=5) white LT. Third, we conducted a pilot double blind RCT in which women were randomized (N=46) 1:1 to 7,000 lux white or 70 lux red light in the AM for 60 min per day for 5 weeks.

Results: In the first study, 8 of 16 subjects responded after 3 weeks; after 5 weeks, 4 of 7 subjects remitted. For the second, the bright LT group had a 10-point depression score reduction, while the dim LT group improved by only 5 points (nonsignificant, underpowered). One woman developed hypomania at Week 4. In the final RCT, of 70 eligible women, 46 were randomized and 34 completed the trial. Categorical analysis for the HAMD revealed that both response (≥50 % improvement) and remission (final score ≤7) rates were significantly greater for white than red LT (81.3 % vs. 45.5 %, respectively, p=0.027). The trajectory of score decline remained steep at week 5, which suggests that additional treatment would continue to improve the scores.

Conclusions: The synthesis supports the following conclusions: Antenatal MDD requires an acute phase duration of 6 weeks (similar to drug trials). The efficacious dose is 60 min LT in the AM; however, the range of potentially effective doses has not been studied. Side effects are rare and the most common in our series was nausea. As with any treatment for MDD, hypomania is a potential outcome.

3-Short Presentations

Strong Beginnings

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Aims: The aims of this talk are to take the audience on a journey of setting up the first perinatal and infant service targeted to an Aboriginal population of Australia, and increase understanding of the health challenges facing many Aboriginal Australians.

Methods: The context of the challenges facing many Aboriginal Australians in terms of the history of European invasion, discrimination, dislocation and ongoing racism need to be understood before working in this setting. Concepts of health, in terms not just of absence of disease, but in terms of social and emotional wellbeing as well as ties to the community, culture and environment are important in our work.

There are many challenges as rates of intergenerational morbidity and socioeconomic disadvantage are high.

Having a baby can be a difficult time, surfacing many old hurts and intergenerational traumas. On the other hand, an infant is also a sign of hope and new beginnings. The prenatal period and early infancy provide powerful opportunities for growth and change.

Clinical perspectives of starting up the clinic and clinical challenges in this setting will be described. Service issues such as cultural safety, acceptability of services and barriers to attending services are challenges that may be faced by many who are providing services to minority and disadvantaged populations.

Results and Conclusions: Small beginnings are important. By being respectful, willing to learn and being clinically relevant, this clinic hopes to "evolve" in response to community needs.

Early support through a perinatal and infant mental health clinic may help to address aspects of parental and infant vulnerability and the early developing child-caregiver relationship.

Follow-Up Study of Very Premature Children (Cohorte EPIPAGE 2)

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Introduction: In France, each year, almost 13 000 (1 %) babies are born before 32 weeks of gestation. The number of neonates surviving preterm or very preterm birth has increased because of progress in therapy and quality of care and children born at low gestational ages face a range of risks. We present the EPIPAGE 2 study, a national cohort of very and moderately preterm children in France.

Methods: EPIPAGE 2 is a prospective population-based cohort study conducted in 25 regions of France in 2011 including extremely (22–26 weeks, 8-month recruitment), very (27–31 weeks, 6-month recruitment) and moderately preterm (32–34 weeks, 1-month recruitment) children. A total of 5,105 live births were included in the EPIPAGE 2 study: 1,033 were born extremely preterm, 2,883 very preterm, and 1,189 moderately preterm. It aims to examine short and long term outcomes (survival, health and development) of these children and their determinants. Data on pregnancy, delivery, and neonatal events were extracted from the obstetric and neonatal records. The follow-up will collect information at a corrected age of 1 year and at 2, 5, 8 and 11–12 years of age.

Associated projects

Several projects based on subsamples of very preterm children included in the EPIPAGE 2 cohort will be conducted to investigate: 1) attitudes of care for extremely preterm infants; 2) impact of neonatal nutrition on child development; 3) neonatal MRI cerebral abnormalities and their relation to executive functions; 4) associations between early gut colonization and early and late onset diseases; 5) mother-infant attachment; 6) early biomarkers of child health; 7) painful procedures in neonatal intensive care units, and 8) diagnosis of histologic chorioamnionitis.

Discussion: This project seeks to provide new data on the prognosis and etiology of very preterm birth and to assess related medical practices. Accordingly, it should lead to the development of new strategies of management and prevention in high-risk babies.

Prevalence of Depressive Disorders and Comorbid Mental Disorders among Reproductive Age Women in Erzurum (Eastern Turkey)

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Objective: Comorbid mental disorders increase severity of depressive disorders and disability in reproductive age women who are already at risk of postpartum depression. Poor physical and mental health of mothers' negatively affects children's health, nutrition, and psychological well-being. The aim of the study was determining prevalance of depressive disorders and comorbid mental disorders in reproductive age women.
Method: The study included 589 women between 15 years old and 49 years old from the region of 32 family practitioners selected randomly with 30 cluster sample method among 113 family physicians in the provincial centre. The inclusion criterias was not being pregnant or at menopause, not childbearing within last 1 year and not having any mental disorder that might prevent answering questions. We used General Health Questionnaire-28 and Edinburgh Postpartum Depression Scale as screening tests and socio-demographic data form. The Structured Clinical Interview for DSM-IV (SCID-I) were used to determine comorbid mental disorders. SPSS 11.0 program was used for statistical analysis.
Results: Thirty-two point eight of the women had Depressive Disorders. Rate of any mental disorder comorbid with depressive disorders was 49 %. Thirty seven point five of the women with depressive disorders had only a single diagnosis, 10.9 % of them 2 and 0.5 % had 3 diagnosis. The most frequently identified comorbid conditons were phobic disorders (36.5 %), OCD (15.1 %), panic disorder (6.2 %) and general anxiety disorder (2.1 %) and the others.
Conclusion: These findings suggest that depressive disorders and other mental diseases are high rates in women of reproductive age. There are few studies comorbid Axis I disorders with major depressive disorder in Turkey and no studies including all depressive disorders and reproductive age women. Age and hormonal effects make women vulnerable to mental illness. Presence of comorbid mental disorders with depressive disorders may affect in the reproductive age women who are already at risk of postpartum depression and could increase disability and could affect prognose. There are need to better identification of comorbid mental disorders with depression in this population. Treatment of comorbid mental disorders for reducing disability and determination of the treatment should also be considered.

The Paradox of Screening for Postnatal Depression in a Rural Community

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Aims: There is international debate about the efficacy of screening for postnatal depression in routine clinical care. This study aims to evaluate the effectiveness of a ten year screening program in a rural community in Australia and to identify barriers and facilitators to the identification and care of affected women.
Methods: Qualitative and quantitative analyses were applied within three phases of research including two complete audits of screening records, interviews of screening nurses and doctors receiving referrals. 62 % of all screened women responded to a postal survey and a purposive sample was used to select women for in-depth interviewing.
Results: Nurses believed they were following the screening protocol, however only 15.5 % of women were screened per protocol and 22 % never screened. The number of women identified as probably depressed was half that expected. Nurses regarded screening important to their work but doctors gave little account to screening, preferring clinical assessment. Treatments included antidepressant medication, referral to local psychologists and counsellors. Mental health services were universally described as difficult to access. Women's responses to screening were diverse with some indicating that screening was helpful whilst others were deeply mistrustful of the process. In-depth interviews revealed that women made conscious choices about how they responded to the screening process and whether or not to disclose their actual feelings.
Conclusion: A well established program of universal screening for postnatal depression did not meet its objectives with only half the expected numbers of potentially depressed women being detected.
Understanding and acceptance of the program amongst stakeholders was variable implying likely breakdown in referral pathways. Women often made conscious choices as to how to respond largely based on their trust in the process and the person administering the screening. The factors identified will need to be properly addressed in any broader program of screening for PND for goals to be achieved.

Association Maman Blues: Parental Aid Relationship in the Cyberspace

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The purpose of this lecture is to show how a virtual group may, on the Internet during the perinatal period, contribute to take care of mothers in psychological difficulties. We will focus in the first part of this paper on the Association Maman Blues, a parental French association dealing exclusively with this healthcare problem and particularly on its internet forum:www.maman-blues.fr. We will evoke, on the one hand, the history, the philosophy and the objectives of the Association. On the other hand, we will touch on the functioning of this discussion forum and its internal dynamics. We will also talk about the mothers who may be concerned by this web site. In the second part we will discuss the particularities of the virtual aid relationship. Extracts from the forum will show that the virtual group can welcome the maternal sufferings and take care of the mothers. Illustrations of the possibilities of the Maman Blues group to operate changes in the psychological states of the e-mothers would be:the possibility to talk about themselves and develop their experience through writing, shared experiences of similar psychological difficulties, opportunities of identifications with mothers "like them", the feeling that they are not alone and that their sufferings are fully understood. The perinatal period during which discussions are held seems to give more impact to the relationship of web support. Indeed, in this moment of their lives mothers have greater sensitivity and they better accept the support they can get, especially from their peers. It is also a time for prevention:the suffering of mothers are recognized, allowing a mobilization around them, often with the establishment of a professionnal counseling in private practice or health establishment. The relationships between Internet users have a significant impact when mothers seeking help demonstrate a good insight capacity, a real desire for change and enough mental flexibility. The limits of the virtual aid relationship, however, are obvious when mothers suffer psychiatric and/or personnality disorders previous to their perinatal pathology.

Perceptions of Breastfeeding Success in Depressed and Non-Depressed Mothers: Implications for Evidence-Based Practices

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Aims: In new mothers, only 14 % achieve the recommended 6 months of exclusive breastfeeding and 15 % develop postpartum depression (PPD). Studies have linked breastfeeding difficulty with PPD, but the literature provides little on women's perceptions/experiences. This study aimed to understand women's postpartum experiences related to mood and breastfeeding and to elucidate the connection between lactation failure and PPD.
Methods: For this mixed-methods study, we recruited a purposive sample of 20 women (10 with antenatal depression and 10 without) from the convenience sample of 50 women with intent to breastfeed recruited for a larger study examining neuroendocrine pathophysiology. In-depth interviews were completed postpartum (10–12 weeks), including quantitative data on mood, support, stress, and breastfeeding self-efficacy and qualitative data on perceptions of breastfeeding, PPD, stress, support, and resources. Interviews were digitally recorded and transcribed verbatim. Transcripts were checked for accuracy. Data was managed using NVivo7. Qualitative data analysis followed a predetermined and emergent theme iterative approach. Intercoder reliability checks were regularly conducted. Patterns and themes were derived through consensus. Analysts reviewed transcripts for contradictory findings and data triangulation. Multiple coders increased reliability and validity.
Results: Several prominent themes emerged. Antenatal breastfeeding expectations were closely tied to expectations postpartum. Mothers with a prior pregnancy and/or realistic information about breastfeeding reported more positive breastfeeding emotions. Primiparous women who received little and/or unrealistic information reported more negative breastfeeding emotions. Adequate social support was associated with increased confidence in breastfeeding, parenting, and navigating difficulties. Help-seeking and social support were associated with perceptions of breastfeeding success. Women sought help with difficulties, but many felt shame if breastfeed did not happen easily. Many wanted more accurate information antenatally about potential problems that might arise postpartum. Mothers felt breastfeeding support groups could address many challenges including technical difficulties, appropriate expectations, and support. Mothers with PPD appeared less resilient in coping with breastfeeding challenges.
Conclusions: Mothers readily perceived a need for realistic information and support for breastfeeding. Mothers with PPD experienced more difficulty with breastfeeding. Implementation of breastfeeding support groups could help address expectations, provide normalizing experiences, accurate information, and enhance social support, thereby facilitating postpartum experiences for new mothers.

Grandparents: What if their Children Who Suffer from a Mental Illness have Children of their Own?

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Their role of the prandparents is not an easy one, though they have no parental authority, they feel that their children need help to be as good parents as possible for their children
They want to get involved but their children now parents, grand children's parents may refuse or may feel they are too intrusive or that they—as parents- are disqualified;
When their help is accepted, grandparents must be very careful to act and stay within limits, which are :we are not our grandchildren's parents and never will, we must not add confusion to the confusion of the illness—each generation must stay in its place –, it will not be an easy task to adapt to the ups and downs of our children, to the unpredictability of their mental illness-, the burden may be so heavy to bear that we have to seek for help for themselves.
Some associations offer self-help group: They debate for example about their rights as grandparents to see their grandchildren, about problems that occur when in mixed couples the two families have different social and cultural background which lead to conflicts. Or, what to say to a child who ask question about his mother's or father's strange behaviour, about his and her illness or about what he sees without understanding it.
Grandparents and parents should be helped before the birth. A psychotic mother-to-be may find it difficult to realize she is pregnant, she may fear or reject the need of a pedopsychiatrist after the birth.
It would be a good idea that everybody should feel involved: the psychiatrist, the midwives and the grandparents and parents-to-be, who may detect the symptoms of a relapse during pregnancy.
Later, grandparents could join a self-help group and meet people who share their concerns, or ask for a therapy for the whole family where everyone can have their say, or go to a place like "la maison verte" where babies, parents, grandparents can find a professional able to listen to their fears, hopes, emotions.

Triple Jeopardy: Homelessness, Mental Illness and Motherhood

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Aims: Homeless new mothers with mental illness present a management challenge for perinatal psychiatrists. The aim of this paper is to review the relevant clinical, psychosocial and child protection issues associated in their management.
Methods: A review of the literature on homelessness, social disadvantage and new motherhood will be provided. Case material on women admitted to an NGO residential facility for homeless new mothers with mental illness will be reviewed and presented.
Results: Some of the women required a comprehensive psychiatric review to clarify the diagnosis, especially for women with personality

disorder who had attracted a diagnosis of bipolar disorder and were being treated with unnecessary medications.
Homeless women were infrequently provided with psychological treatments and were either inappropriately or overmedicated.
Psycho-education was necessary for all of the women to provide them with information about their illness and how it can be best managed along with lifestyle management.
While engagement with child protection services was necessary it was often difficult and unpredictable and dependant of local office culture with the removal of children being an ongoing threat.
Conclusions: Homeless new mothers with a mental illness provide a specific challenge for perinatal psychiatrists involving a comprehensive bio-psychosocial approach to their management.
Diagnostic clarification is necessary and the judicious use of medication is required. This needs to be coupled with psychoeducation along with training in parenting skills.
A more transparent interaction with child protection agencies, with clear guidelines as to what child protection issues need to be addressed is required.

Child Mental Health Problems at Three and Five Years: Impact of Maternal Personality Disorder and Perinatal Depression

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Aims: To examine the independent effects of maternal perinatal depression and personality disorder on child mental health problems at 3 and 5 years of age.
Methods: In a prospective longitudinal study, the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) was completed by mothers when their children were aged three (n=166) and five (n=141) and by the child's teacher at age five (n=130). Maternal clinical diagnostic assessments of current and past episodes of depression were conducted at 2 months, 18 months, 3 years and 5 years postpartum and maternal personality disorder was assessed at two months postpartum. SDQ total difficulties scores were examined in relation to the presence of maternal personality disorder and the timing of maternal depression diagnosis, controlling for child gender.
Results: Multivariate analyses showed that higher parent-reported total difficulties scores at 3 years were predicted by diagnosis of postpartum depression (F=3.68, p<0.05), personality disorder (F=3.45, p<0.05) and by current maternal depression (F=7.23, p<0.01). At age five, higher parent-reported total difficulties scores were predicted by diagnosis of personality disorder (F=3.58, p<0.05) and current maternal depression (F=6.54, p<0.01). However, higher teacher-reported total difficulties scores at age five were predicted by postpartum depression (F=3.85, p<0.05) and lower scores were predicted by personality disorder (F=5.00, p<0.05). A statistical interaction (F=3.48, p<0.05) indicated that children had lower scores when the mother had both postpartum depression and personality disorder and higher scores when the mother had only depression, while for the children of mothers without postpartum depression, maternal personality disorder had no effect. Similar results were obtained when the effects of the three personality disorder clusters were examined separately.
Conclusion: Maternal personality disorder may, in some circumstances, act as a protective factor for children of mothers with postpartum depression and should be taken into account when assessing potential effects of maternal depression on infant and child development. Implications of this finding will be discussed.

Postpartum Depression and Maternal Attachment Beyond Two Years: The Role of Maternal Self-Efficacy

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Aims: Although postpartum depression (PPD) negatively affects the quality of mother-infant attachment, little is known about the long term effects of depression on maternal attachment quality. This longitudinal follow-up study examined relationships between previous distress at childbirth, current depressive symptomatology, maternal self efficacy, and effects upon maternal attachment quality.
Methods: Fifty-four women who had been screened for childbirth distress 2 years prior, agreed to participate in a telephone interview. Of these women 68.5 % were previously classified as distressed and the remainder were non-distressed. Women completed the Edinburgh Postnatal Depression Scale (EPDS), Maternal Postnatal Attachment Scale (MPAS) and Parental Sense of Competency Scale (PSCS). Their infants' mean age was 28.9 months (SD=2.33 months) with 53.7 % being male.
Results: Seven participants, all previously distressed were still depressed (EPDS score of <12). Previous distress significantly increased the risk of depression at 2 years postpartum, and significantly decreased maternal attachment quality. Current depression negatively affected maternal attachment quality. Maternal self-efficacy was positively correlated with maternal attachment quality. Maternal self-efficacy was found to moderate, rather than mediate, the relationship between current depression and maternal attachment.
Conclusions: Few studies follow-up participants beyond 2 years. Childbirth distress increases the risk of depression at 2 years postpartum. Childbirth distress and current depression negatively affect maternal attachment quality. Maternal self-efficacy appears to buffer the negative effect of depression upon maternal attachment quality. Limitations, clinical implications and recommendations for future research are discussed.

Impact of Caring for Bereaved Parents and Protective Factors on Maternity Health Professionals.

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Aims: Caring for traumatised populations may have adverse mental health outcomes for caregivers. We investigated the prevalence of compassion fatigue, secondary traumatic stress, compassion satisfaction and burnout in maternity healthcare professionals providing care to bereaved parents who experienced a stillbirth or neonatal death. Possible protective factors such as age, experience, job stress, social support and previous history of trauma were explored.

Method: A correlational, non-experimental, descriptive design was employed. All members of the Queensland Maternity and Neonatal Clinical Network (SMNCN) were invited to complete an online survey. A sample of 201 participants was recruited.
Results: Around a third (30.3 %) of participants reported moderate compassion fatigue and high secondary traumatic stress (32.3 %). Around half (50.7 %) reported moderate levels of burnout. The majority (90 %) reported high levels of job stress. Some participants (40 %) reported high levels of compassion satisfaction. Social support moderated compassion fatigue when job stress was high. High levels of social support elevated the satisfaction gained from caring for bereaved parents in participants who had low job stress.
Conclusions: Maternity health professionals who have high levels of job stress but high social support are less susceptible to develop symptoms of compassion fatigue and more likely to report compassion satisfaction than those with low social support. The moderating effect of social support on job stress warrants further investigation. Strategies to monitor and enhance the emotional well-being of maternity staff should be implemented to optimize staff well-being, retain staff and facilitate the provision of better care for bereaved parents.

Debating the Pros and Cons of Providing E-Therapy for women who screen positive for perinatal depression: A best-practices model

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Aims: The low levels of treatment that women at risk and women screening positive for perinatal and post-partum depression (PPD) receive, raises public health concerns about missing critical opportunities for promoting the mental health of women and their infants. Women frequently report reluctance to seek treatment for fear psychiatric stigma and the incongruence with societal norms which assume that child-birth is a joyful experience. The aim of this presentation is to review the clinical and empirical evidence on the feasibility of providing psychotherapeutic treatment for PPD through the internet. Further, the advantages and disadvantages of this modality will be reviewed vis-à-vis specific therapeutic goals of best practices for PPD.
Methods: Combining a review of published studies and with clinical experience from both group and individual work with over 250 post-partum mothers at risk for PPD, and a focus group conducted with mental health professionals, we critically debate the best practices suggested when considering provision of treatment for PPD using the web. Focusing on specific therapeutic tasks (e.g. screening for PPD, establishing therapeutic alliance, providing a safe place to validate experiences, evaluating reflection on parenting of the specific infant, developing reciprocal social support between other mothers), we evaluate their suitability for treatment through the internet compared to conventional face-to-face psychotherapy.
Results: A review of the literature shows evidence that the internet has been a successful modality for other types of structured, brief depression treatments. One small study was found of "telecare", CBT provided over the phone but no published studies of e-therapy for PPD were found. A joint Australian–US group is in the process of developing an e-therapy program. A best-practice model suggests that at least one or two face-to-face meetings at home or in the office are desirable to establish practitioner alliance. CBT provided over the web offers a reasonable alternative for individual psychotherapy yet may be more difficult for relaxation techniques, art therapy or group interactions.
Conclusions: There is reasonable evidence to suggest that web-based therapy is a feasible and effective alternative to office-based interventions, particularly when transportation, distance, cost, child-care and social stigma are salient issues.

Deaths During the Post Partum: To Understand and to Prevent

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Giving birth has been for a long time associated with the fear of death. Nowadays estimated global maternal mortality occurring in the developed world is less than 1 %. However psychiatric causes are usually not included in theses statistics. Most suicides occuring in the perinatal period are linked to psychosocial factors exacerbated specifically by the pregnancy and about half of suicides are occuring during "puerperal psychoses". Non obstetrical deaths, even resulting from suicide, risk taking or violence, sometimes called incidental or accidental, are still leading causes of maternal death although they are far less studied. Infant mortality rate is about [0.3–0.7] %. Although infanticide has become a minor cause of infant death in developped countries, the real rate is difficult to know and has been estimated till 1 for 5,000 births in some studies. The murder rate of babies in industrialized countries is associated to the suicide rate of the nation rather than the murder rate. In most studies less than 30 % of infanticides have been linked to psychiatric disorders.
We will focus on the main unresolved questions about infanticide, with a particular interest to psychological and sociological aspects of the question.
We will first exam and give examples of methodological flaws. There is a lack of consistency about the rate of infanticide resulting mainly from heterogeneity and unreliability of the data, variations of the definition and difficulties to establish with certainty the causes of the death Psychiatric diagnoses are also questionable, because influenced by judiciary's preoccupation. Moreover, a large part of mothers who committed infanticide are not known and hence are without diagnosis. Cohorts of studied infanticide mothers are often very little and reliable statistics cannot be established.
Considering theoretical aspects, social causes are often predominant either in industrialized and non-industrialized mother although their links with psychological aspects of the criminal act is difficult to establish psychologically. Psychiatric causes are predominantly bipolar disorders, acute psychoses, schizophrenia and borderline personality. However these disorders are infrequent in neonaticides. The psychological state of the mother realizing neonaticide is still debated without significant studies on that matter. Legal preoccupations are also central in this debate because some psychologists or psychiatrists who denied any particular mental state of the mother pleaded to suppress the infanticide act and increase massively the judicial punishment of the infanticide mothers.
In conclusion, infanticide also belongs to a national and cultural definition and its epidemiology could not be correctly interpreted without the inclusion of these factors.

Association Between Parity and Perinatal Mood Disorders

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Aim: To test the association between primiparity and perinatal mood episodes Methods: The sample was recruited as part of our ongoing research on genetic and non-genetic determinants of major affective disorders. Only parous women with an age of onset below 50 were included in the present analyses. Data were available on 1,296 women with DSM-IV bipolar disorder and 499 women recurrent major depression. Pregnancy by pregnancy data were collected for 2,972 full term deliveries from 1,409 women.
Participants were interviewed using the Schedules for Clinical Assessment in Neuropsychiatry and psychiatric/general practice case notes were reviewed. These data were combined for each participant to form a written case vignette. Best-estimate lifetime diagnoses were made according to DSM–IV, ICD–10 and RDC. Different time criteria were employed to define an episode as related to childbirth.
In the mixed models the variance of the random effect was close to zero, so univariate comparisons were performed using contingency table and Chi-Squared statistics for categorical variables. To test the effect of primiparity and other possible covariates on perinatal episodes several regression models were considered and compared with the maximum likelihood test.
Results: Primiparity was associated with perinatal psychosis ($p<0.01$) and perinatal major depression in women with recurrent major depression ($p<0.01$), but not in those with bipolar disorder ($p=0.35$), regardless the time period covered by onset specifier.
The association between primiparity and mood disorders was not biased by the smaller likelihood of women achieving a second pregnancy after an episode or by the age at pregnancy.
Primiparity remained the only variable associated with postpartum psychosis ($p<0.01$) and postnatal depression ($p<0.01$) also in the multivariate analyses.
Conclusion: Primiparity was associated with perinatal affective psychosis and unipolar perinatal depression. First pregnancies may be a greater psychosocial stressor than subsequent deliveries, but significant biological differences may also play a role and are candidates for further studies, as potential clue to the aetiology of puerperal triggering. There is, in fact, an interesting overlap with other pregnancy related disorders, such as pre-eclampsia.

Towards Parenthood. A Public Health Intervention to Prepare for the Transition to Parenthood

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Aim: This antenatal intervention was designed to prevent early parenting difficulties and minimize the impact of mood disorders in women at low and high risk of depression. It was created to address the needs of a broad population of women serviced by public maternity hospitals as a self-directed guidebook supported by telephone calls. **Methods:** The intervention targets were selected on the basis of clinical wisdom and an exhaustive empirical review of risk factors impacting on parenting outcomes and perinatal depression. An extensive review of existing local and international parenting support programmes was also conducted. Focus groups and pilot studies were conducted to confirm acceptability. Expectant mothers and their partners received self-directed learning guidebook comprising of six units addressing the following issues:- Transition to parenthood—Partner difficulties—Coping with a life stress—Family of origin experiences—Antenatal attachment to foetus –Practical parenting skills. Fortnightly phone calls from a psychologist were provided to monitor compliance and engagement with content. The format included interactive exercises, partner involvement and cartoons.
Results: Two randomised controlled trials were conducted to compare women at risk of antenatal depression receiving the intervention with those who did not, on a range of questionnaires including the Beck Depression Inventory and the Parenting Stress Index. Partners were also included. A similar comparison was made for nondepressed women. In the initial study, 200 women were randomised and effectiveness of the program was demonstrated despite low compliance with telephone sessions. Women from 32 weeks gestation and their partners were involved. Changes on the Beck Depression Inventory and Parenting Stress Index were found. Refinements of the intervention to increase compliance was followed by a second evaluation of $n=150$ and intervention benefits for both depressed and non-depressed women were found, with larger changes in BDI score the higher the score at entry. Parenting stress also decreased and partners self-rated as less depressed and stressed postnatally.
Conclusions: Self directed minimal intervention antenatally is a useful health intervention. Towards Parenthood has been published (ACER) and will be translated into other languages this year.

We Should Work with Parents' Associations to Improve our Response to their Needs

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The CIANE (a collective of parents'associations concerned with chilbirth) advocates the respect of parents as they make choices and decisions during pregnancy, birth and early care of their baby. Acknowledging them as central actors in this period of life, with enough skills to impose legitimate choices, is therefore a precondition to any collaboration between mental-health professionals and parents' associations.
This common decision-making can only be conceived if we acknowledge the skills of our associations, our expertise—even lay—and hence the capacity to act, as parents and with parents, as full-fledged actors of the perinatal system.
Today's obstetrics seems to display some curiosity for the emotional, mental and affective experiences of parents and their babies. Indeed a few pioneering professional speeches insist on taking these crucial data seriously; still one must admit that tangible evolutions remain much unnoticed.
In France, attention paid to the factors of vulnerability for mothers-to-be has become a repetitive and politically correct phrase which has slightly biased the original promising concept. In the same time,the

practice and attitudes of caregivers, yet very much the sources of vulnerability, are seldom questioned. Today it has become essential to take into consideration the direct influence of medical acts and viewpoints on the well-being of mothers, fathers, their babies and relational aspects.
Doctors should take into account the specific role played by our associations in the "care" given and in the recovery process of hurt and weakened mothers. Steady relationships between a woman, a couple and an activist parent listening to them often allows a professional to follow up, which could not be previously considered.
What is in question is properly for professionals to « act with » parents'associations. Besides, this collaboration should be the reflect to a necessary parthership between parents and maternity doctors led to work with them during pregnancy, childbirth and postpartum.

Breastfeeding is Negatively Affected by Prenatal Depression and Reduces Postpartum Depression

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Breastfeeding is negatively affected by prenatal depression and reduces postpartum depression
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Breastfeeding has been associated with numerous positive health-outcomes for both the child and the mother. However the mother's psychological well-being benefits need more supportive empirical evidence. The association between postpartum depression and breastfeeding remains equivocal. While some studies suggest that postpartum depression may cause early cessation and depressive symptoms have been noted to precede the cessation of breastfeeding other studies show that postpartum depression emerges in the sequence of and may result from breastfeeding interruption. This prospective cohort study explored the effects of prenatal and postpartum depression on breastfeeding and the effect of breastfeeding on postpartum depression.
The Edinburgh Postnatal Depression Scale was administered to 145 women at the 1st, 2nd and 3rd trimester, and at the neonatal period and 3-months postpartum. Data regarding exclusive breastfeeding were collected until 12-months postpartum. Data analyses were performed using repeated measure analysis of variance, univariate analysis of variance, logistic regression, and multiple linear regression.
The results showed that depression symptoms at the 3rd trimester, but not at 3-months postpartum, were the best predictors of the length of exclusive breastfeeding. The results also showed a significant decrease in depression symptoms from childbirth to 3-months postpartum in women who initiated/maintained breastfeeding, while no significant differences were observed in cases of breastfeeding early cessation/no initiation, these two variables showed to be significant predictor of postpartum depression.
This study suggests that screening for depression symptoms during pregnancy could help identify women at risk for early cessation of breastfeeding, and that breastfeeding may be a protective factor for postpartum depression.

The Impact of Subjective Birth Experiences on Posttraumatic Stress Symptoms: A Longitudinal Study

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Aim: The aim of this prospective study was to examine the etiology of posttraumatic stress symptoms following childbirth within a transactional framework of stress.
Methods: Participants were women (N=1,499) from the Akershus Birth Cohort. These women were followed from pregnancy to 8 weeks postpartum. We modeled predisposing factors (e.g., fear of childbirth) and precipitating factors (subjective and objective birth experiences) as predictors of posttraumatic stress symptoms. Posttraumatic stress symptoms were measured by means of the Impact of Event Scale, objective birth experiences by means of birth journals, and subjective birth experiences by means of 3 questions.
Results: A structural equation model showed that subjective birth experiences had the highest association with posttraumatic stress symptoms. Moreover, they mediated the effect of predisposing factors and objective birth experiences.
Conclusion: The results suggest that women's subjective birth experiences are the most important factor in the development of posttraumatic stress symptoms following childbirth.

Child Cohorts from Childbirth, Impact of Parental Mental Health (Cohorte ELFE)

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Infant national cohorts follow-up from pregnancy till adulthood are rare. Each cohort has focused on some main questions that we will review.
After a pilot study started in October 2007, a French national infant cohort of 18,250 infants has been recruited during 2011. All mothers of new-born infants (after 33 SA) who delivered in 310 maternity units, during four periods of 4 to 8 days, in France, were informed about ELFE Cohort and half of them accepted the inclusion of their infant in the cohort. Children and their families will be followed-up hopefully until adulthood by the ELFE cohort team.
This longitudinal study includes, face-to-face interviews with the mother, information from medical files, biological samples, self-administered questionnaires on health of both parents, family structure, nutrition, etc… Later on at different periods after childbirth (2 months, 1 year, 2 years, 3 years, etc…) there will be a follow-up by telephone interviews with both parents and child evaluations of early psychomotor, cognitive and social development.
Our project within this cohort is to study the link between parents' mental health and the child's health and development. Data on early relationship between the child and his/her parents as well as health care use have been also collected. The EPDS (Edinburgh Postnatal Depression Scale) was used to assess mother's and father's symptoms of depression during the postpartum period.

The main hypothesis which will be tested, based on previous studies conducted in smaller samples by different authors is the following: mother and father mental health have an independent impact on child development; maternal chronic depression has more impact than short early episodes; socio-familial context may modulate those impacts. Results from the pilot study will be presented and discussed.

Integrating Mental Health Care into Maternity Care Settings: Lessons from South Africa

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Aims: To describe the model of the Perinatal Mental Health Project (PMHP) and the key lessons learnt from 9 years' experience.
Background: Between 35 % and 47 % of women living in poverty in South Africa experience perinatal mental health disorders.
The PMHP provides a maternal mental health service integrated into antenatal care at four Midwife Units in Cape Town*. Women are routinely screened for mental disorders antenatally. Those meeting cut-off criteria are referred for on-site counselling. Those with severe pathology are referred to on-site psychiatric services.
Methods: At one community-based site (HP), diagnostic data were collected for 327 pregnant women. For the initial service site, (MMH), routine service monitoring data were collected over a 9 year period.
Results: At HP, 33 % were diagnosed with Major Depressive Disorder and a further 19 % were diagnosed with other disorders. At MMH, increased screening coverage, service uptake, counselling sessions and decreased loss to follow-up indicated improved service delivery over time. At postnatal follow-up, 60 % of a sample of 99 clients indicated their primary problem had 'much improved' or 'resolved completely'. Strategies adopted to improve service delivery included:
• employment of full-time dedicated counsellors;
• routine screening for mental distress at first antenatal visit;
• ongoing, in-service training of health workers in mental health care to address knowledge gaps and teach screening skills;
• addressing the mental health needs of healthcare workers
Conclusions:
1. The maternity care environment should be adequately prepared to integrate and support a mental health service. Engagement with existing staff should include training in mental health and an acknowledgement of staff's own mental health needs.
2. Clear stepped referral pathways should be established.
3. Counsellors require adequate supervision, debriefing and support. This minimises unnecessary referral beyond the primary level and protects the counsellors' sustainability.
4. Maternal mental health services require responsive management.
5. Complementary strategies, such as health worker training and support, advocacy and liaison, improve the sustainability, reach and quality of the service.

Does Serotonin Transporter Gene Polymorphism Influence the Maternal Psychological Reaction Shortly After Sonographic Detection of Fetal Anomaly?

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Aims: The serotonin transporter gene (5-HTT) possesses a functional promoter-region polymorphism, which is associated with temperament and personality traits, e.g. anxiety. In post-traumatic stress syndrome an additive gene-environmental interaction between the high expression allele of 5-HTT and frequent or repeating trauma is described. The aim of the present study was to examine the association between 5-HTT polymorphism and development of psychological distress shortly after detection of fetal anomaly.
Methods: A prospective, observational study was performed at a tertiary referral center for fetal medicine. Pregnant women (n=144) after gestational age 12 weeks were included within a week of the sonographic detection of a fetal structural anomaly. Psychological distress was assessed using the Impact of Events Scale (IES-22) (intrusion, avoidance, and arousal), Edinburgh Postnatal Depression Scale (EPDS) and the anxiety and depression subscales of the General Health Questionnaire (GHQ-28). Social dysfunction and health perception were assessed by the corresponding subscales of the GHQ-28. Fetal anomalies were classified according to severity and diagnostic or prognostic ambiguity at the time of assessment. The short (S) and long (L) polymorphisms of 5-HTT were genotyped (LL, SL, or SS).
Results: The length of the 5-HTT did not significantly influence the psychological distress (two-way ANOVA). The mean value of the GHQ subscale depression in women with 5-HTT LL, SL or SS was 1.3, 2.5 and 3.0, respectively (p=0.069). The severity, and the ambiguity, of the prognosis or diagnosis were the significant explanatory variables.
Conclusion: There was a trend for the length of the 5-HTT gene to be associated with psychological reaction shortly after detection of fetal structural anomaly by ultrasound.

Validity of DSM Diagnosis of Depression Perinatally and Changes of DSM Diagnosis of Depression by Month of Pregnancy

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Abstract: Introduction Pregnancy and the postpartum may affect rates of new onsets and spontaneous recovery from depression. However, it has not yet been tested.
Method: The Structured Clinical Interview for DSM IV (SCID interview) was used that allowed assessment of DSM IV diagnoses of depression. The interview was carried out assessing all symptoms of depression irrespective whether the participating women fulfilled the entry criteria of depression or not and assessing each month separately in a sample of 892 consecutive women in Switzerland.
Results: Data collection has been completed. Analysis is underway. First results will be presented at the conference.

Prescribing for Mothers with Depression—An Analysis of Current Views and Practices Within Australasia

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Aims: Psychiatric disorders in the perinatal period are common. Depressive illness in mothers has been associated with detrimental effects upon both mother and child. Antidepressants may be indicated, after considering risks and benefits. A Scottish study conducted in 2007 (Kean LJ, Hamilton J, Shah P. Antidepressants For Mothers: What Are We Prescribing? Scott Med J May 2011 56: 94–97) identified inconsistencies and low levels of confidence amongst general practitioners who were asked to recommend antidepressants for mothers with depression.
We investigated the current prescribing practices and understandings amongst Australasian psychiatrists when treating mothers with depression. Our primary aim was to identify areas of educational need.
Methods: We gathered information by way of online survey. Participants were invited to complete the survey via an email from the Royal Australian and New Zealand College of Psychiatrists. We surveyed all clinicians across Australasia. We gathered demographic details, levels of experience and confidence in perinatal psychiatry. Using two case vignettes (a pregnant woman with depression in her first trimester and a breastfeeding mother with postnatal depression), the participants were asked to recommend medications to choose or avoid, with reasons given and were asked about sources consulted when making these prescribing decisions. The responses were categorised and quantitatively analysed.
Results: In this presentation, we will present our initial findings from the pregnancy case vignette, describing the antidepressants favoured or avoided by the participants, and their most common reasons for these choices. Over a quarter of clinicians suggested a class of antidepressant to prescribe or avoid, rather than a specified medication. The most popular sources consulted are presented. We consider the implications for prescribing choices and educational need.
Conclusion: Prescribing in pregnancy and to breast feeding women is a challenge for prescribing clinicians. Perinatal psychiatrists are in a good position to provide evidence based and up to date information to our colleagues to enable them to make sound risk benefit decisions with this prescribing.

Impact of Health Visitor Interventions on Prevention of Multiple Preterm Childbirth

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Among the various professionals intervening at home, Social and Family Intervention Workers are fulfilling a specific role since many years. Licensed social workers bring domestic aids to help families in the organization of everyday life, care and education of children. Their specific strategy of intervention is based on “doing”, “doing with” and “making do”. They bring a professional support in the relationship to both parents and children, with long-term, repeated interventions at home. This family alliance allows them to improve parental skills and facilitate the child’s interests. Their action is based upon and financed within the framework other social-intervention organizations:i.e. programs led by the Allowance of Family Funds, programs for child welfare led by Mother and Child Care Services, as well as Social Help for Childhood services.

Multiple fetus Pregnancies are at risk for preterm childbirths and their number are increasing In France. Health visitors interventions during pregnancy are more and more often reaching these pregnant women.
A study from the Perinatal Health Network located in Paris suburb has tested the impact of those interventions on rate of preterm childbirth.
The results show that preterm birth is twice less frequent in the group with health visitor intervention.
The implication of those results for health professional on choice of care and support for those women has to be discussed

Cortisol Patterns of Depressed Mothers and their Infants are Related to Maternal-Infant Interactive Behaviours

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Background: Postpartum depression (PPD) reduces maternal-infant interaction quality, stresses infants, and produces adverse child social and cognitive developmental outcomes. Less than optimal maternal-child interactions may affect child development via overactivation of the Hypothalmic-Pituitary-Adrenal (HPA) axis linked to altered cortisol patterns. Increased levels of salivary cortisol levels predict depression, anxiety and withdrawal from social interaction in mothers and reduced cognition and memory, attentional difficulties, poor self-control, and behavioural problems in children. While cortisol levels of mothers and infants are strongly correlated, numerous environmental, maternal, infant and maternal-infant interactive factors may also contribute to cortisol patterns.
Aim: The objective of this study is to explore the influences on maternal and infant diurnal cortisol patterns for matched pairs of mothers and infants affected by postpartum depression.
Methods: Secondary analyses were conducted on data collected from mothers and their infants affected by symptoms of postpartum depression. Multiple regression models were undertaken to study mothers’ and infants’ diurnal cortisol patterns using area under the curve analysis.
Results: Having a preterm child predicted both an increase in overall cortisol levels and reduced the daily decline in cortisol patterns for mothers. Difficult life circumstances also predicted a reduction in mothers’ expected daily decline in cortisol. For infants, maternal-infant interaction qualities including cognitive growth fostering and socioemotional growth fostering activities reduced overall cortisol levels and increased the daily decline in cortisol, respectively.
Conclusion: For mothers, preterm birth is the most robust predictor of elevated cortisol levels. For infants, having a mother who provides more optimal cognitive and socioemotional growth fostering activities predicted lower levels of infant cortisol.

Postpartum Support International (PSI): An Introduction and Overview

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PSI was established in 1987 by Founder, Jane Honikman. Postpartum Support International (PSI) is the world's largest non-profit organization dedicated to helping women suffering from perinatal mood and anxiety disorders, including postpartum depression, the most common complication of childbirth. PSI was founded in 1987 to increase awareness among public and professional communities about the emotional difficulties that women can experience during and after pregnancy. The organization offers support, reliable information, best practice training, and volunteer coordinators in all 50 U.S. states as well as 36 countries around the world. Working together with volunteers, caring professionals, researchers, legislators and others, PSI is committed to eliminating stigma and ensuring that compassionate and quality care is available to all families. It is a mission of PSI to promote awareness, prevention and treatment of mental health issues related to childbearing in every country worldwide. This mission is accomplished with a toll-free warmline in English and Spanish, Educational Trainings for Assessing and Treating PMD's and for initiating and sustaining Social Support Networks. Our resources include books by Jane, and 2 DVD's on PMD's-1 in English, 1 in Spanish, On-line support groups, an informational website, and social media (Facebook page and Twitter). The Aim of this presentation is to outline the journey of PSI, and all that it offers today, and how the mission is accomplished.

Immune activity and Distress in Pregnant Adolescents' Poor Birth Outcomes

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Introduction: On any given day in the United States, more than 1,100 adolescents give birth, and their children are at increased risk for adverse perinatal outcomes. New research with adults links antenatal distress and elevations in inflammatory cytokines to lower birth weight and earlier birth age. This psychosocial approach has yet to be examined in pregnant adolescents.
Aims: To determine if greater elevations in distress and markers of increased inflammatory activity (C–reactive protein (CRP), Interleukin–6 (Il–6)) are associated with poor birth outcomes in pregnant adolescents.
Methods: A sample of 208, predominantly Latina, pregnant adolescents (15–20 years old) was followed throughout pregnancy; data collected in each trimester were: 24-hour, every 30 min, ambulatory monitoring of distress on a Personal Diary Assistant (PDA); blood draw and self reports of current mood (the Perceived Stress Scale, Pregnancy Distress Questionnaire, Rumination Scale, the Dysfunctional Attitude Scale, the Reynolds Adolescent Depression Scale). For the PDA assessments, a negative score for each trimester was derived from ratings on: anger, frustration, strain, Irritation, stress, and loneliness.
Results: There was high internal consistency on both the PDA (cronbach's alpha~0.90) and mood assessments (cronbach's alpha~0.70). The correlations between the PDA and mood assessments were weak (highest r=.48 in the 1st trimester), and weakened over pregnancy (highest r=.24 in the 3rd trimester). Averaged across pregnancy, the negative PDA score predicted shorter gestational age (p=.01) and physical length (p=.03). Controlling for average, across–pregnancy perceived stress and urinary and yeast infections, higher average level of CRP was associated with lower weight (p=.02), shorter physical length (p=.03), and smaller head circumference at birth (p=.01).
Conclusions: These data suggest that elevations in prenatal distress and an indicator of immune activity, CRP, are related to compromised birth outcomes in pregnant teenagers. However, distress data derived from ambulatory ratings are only weakly related to self reports of mood yet may provide more ecologically valid, and thus predictive, data.

Specialist Perinatal Mental Health Services: Characteristics of Women & Services Provided

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Introduction: In Australia, integrated models of care are being explored for women who need additional support during pregnancy and after birth. Many women identified as having risk factors for poor perinatal mental health are referred to specialist perinatal and infant mental health (PIMH) teams. To date however, there has been limited evaluation of these teams and the services they provide.
Aims: This presentation will:
1. describe the characteristics of women who are referred to specialist PIMH teams;
2. report on the services that the specialist PIMH teams provide to women; and
3. illustrate how specialist PIMH clinicians envisage their role with women and other services.
Methods: A mixed method study (utilising both quantitative and qualitative methods of data collection and analyses) was undertaken in two sites in New South Wales, Australia. 240 medical records were reviewed of women who had been a client of a specialist PIMH team between 2010 and 2011, representing 85 % of the caseload over this time frame. 10 women who had accessed the services of a specialist PIMH team and 12 professionals were interviewed.
Results: 70 % of women were multiparous, 75 % were married or living as married, over 90 % of women had greater than 2 risk factors and the majority of women received over 3 types of interventions e.g. supportive counselling, psychoeducation.
Specialist PIMH teams are multidisciplinary. Professionals use a number of strategies to engage women including home visits, text messaging and written letters. Following initial referral, the PIMH service made on average 2–3 phone calls to make contact with women and 8 % of women did not engage in the service.
Professionals work in both a case management model and a therapy model, depending upon the needs of the woman, and provide a consultative role for other services e.g. adult mental health, private obstetricians.
Women reported that they highly valued the service but did not have a strong sense of the interventions they were receiving.
Conclusions: This study has helped provide clarity about specialist PIMH teams, a little researched area, the services that are provided and the characteristics of the women who receive the care.

Actions of the French Association for the Recognition of Pregnancy Denial

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Pregnancy denial is a very peculiar situation, for what it is (being pregnant without being conscious about it) and for its multiple consequences the traumatic experience of such a situation for the woman, the inappropriate reactions of the family environment as well as of professionals (of birth, of mental health, of health in general, of police, of justice…). The lack of knowledge, not to say the ignorance, about this phenomenon, indeed plays a role in those negative consequences.

AFRDG (the French Association for the recognition of pregnancy denial) was founded to give an answer to those situations. More than 500 women having experienced a pregnancy denial, have, until now, contacted us, in most cases at a significant time (discovery of pregnancy in cases of partial denial, delivery in cases of total denials encompassing the whole length of pregnancy), but in other cases later, sometimes even years after.

The action of AFRDG has 3 targets:professionals, with scientific information (organisation of conferences, publication of preceding and papers); lay audience with popularization of information (briefings, testimonies in various medias, publication of testimonies); women and their families that AFRDG can help along towards support.

Our contribution will present those 3 aspects and their respective interests.

Antenatal Depression and Infant Sleep 6 Months Postpartum, Examining the Moderating Effects of the Serotonin Transporter Polymorphism and Temperament

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Antenatal depression predicts a range of adverse child outcomes, including disturbed infant sleep (O'Connor et al., 2007). Recent gene-environment interaction studies, using this specific polymorphism, suggest that the polymorphism in the serotonin transporter promoter gene area (5-HTTLPR) may moderate the effect of negative early life events on a number of phenotypic outcomes. Reactive temperament has also been shown to be a moderator of the effects of a range of negative life events on developmental outcomes. Infant sleep is identified as an important marker of early bio-behavioural development. Serotonin has been extensively linked to the study of sleep and has implicated in both sleep and wake promoting processes. This study examined two moderators, a polymorphism in the serotonin transporter promoter gene area and infant reactive temperament.

Methods: We examined whether the association of antenatal depression at 32 weeks gestation (Edinburgh Postnatal Depression Scale) and infant sleep at 6 months (measured as total sleep time and number of awakenings) would be moderated a) by the polymorphism in the serotonin transporter promoter gene area 5HTTLPR and b) by mother-rated reactive temperament, in a large population cohort (the Avon Longitudinal Study of Parents And Children, n=5,402). We hypothesized that the association between maternal mood disturbance and infant sleep

a) would be stronger in those infants with low activity alleles of the serotonin transporter gene (5-HTTLPR) compared to those with high activity alleles

b) would be stronger in infants with reactive temperament. Infants with more reactive temperament would be more susceptible to the effects of antenatal depression and would exhibit less total sleep time and a higher number of awakenings.

Results: Depression was not found to predict sleep at 6 months. Regression models did not show evidence of a moderating effect of serotonin x depression. Reactivity however was found to be a moderator of sleep problems and number of awakenings.

Conclusion: These findings suggest different developmental trajectories for individuals with different temperamental characteristics. They further support that high reactivity is associated with differential vulnerability to negative life events, such as antenatal maternal depression, even during very early development.

Antenatal Depression and Maternal and Offspring Hypothalamic-Pituitary-Adrenal (HPA) Axis

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Aims: To examine the effect of antenatal depression on maternal and offspring HPA axis, in order to improve the understanding of the mechanisms of developmental programming.

Methods: Pregnant women were recruited at 25 weeks gestation; cases had a DSM-IV diagnosis of major depressive disorder (MDD) during pregnancy and controls had no history of psychiatric disorder. Demographics and mood were assessed at baseline; saliva cortisol was measured at awakening and 8pm at 32 weeks gestation, and infant saliva cortisol response to a painful stressor (before and 20 min after immunization) was measured at 8 weeks and 1 year postnatal. Case and control women were compared for cortisol, and their offspring for cortisol response to stress. Correlations were measured between maternal cortisol and infant cortisol response to stress.

Results: 66 pregnant women were recruited, 46 controls and 20 cases. As cortisol values were not normally distributed, logarithm transformations were performed for the analyses; untransformed data are reported.

Compared with controls, those with antenatal depression had higher evening saliva cortisol at 32 weeks gestation; control mean 3.25 nmol/L (SD 3.73), cases mean 5.12 nmol/L (SD 3.68), t (64) =2.66, p=.01. For infants at 8 weeks postnatal, there was an overall positive correlation between maternal evening saliva cortisol at 32 weeks gestation and the size of infants' cortisol stress-response, r=.346 p=.01. At 1 year postnatal the correlation was not significant. In contrast, for infants at 1 year postnatal there was a significant interaction effect of exposure to depression in-utero on saliva cortisol stress-response, F(1)=8.61, p=.006. The cortisol decreased in control offspring, delta mean −1.10 (SD 2.16), whilst it increased in case offspring, delta mean 1.88 (SD 3.82), independent t test F=−2.91 (36), p=.006.

Conclusion: In support of proposed biological mechanisms of foetal programming, these results show that MDD in pregnancy is associated with altered HPA axis activity in mothers and their offspring. This has not previously been reported in prospectively assessed and operationally defined depression in pregnancy.

Attentional Processing of Infant Emotion During Pregnancy and How it is Related to Depressive Symptoms and Mother-Infant Relationships After Birth.

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Background: Growing evidence suggests that perinatal depression is associated with disrupted mother-infant interactions and poor infant outcomes. Antenatal depression may play a key role in this cycle by disrupting the development of early infant responsive maternal thinking and behaviour. We suggest that the extent to which a mother is responsive to infant signals will rely on her cognitive processing of such displays. The current study therefore investigated the impact of depressive symptoms on the basic cognitive processing of infant stimuli across pregnancy.
Method: 101 women were recruited through community midwives and tested during early (11 weeks) and during late pregnancy (37 weeks). An established computerised paradigm measured women's ability to disengage attention from infant faces displaying distressed, happy and neutral emotions. From this paradigm we obtain an index of women's attentional bias towards infant distress. Depressive symptoms were measured using a computerised clinical interview (the CIS-R) and postnatal mother-infant relationship was measured using the postnatal bonding questionnaire (administered 3 months afterbirth).
Results: Non-depressed pregnant women took longer to disengage attention from distressed compared with non-distressed infant faces. This bias was not, however, seen in women experiencing depressive symptoms. During pregnancy (both early and late stages), our index of attentional bias towards distressed infants was found to be 50ms (95 % CI 20–80 p=0.001) lower in women experiencing depressive symptoms compared to those who were not. In addition reduced attentional bias towards infant distress during late pregnancy predicted more impaired mother-infant relationships after birth. For every 50ms increase on our measure of attentional bias towards infant distress during late pregnancy, the odds ratio for reporting more impaired relationships after birth was 0.43 (95 % CI 0.23–0.81 p=0.01).
Conclusions: The findings have potential implications for our understanding of the impact of depressive symptoms during pregnancy on the developing mother-infant relationship. Depressed women's processing of infant emotion could help explain the negative impact of depression on mother-infant engagement and child outcomes. A particular aim of understanding depressed pregnant women's attentional response to infants is to develop interventions which improve mother-infant engagement early as early as possible.

Perinatal Mental Health in the Australian Family Law Context: Clinicians and Practitioners Taking Action Together

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Parenthood represents a major life transition that involves a range of interconnected social, emotional and physical changes. In Australia approximately 16 % of mothers and 10 % of fathers experience perinatal anxiety and/or depression around childbirth.
Separation and divorce, too, represent major stressors in the lives of family members, particularly where changes in children's parenting arrangements are concerned. It, too, is a time of profound physical, relationship and psychological change. While sometimes the transition from one family constellation to another goes smoothly, for other families, this is a time of loss and crisis for which parents and children are seldom prepared.
This presentation uses anonymous clinical family law case material to highlight the issues for families and practitioners when the domain of perinatal mental health fuses with the family law context where parents are in dispute about arrangements for their children. Stigma, social and economic disadvantage, attachment and high conflict will be considered.
Key messages include: the needs of families affected by perinatal anxiety and/or depression can be heightened within an adversarial legal process; other issues related to perinatal mental ill health can create highly complex family pictures; and parents and children's emotional well-being should be a priority in family law matters.
This presentation will highlight that:
• Mothers and fathers who have experienced perinatal mental illness are a significant population in the family law context
• Parents and children where one or both parents have a mental illness are particularly vulnerable to the stresses of family law proceedings
• It is possible for the domain of law to coexist with a mental health perspective to take action together towards the needs of parents and children
Practitioners in the field of family law along with social science clinicians are in a pivotal position to assist parents during crises. Professionals working together with families who have experienced perinatal mental ill health will most successfully help them to navigate the foreign emotional and legal terrain ahead of them.
Images of Australian artists, Rebecca Cool and David Wiggs, will be used to enhance the messages of taking action together.

Towards Integration: Inventive Approaches to Thinking About Perinatal Mental Health in Australia; Where Individual, Family, Clinical, Consumer, Community and National Landscapes Meet

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Approximately 16 % of Australian mothers and 10 %of fathers experience perinatal anxiety and/or depression. This accounts for a significant proportion of the approximately 23 % of Australian children who live in families where at least one parent has a mental illness. This presentation is dedicated to raising awareness of the needs of the children and their parents who are affected by perinatal mental health problems.
Parenthood in Australia represents complex intersections of production, consumption, race, class, education, health and wellbeing. The unique Australian geography and demographic elements present many challenges to our nation, services and individuals caring for at risk

families. Through prioritising the emotional wellbeing of parents and children, reflecting on current medical and consumer discourse, and by expanding the medical model of treatment, attempts are being made to integrate the management of perinatal mental health.
From National Initiatives such as COPMI (Children of Parents with Mental Illness) and consumer driven non-government organisations such as the Gidget Foundation, to individual practitioners, signs of a cohesive approach are emerging. This presentation places perinatal anxiety and depression within a broader social framework of interconnecting perspectives.
Key messages include: the value to parents and children of an integrated approach; the need for many levels of dialogue around maternal depression and anxiety; and that a fusion of consumer and professional experiences can drive innovative approaches to practices.
The presentation will highlight that;
• From individual life experience to national movements, collaborative perinatal mental health matters
• The more integrated we are in our thinking and services, the more children and their parents who are at one of the most vulnerable times of their lives will benefit
Our ideas and optimism will be conveyed with the help of images of artists of the Sydney Dance Company, with permission.

Relationship Between Religious Practice, Alcohol Use, and Psychiatric Disorders Among Pregnant Women

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Background: Mental health of pregnant and postpartum women is a topic widely discussed in scientific literature. During this period, women are going through major changes in physical, hormonal, psychological and social aspects, and thus become more susceptible to psychic problems. The relationship between health and religiousness is also evident in the literature, however there are no studies examining this relationship among pregnant women.
Objective: To investigate the relationship between religious practice, prevalence of psychiatric disorders, and alcohol use in pregnant women users of The Brazilian National Health System in Juiz de Fora, Brazil.
Materials and methods: This is a cross-sectional study, involving 260 pregnant women of Juiz de Fora. Data collection was performed in care centers for pregnant women of the city, using a sociodemographic questionnaire (which included religious practice and religious filiation), the Mini International Neuropsychiatric Interview (MINI), and Alcohol Use Disorders Identification Test (AUDIT).
Results: Most pregnant women practiced a religion (60.8 %). Religious women show a lower frequency ($p \leq 0.05$) of diagnoses of Major Depressive Episode with Melancholic features, Hypomania episode, current Panic disorder with Agoraphobia, current Social Anxiety disorder, and Post-traumatic stress disorder. In the diagnosis of abuse of one or more psychoactive substances, there was a tendency to lower prevalence in the groups of religious women (p=0,057).
Discussion: It was observed in this study, that the religious women tend to have lower rates of mood disorders and anxiety disorders than pregnant women that do not practice their religion.

The Effect of Maternal and Paternal Age at Childbirth on Mental Health Outcomes in Offspring: A Longitudinal Cohort Study

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Aims: This study examined the relationship between parental age and longitudinal mental health outcomes in offspring, using data from the Western Australian Pregnancy Cohort (Raine) Study. We looked to examine what links, if any, exist between maternal and paternal age and internalizing and externalizing behaviours in offspring, and whether these relationships persist when accounting for known perinatal risk factors.
Methods: The Raine Study provided comprehensive data from 2 900 pregnancies, resulting in 2 868 live born children. Offspring were followed up at ages two, five, eight, 10, 14, and 17 years using the Child Behavior Checklist (CBCL). The CBCL provided clinical cut-offs for behavioral morbidity for overall, internalizing (withdrawn, anxious/depressed, somatic complaints) and externalizing (delinquent, aggressive) behavior ($T \geq 60$). We used longitudinal logistic regression models with stepwise adjustment for known prenatal risk factors (gestational age, maternal smoking in pregnancy, maternal education at pregnancy, parity, total family income, number of stressful life events during pregnancy and gender).
Results: In the unadjusted models, as both maternal and paternal age increased, there was a significantly decreased risk for the later development of total, internalizing, and externalizing problems in children throughout childhood. In the adjusted models, maternal age remained a significant predictor of total (OR=.98, 95 % CI=.97, 1.00) and externalizing (OR=.98, 95 % CI=.96, 1.00) problems, with increased age related to decreased behavior problems in children. Paternal age was no longer significantly associated with risk for child internalizing and externalizing problems, but remained a significant influence on overall behavioral morbidity, with increased age related to decreased problems in children (OR=.97, 95 % CI=.95, 1.00).
Conclusion: Preliminary findings indicate both advancing maternal and paternal age at conception contribute to the child's later behavioral development. We aim to further study this cohort to examine the contribution of maternal and paternal age in more detail, as well as the contribution of various psychosocial and socioeconomic confounds.

Implementing a Culturally Responsive Model of Perinatal Mental Health Care in a Rural Aboriginal Community in Western Australia

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Aims: This paper reports on the evaluation of an Aboriginal Perinatal Mental Health project developed and trialed over 6 years via a collaborative relationship between the Carnarvon Indigenous community, the

Western Australian Perinatal Mental Health Unit, the State Aboriginal Mental Health Service and the Central Midwest Mental Health Service.
Methods: Perinatal mental health in Australian Indigenous communities has received limited attention; however, there is sufficient evidence to show a high need for the development of culturally appropriate services for Aboriginal mothers and their families. Prior to implementation, questionnaires, focus groups and service mapping were used to gather qualitative and quantitative data from the community, stakeholders and local service providers. These methods of information collection were then utilised again 12-months and 32-months after service commencement.
Results: The results demonstrated an increase in social support networks for Carnarvon Aboriginal women, raised community awareness of perinatal mental health problems, and increased engagement with obstetric and mental health services. The multi-faceted approach to service provision was key to the success of the program, built on a solid foundation of trust. However, the health professional questionnaire indicated, despite some improvement to practical knowledge, more education and training is needed to improve early detection of perinatal depression.
Conclusion: The flexible, intuitive and culturally sensitive evaluation model aimed to highlight strengths—so they can be maintained and built upon, and identify weaknesses or gaps—so strategies can be formulated to address them. A number of challenges and important issues for consideration in establishing an Indigenous perinatal mental health service in a regional area were also identified.

Temporal Trends in General and Age-Specific Fertility Rates Among Women with Schizophrenia (1996–2009): A Population-Based Study in Ontario, Canada

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Purpose: Women with schizophrenia have traditionally had lower birth rates than women in the general population. Yet birth rates among women with schizophrenia have yet to be re-evaluated in the context of major changes in mental health care delivery over the past 2 decades. Our objective was to analyze recent trends in general and age-specific fertility rates among women with schizophrenia in Ontario, Canada.
Methods: We conducted a repeated cross-sectional population-based study from 1996 to 2009 using population-based linked administrative databases for the entire province of Ontario. Women aged 15–49 years were classified into schizophrenia and non-schizophrenia groups in each successive 12-month period. Annual general and age-specific fertility rates were derived.
Results: The General Fertility Rate (GFR) among women with schizophrenia was 1.16 times higher in 2007–2009 than in 1996–1998 (95 % confidence interval [CI] 1.04–1.31). The annual GFR ratio of women with vs. without schizophrenia was 0.41 (95 % CI 0.36–0.47) in 2009, which was slightly higher than the same ratio in 1996 of 0.30 (95 % CI 0.25–0.35). Annual age-specific fertility rates (ASFR) increased over time among women with schizophrenia aged 20–24, 25–29, 35–39 and 40–44 years, but the increase was not always statistically significant. Among women aged 20–24 years, the ASFR ratio in women with vs. without schizophrenia was not significant by the end of the study period (0.93, 95 % CI 0.70–1.22).
Conclusions: The general fertility rate among women with schizophrenia appears to have increased modestly over the past 13 years. Although this study was limited in terms of identifying the mechanisms for the observed increase in birth rate, it does redirect attention to the fact that women with schizophrenia are having children and that little is known about the challenges that these women face in achieving healthy pregnancies and supporting their families. Clinical care and health policy should consider new strategies that focus on the mental health of women with schizophrenia as new mothers, while optimizing healthy pregnancies and child rearing.

Behavioral Change in the Mother–Infant Dyad: Preventing Postpartum Depression

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Introduction: Depression is the most common complication of childbearing. Postpartum Depression (PPD) is significantly undertreated, and more accessible and acceptable prevention approaches are needed.
Aims: Building on data showing the profound bi–directionality of emotional/behavioral influences between mother and infant, we developed a novel intervention called PREPP (Practical Resources for Effective Postpartum Parenting). PREPP is based on the conceptualization of PPD as a potential disorder of the dyad; we aim to prevent PPD in at–risk women by promoting maternally–mediated behavioral changes in infants.
Methods: In an ongoing RCT, 3rd trimester PPD–at-risk pregnant women (n=50) are assigned to PREPP or TAU. PREPP participants undergo three sessions (coordinated with OB/GYN appointments spanning 3rd trimester to 6-weeks postpartum) focused on (1) behavioral techniques shown to increase infant nocturnal sleep and reduce fuss/cry behavior; (2) mindfulness techniques; and (3), psycho–education. TAU participants receive PPD information. Maternal symptoms are repeatedly evaluated via self–report and clinician–ratings, as is infant neurobehavior (Baby Day Diary and Bayley Scales). To characterize basic brain–behavior processes and biomarkers associated with infant behavior and behavior change, we collect heart rate and movement data from the fetus, and EEG recordings at birth and 16-weeks.
Results: By fall 2012, data on PREPP efficacy vs. TAU will be available, as will results examining pathways by which women's elicitation of infant behavioral change may be protective against PPD through (1) increased parenting efficacy and resulting diminished negative self-attributions; (2) improved sense of social support; (3) better maternal sleep; (4) more effective parenting leading to a more responsive/rewarding baby; (5) increased mother-infant attachment.
Conclusions: PREPP can have a major impact on the research and standard care of PPD because: (1) the intervention will have high rates of compliance as (a) sessions can be incorporated with usual OB/GYN visits, (b) parenting skills will appeal as a non–psychiatric intervention, (c) the approach will have face validity given the dyadic focus of the perinatal period; (2) its aim is prevention; (3) it fosters maternal and

child well-being; (4) it will expand the risk factors for PPD to include perinatal neurobehavioral markers.

4-Video Presentations

Inpatient Women in a Mother-Baby Unit and Their Carers (33 mn video)

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This video shows interveiws of women hospitalized in a Mother-Baby Unit in Brumath (Alsace), France.
Carers also report about their work in this unit and how they care for women and their children and children's fathers.
The second part of this video is described in another submission
They can be shown separably or together.
Those videos are only for professionals' use and can't be shown to a non professional public. The people on this video have all given their agreement for showing this video for professionals' use.

Women and Partners Two Years After Inpatient Treatment ith Their Infant in a Mother-Baby Unit (16 min video)

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Video of interviews of women and partners 2 years after women's inpatient treatment with their infant in a Mother-Baby Unit.
Another video presented in another submission shows women and carers during inpatient care.
Those videos are only for professionals' use and can't be shown to a non professional public. The people on this video have all given their agreement for showing this video for professionals' use.

Partners of Depressed Mothers: Viewing of the Films 'Babies Aloud'

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Viewing of the films 'Babies Aloud'
Babies aloud is a trilogy of professionally acted and edited 5 min teaching films produced by Swansea University in collaboration with the Marcé Society.
A concern for clinical professionals and clinical educators is that pregnancy, childbirth, and issues surrounding it may be seen as 'women's business', in which the part played by men is peripheral at best. These films are designed to challenge this stereotype by reinforcing the notion of a balanced parental relationship which is fundamental in helping the mother affected by postnatal depression to cope with the disorder and to make an effective recovery from it.
Each film looks at a particular aspect of this relationship, examines the particular stressors and misconceptions that can cause it to become unbalanced and proposes possible remedies.
The films were presented at the Pittsburgh Marce Society Meeting, and it is possible that they will have been seen previously by members, however, it is hoped there will be a further opportunity to view the films, and on this occasion to purchase them!
The films are not intended to positivistic, in the sense of linking specific problems with specific solutions, because often problems in postnatal depression are not well defined and overlap with the ordinary responsibilities of parenthood and child-care. Rather they are intended to stimulate a focused discussion in which possibly difficulties and possible solutions can be constructively debated.

Parenting Issues for Women with Disabilities (WWD)

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Women with physical impairment are often discouraged of experiencing their parenting project because of lack of self-esteem and/or difficulties in expressing their desires and identifying the steps to succeed. They aspire to be reassured and advised in order to help them to be more confident and thereby better anticipate this exceptional moment in their lives.
In the past and still today, many WWD have to deploy some convincing behaviors, resources to face all obstetrical, architectural environment and mental barriers on their path, and to prove to others but, above all, to themselves that there exists ways to overcome these paradigms.
The topic will explore a fulfilled life experiences in motherhood for so-called "impeded women" to offer us a new vision of women who don't want be considered as "a part" or a "superwoman" because they're pregnant. Nevertheless, they aspire to assume their pregnancy from A to Z.
These new perspectives enable us to fight against stereotypical attitudes, taboos towards WWD confronted with motherhood, by discovering a typical and encouraging structure such as the PDN Toronto, dedicated to the special needs for parents with disabilities.
Most professionals working in social and medical discipline such as obstetrical-gynecologist, midwives, almoners, care-providers, family planers, occupational and physio-therapists etc.… will develop a new "perception" towards this particular subject. I have the firm conviction that, undoubtedly, by listening to this presentation, and/or by watching some films pertinent to this matter, for instance, "Désirs d'amour" (Fr, 2001) directed by Hélène de Crécy and Philippe Pataud, may change your point of view.
When we understand that our mindset and stereotypical behavior and comprehension of the subject matter need a paradigm change, everyone will discover that one of the major obstacles towards the WWD's motherhood is a result of our prejudice coming from our individual upbringing and background which directly has an impact on our intimacy.
As a the final result, approaching this uncommon topic with open mindedness, will give everyone the tools and solutions to go ahead and accompany these women who only require some special needs and follow-up before, during and after their pregnancy.

5-Symposia

Maternal Mental Health in the Perinatal Period: Outcomes from Australian Epidemiological and Longitudinal Survey Based Studies

Chairs(s): Marie-Paule Austin (St John of God Healthcare)
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Co-authors: Deborah Loxton, Cath Chojenta, Nicole Reilly, M-P Austin

Aims: 1) using survey data to examine the biopsychosocial risk factors associated with mental health morbidity; and patterns of psychosocial assessment in these women across the perinatal period.2) using population data to examine the frequency and pattern of psychiatric admissions across the perinatal period;
Methods: The Australian Longitudinal Study on Women's Health (ALSWH) has surveyed women across 5 waves. Quantitative and qualitative methods were used to examine the impact of intimate partner abuse and reproductive loss on maternal mental health in the perinatal period. A detailed subsurvey was also administered examining the uptake of routine perinatal psychosocial assessment (recently introduced in Australia) and maternal health outcomes (N=1835 women). Linkage of the NSW Midwifery and Admitted Patient databases (Austin et al.) examined all primiparous women (delivering 2002–2004) for the period from 6 months prepregnancy, through to the second postnatal year. Timing and frequency of admissions with a psychiatric diagnosis (N=1,929) were examined.
Results: The ALSWH survey shows that both intimate partner abuse and reproductive loss impact adversely on maternal mental health outcomes. Uptake of routine psychosocial assessment has been significant in Australia, however discrepancies in the delivery of assessment across health care providers and domains of psychosocial health remain evident.
The NSW data linkage study indicates that the entire 1st postnatal year—but especially the first 4–5 postnatal months -is associated with significantly increased rates of admission for all diagnostic groups.. In contrast to previous studies, a peak RR of 16 is found for admission with both Puerperal Psychosis and Unipolar Depression. Maternal age and Caesarian section are associated with rates of admission for Unipolar depression.
Conclusion: Survey and data linkage methods complement each other in enhancing our understanding of factors that impact on patterns of, and outcomes for, maternal mental health in the perinatal period
Keywords: perinatal mental health, screening, data linkage, maternal outcomes, admission
Financial supports: BUPA Foundation, St John of God Healthcare, NHMRC Training Fellowship.

Presentation 1: Intimate Partner Abuse and Perinatal Mental Health

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Aim: To examine the impact of different types of intimate partner abuse (IPA) on women's mental health during the perinatal period.
Methods: Survey data collected from 1,835 participants who had recently given birth and who take part in the Australian Longitudinal Study on Women's Health were analysed to determine the prevalence of different types of IPA and the impact of these on self-reported depression, post natal depression (PND) and anxiety.
Results: For the 2 year period prior to the survey, 8 % of respondents reported verbal abuse, 1–2 % reported in-person and electronic harassment, respectively, 1–8 % reported experiencing different aspects of emotional abuse, 1 % reported unwanted sexual activity, and 0.2–4 % reported experiencing different forms of physical abuse. Experience of any type of IPA in the perinatal period was associated with depression, PND or anxiety, with 44 % of women experiencing IPA also reporting depression, PND or anxiety compared with 28 % of women not reporting IPA (OR 1.94, 95 % CI 1.49, 2.51). Of women reporting verbal abuse, 55 % also reported depression, PND or anxiety, compared with 29 % of women not reporting verbal abuse (OR 3.04, 95 % CI 2.17, 4.26). Women who experienced harassment were three times more likely to experience depression, PND or anxiety relative to women who did not experience this type of abuse (95 % CI 1.67, 5.58) and women who experienced emotional abuse were more likely than those who did not, to experience depression, PND or anxiety (OR 1.75, 95 % CI 1.31, 2.34). Women who experienced physical IPA were two and a half times more likely than other women to report depression, PND or anxiety (95 % CI 1.68, 3.98).
Conclusion: Intimate partner abuse experienced in the perinatal period is associated with increased risk of poor mental health outcomes.

Presentation 2: Adverse Reproductive Events and Mental Health and Parenting Outcomes.

Catherine Chojenta (Research Centre for Gender, Health and Ageing), Sheree Harris (Research Centre for Gender, Health and Ageing)
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Aim: To more closely examine the impact of adverse reproductive events (stillbirth, miscarriage, termination and ectopic pregnancy) on perinatal mental health and parenting stress. Such reproductive events can have a profound emotional and psychological impact on the individual.
Methods: Data from a sub-sample from the 1973–78 cohort of the Australian Longitudinal Study on Women's Health, collected over a 16 year period, was used. Self-report measures of mental health conditions and reproductive events were used in conjunction with the Parenting Stress Index. Open-ended qualitative comments of women who experienced adverse reproductive events were thematically analysed in order to gain a deeper insight in to the impacts of adverse reproductive events.
Results: In a sample of 1,835 participants, over 47 % of women had experienced an adverse reproductive event, with miscarriage being the most common event (35 %). While those women who had experienced an adverse event were no more likely than other women to experience depression and anxiety in subsequent pregnancies, they were significantly more likely to experience excessive worry and other emotional issues. Results from the qualitative component revealed that experience of adverse events has a long-term impact on both mood and parenting ability.
Conclusion: Adverse reproductive events have a long-term impact on parenting stress and subsequent perinatal mental health.

Presentation 3: Disparities in Reported Psychosocial Assessment During Pregnancy and the Postnatal Period: A National Survey of Women in Australia

Nicole Reilly (St John of God Perinatal and Women's Mental Health Unit), Marie-Paule Austin (St John of God Perinatal and Women's Mental Health Unit), Sheree Harris (Research Centre for Gender, Health and Ageing), Deborah Loxton (Research Centre for Gender, Health and Ageing), Cath Chojenta (Research Centre for Gender, Health and Ageing), Peta Forder (Research Centre for Gender, Health and Ageing), Jeannette Milgrom (Perinatal & Infant Research Institute)
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Background and Aims: Psychosocial assessment and depression screening is now recommended for all pregnant and postnatal women in Australia. Existing studies which have examined the extent of maternal participation in such population-based programs have been primarily concerned with depression screening (rather than a more comprehensive examination of psychosocial assessment) and have not been sufficiently inclusive of women choosing private maternity care. Whether there are disparities in equity of access to perinatal psychosocial assessment is also unknown.
Methods: A sub-sample of women (N=1804) drawn from the Australian Longitudinal Study on Women's Health participated in the study. Overall rates of assessment across five psychosocial domains (current emotional health; mental health history; current level of support; current drug or alcohol use; experience of domestic violence or abuse), as well as receipt of mental health promotion information, were examined. Logistic regression was performed to investigate whether there are socio-demographic or health system inequalities among women who are and are not assessed across each domain.
Results: A large majority of women reported being asked questions about their emotional wellbeing during pregnancy (77.8 %) and/or in the postnatal period (82.3 %). Rates decreased markedly for reported assessment of mental health history (52.9 % during pregnancy and 41.2 % postnatally). Both pregnant and postnatal women were least likely to be asked about their experience of domestic violence or abuse (in total, 35.7 % and 31.8 %, respectively). In terms of equity of access to psychosocial assessment, maternity hospital sector exerted the strongest effect across all domains of assessment in the antenatal period: women who gave birth in the public hospital sector were two to five more likely to report being assessed than women who gave birth in the private sector, independent of all other significant covariates (adjORs between 2.35 and 5.49, p<0.001). These differences were less pronounced in the postnatal period. Women from non-English speaking backgrounds and women with more than one child were also at risk of not being assessed across various domains.
Conclusion: This study provides an important insight into the reported overall uptake of and access to perinatal psychosocial assessment among a national sample of women in Australia. Opportunities to minimise the current shortfall in assessment rates, particularly in the private sector, and for ongoing monitoring of assessment activity at a national level are discussed.

Presentation 4: Psychiatric Admission in the Perinatal Period: A Data Linkage Study

Marie-Paule Austin (St John of God Perinatal and Women's Mental Health Unit), Fenglian Xu (Perinatal & Reproductive Research Unit, University of New South), Nicole Reilly (St John of God Perinatal and Women's Mental Health Unit), Lisa Hilder (Perinatal & Reproductive Research Unit, University of New South), Elizabeth Sullivan (Perinatal & Reproductive Research Unit, University of New South)
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Aims: To evaluate the temporal pattern of psychiatric admissions in primiparous women from pregnancy to the end of the second postpartum year. To identify risk factors associated with admission for Unipolar Depression postpartum.
Methods: Linkage of the NSW Midwifery and Admitted Patient databases examined all primiparous women (delivering 2002–2004) for the period noted above. Admissions with an ICD-10 psychiatric diagnosis during this time (N=1,929) were examined.
Results: The entire 1st postnatal year—but especially the first 4–5 postnatal months -is associated with a significantly increased rate of admission for all mood disorders and acute psychoses—by far the most being unipolar depression (2/100 PY). Pregnancy is associated with a reduced rate of admissions with any psychiatric diagnosis. The pattern of relative risk (RR) for admission postpartum (ie. relative to the 6 months pre-pregnancy) peaks as follows: puerperal psychoses and to a much lesser degree bipolar disorder—peak acutely during postnatal weeks 2–3; followed by a wider but discrete peak at postnatal weeks 4–8 for unipolar depression; and then a prolonged peak from 5 weeks to 16 weeks for the adjustment & anxiety disorders. Interestingly, in contrast to earlier studies, the magnitude of increased risk for admission is identical for unipolar depression and puerperal psychosis with both having a 16 times higher risk of admission within the 1st and 2nd postpartum months respectively.
An increased admission rate for unipolar depression is associated with higher maternal age and caesarian section; while decreased admission rate is associated with lower socio-economic status and country of origin.
Conclusion: Our findings support an identically elevated risk for admission with both puerperal psychosis and unipolar depression in the early postnatal weeks; a peak 2 % rate of admission with unipolar depression in the 2nd postpartum month; and elevated rates of admission with unipolar depression, adjustment and anxiety disorders persisting ot the end of the 2nd year postpartum. These findings suggest that psychosocial assessment until at least the end of the first postnatal year is an important public health activity.

Breastfeeding: Maternal and Infant Aspects (Symposium of the Turkish Group of the Marcé Society)

Chairs(s): Nazan AYDIN (Atatürk University), Oguz OMAY (Médical de La Teppe)
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Breastfeeding and the use of human milk are well recognized as optimal nutrition and immunologic protection for infants. The benefits of lactating and breastfeeding for mothers are also well documented. Several systematic reviews and other published research related to intervention programs promote breastfeeding. However, these intervention programs may not be adequate alone. Factors that interfere with lactation also should be considered. The purpose of this symposium is draw attention to delayed or insufficient lactation, which might be related with obstetric, mental and environmental factors.

Presentation 1: A Neurobiological Approach to Lactation

Nazan Aydin (Ataturk University, Medical Faculty, Psychiatry), Mehmet Dumlu Aydin (Ataturk University, Medical Faculty, Neurosurgery), Elif Oral (Ataturk University, Medical Faculty, Psychiatry), Mevlut Albayrak (Ataturk University, Pharmacy Faculty, Analytic Che), Nesrin Gursan (Ataturk University, Medical Faculty, Pathology), Ahmet Hacimuftuoglu (Ataturk University, Medical faculty, Pharmacology), Halis Suleyman (Ataturk Univeristy, Medical faculty, Pharmacology)
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A large number of studies suggest a close relationship between olfactory and affective information processing. Olfactory bulbectomized rats are used for establishing a model for depression and exploring dysfunctions in many physiological systems. Some depressed mothers may experience problems in breastfeeding, such as insufficient amount of milk production and discontinuation. Despite available studies dealing with relationship between depression and breast-feeding difficulties, the effect of depression on lactation through alterations in mammary gland structure is largely unknown. In this study, olfactory bulbectomized rats were used to determine whether depression affects mammary gland tissue. Experimental groups consisted of 3 parent stocks, each containing 5 male and 10 female adult rats. Prior to breeding period (10 week), females in each group were designed as 1) control, 2) sham-operated, and 3) bilaterally bulbectomized. After breeding period, males were removed from cages. Animals were monitored during pregnancy. Each female rat was then housed in individual cages with own offsprings after parturition and monitored for 4 weeks of lactation. At the end of the experiment, dams were decapitated for brain and mammary gland examinations. The number of parturition was 8, 6, and 5 and mean of litter was 6±2, 5±2, and 4±2 in control, sham, and bulbectomized groups, respectively. The frequency of bulbectomized rats exhibiting aggressive and non-nursing behaviors was greater than the other groups, with as higher litter mortality rate. Moreover, body weight and breast mass decreased in bulbectomized rats as compared to rats in other groups. Neurodegeneration in hippocampus, habenula, basal ganglia, salivatory nuclei, and autonomous ganglia of glands were present in bulbectomized rats. Decreased number and size in tubuloalveoalar compartments scattered obliterated lactiferous ducts were detected in mammary glands of bulbectomized rats. Data suggest that olfactory bulbectomy adversely affect reproductive and lactational status, perhaps through dysfunction of stimulus system among olfaction-brain-endocrine-secretion-limbic and reproductive organ feedback loops. In patients with depression, impaired signaling between brain and mammary gland may lead to alteration of mammary gland structure and consequently lower lactation performance.

Presentation 2: The Effects of the Delivery on Lactogenic Hormones

Aybike Pekin (Selcuk University, Selcuklu Medical Faculty, Department of Obste), Ozlem Secilmis Kerimoglu (Selcuk University, Selcuklu Medical Faculty, Department of Obste), Nasuh Utku Dogan (Selcuk University, Selcuklu Medical Faculty, Department of Obste), Arzu Setenay Yilmaz (Selcuk University, Selcuklu Medical Faculty, Department of Obste), Cetin Celik (Selcuk University, Selcuklu Medical Faculty, Department of Obste)
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Aims: We aimed to investigate the effects of birth and type of anesthesia over PRL, oxitosin, insulin, hydrocortisone levels as breastfeeding begins after caesarean section (general and regional) and vaginal delivery (epidural and spontanous).
Methods: 320 cases were caesarean sectioned (170 had regional anesthesia and 150 had general anesthesia) and 280 cases were vaginally delivered (94 had epidural analgesia). Prolactin, oxitosin, insulin, hydrocortisone levels were measured during postpartum 6–12 h, 7th day and first month.
Results: Caesarean section is associated with lower postpartum PRL levels compared with vaginal delivery. Hydrocortisone and insulin levels were not significantly different.
Conclusion: Lactogenesis generally occurs between 2 and 4 days postpartum and may be delayed until 7 to 10 postpartum days in some women. Delayed secretory activation was observed in women who had cesarean births compared to those who delivered vaginally. Caesarean section is a risk factor for successful lactation performance.

Presentation 3: The Relationship Between Mammary Gland Permeability and Factors Related to Mothers and Their Babies

Burcu Serim (Department of Child and Adolescent Psychiatry, Manisa Mental Hea), Aylin Ozbek (Department of Child and Adolescent Psychiatry, Faculty of Medici), Murat Ormen (, Department of Biochemistry, Faculty of Medicine, Dokuz Eylul U), Canem Ergin (Department of Child and Adolescent Psychiatry, Faculty of Medici), Adem Aydin (Department of Paediatrics, Faculty of Medicine, Dokuz Eylul Univ), Esra Ozer (Department of Paediatrics, Tepecik State Hospital, Izmir, Turkey), Hasan Ozkan (Department of Paediatrics, Faculty of Medicine, Dokuz Eylul Univ)
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Aims: In this study, the relationship between mammary gland permeability and the factors related to mothers and their babies were aimed to be investigated.
Method: The case group consisted of 150 consecutive healthy babies at postpartum 8–15 days. Edinburgh Postnatal Depression Scale, State and Trait Anxiety Inventory and Relationship Scale Questionnaire were applied to the mothers. Milk samples from all mothers were collected. Weights of babies at first month were recorded.
Results: In babies with higher Na concentrations and Na/K ratio in their mothers' milk, were found to gain less weight at the end of first month and also they were the first babies of the families included in the study. Mothers with higher concentrations of Na in their milk thought they were not appropriate to have a child, had poorer relationships with their own mothers, stated that they had no close friendships and had a past history of mental disorders at significance limits. The EPDS and STAI-I scores of mothers with elevated milk Na concentrations found to be higher.
Conclusion: Regarding this study's results, the risk factors causing an increase in the permeability of the mammary glands were determined as thoughts of not being suitable for motherhood, symptoms of postpartum depression and high levels of anxiety for the mothers.

Emotional Distress and Depression in the Perinatal Period- Development and Implementation of Early Intervention Programs for Mothers and Fathers in Norway

Chairs(s): Kari Slinning (National Network for Infant Mental Health, Centre for Child and)
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Norway has repeatedly ranked among the top 10 countries in the world on the Save the Children annual Mothers' Index. The top 10 countries, in general, attain very high scores for maternal and child health, education and economic status. Despite of this, the prevalence rates of postpartum depression is similar to other western countries (10–15 %). In 2006 the National Network for Infant Mental Health was established. The National Network focuses on research, education and interventions that promote good mental health and well-being in families with infants and preschool children. One of the main objectives is to provide early and effective interventions for infants and families at risk for mental health problems. This symposium will elaborate on some approaches we have chosen to identify and support vulnerable parents in the perinatal period. We describe 1). the training preparation for midwifes and health visitors in well-baby clinics and the importance of regular clinical supervision by an expert in person-centered approach, 2) a novel post graduate training program for therapists who work directly with this patient group or as clinical supervisors, 3). a web-based prevention and intervention program for new mothers and fathers, and 4). Recent research findings related to risk factors for future relationship dissolution.

Presentation 1: The implementation Process Related to the Training of Health Visitors in Well-Baby Clinics in Norway.

Kari Slinning (National Network for Infant Mental Health, Centre for Child and), Astri Lindberg (National Network for Infant Mental Health, Centre for Child and)
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One of the main objectives of the National Network for Infant Mental Health is to provide early and effective interventions for infants at risk. Because infants are totally dependent of their primary caregivers for physical and socio-emotional development it is of great importance to promote well-being and prevent depression among parents of young infants. However, there is a general problem with the identification of depression in primary care and postnatal problems are often not recognized in routine practice. Well-baby clinics in Norway are available to all and free of cost. They are frequently used by almost 100 % of parents with infants and toddlers. Thus, the well-baby clinics provide a unique arena for prevention and early intervention. The network has developed a training and implementation model and offers a package of training and supervision for health visitors and other health professionals in municipalities who have a clear defined goal to identify and support vulnerable parents in the perinatal phase. By the end of 2011 one third of all municipalities in Norway have implemented our model. Health visitors and midwifes are trained in developing their skills in assessing women and men with depressive symptoms by the administration of the Edinburgh Postanatal depression Scale (EPDS) and furthermore to deliver a person-centred approach to vulnerable parents. Clinical supervision groups are established locally to support and coach the health visitors and midwifes in their work and to make sure that parents with severe depression or other mental illnesses are referred to specialist care. There is now a clear need to develop manuals that describe in detail the important elements in this package of training and to educate more therapists who can assist in clinical supervision and offer therapy for those with severe depression. The model will be evaluated within the next year.

Presentation 2: Psychotherapy in the Perinatal Period.

Gro Vatne Brean (National Network for Infant Mental Health, Centre for Child and), Astri Lindberg (National Network for Infant Mental Health, Centre for Child and)
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Aims: The heightened vulnerability in pregnancy represents an important opportunity for facilitating change, because the women are more psychologically receptive than in their normal state. However; working as a therapist for pregnant women carries an extra challenge; not just having to have the woman's needs in focus, but also having to take care of the unborn child, and often also the father. The perinatal period evokes recognition of the therapist's own vulnerability, and working with pregnant women can challenge extensively his or her own psychological history. Affective regulation is a key component in the therapeutic approach, and the therapist needs to have specialized insight into the psychology of pregnancy and the needs of the fetus and the new-born baby. Our experience is that few psychologists, psychiatrists and other therapists have sufficient knowledge or experience to actively use pregnancy's psychological possibilities in their work, or to avoid the therapeutic pitfalls in this important period.
Methods: We have developed a novel post graduate training program for therapists engaged in this patient group; "Psychotherapy in the perinatal period". The program consists of six educational seminars per year for 2 years, each seminar lasting 2 days. Key educational subjects are: Pregnancy, developmental psychology, psychiatry, neurobiology, sexology, couples therapy and interaction, attachment, medication in pregnancy and practical and clinical intervention. We wish to create an atmosphere of confidence and curiosity towards pregnancy, so that the therapists can explore both the client's and their own vulnerability facing this period. Supervision is therefore an equally important part of the education as the theoretical foundation.
Results: The first group is starting their training in February 2012. Almost without any promotion or advertisement of the program, 20 therapists have so far applied to participate. They work in outpatient clinics, hospitals and other inpatient clinics, in children's welfare institutions or as municipal therapists. All participants report that they feel a need for this sort of training.
Conclusion: Perinatal therapeutic work necessitates specific knowledge and adequate supervision in order to actively utilize this period's psychological possibilities, and avoid its therapeutic pitfalls. Our model constitutes a possible approach.

Presentation 3: Mamma Mia; A Web-Based Preventive Program for Expecting Mothers and Fathers

S.K Braarud (National Network for Infant Mental Health, Centre for Child and), E Olsen (National Network for Infant Mental Health, Centre for Child and), Kari Slinning (National Network for Infant Mental Health, Centre for Child and), Astri Lindberg (National Network for Infant Mental Health, Centre for Child and), A Drozd (National Network for Infant Mental Health, Centre for Child and), S Haga (National Network for Infant Mental Health, Centre for Child and)
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Objective: Becoming parents represent a major transition in life and increases the vulnerability of mental health problems and partner conflicts. Prevalence rates suggest that 10–15 % of mothers experience

postpartum depression (PPD). Little is known about new father's risk for depression. At least one third of PPD start during pregnancy. Internet is among the main sources where expecting Norwegian mothers seek information about pregnancy and birth related topics. However, the quality of the information varies a lot on internet and some information provokes inappropriate fear. Recent studies have shown that interactive internet-based interventions can provide a rich, stimulating, engaging and actively supportive environment. Web—based interventions has the potential to help large groups of people at a low cost. Thus, our objective has been to develop a web-based program that provide support to new parents and prevent development of depression and severe partner conflicts in the postnatal period.

Method: A tunneled, individualized and interactive prevention and intervention program has recently been developed, one version for mothers and one for fathers. The program starts in pregnancy week 20 and ends 6 months postpartum and consists of three parts; 1). A psycho-educative component, 2) repeatedly screening of symptoms of depression with standardized feedback based on their individual responses. Participants with moderate to high symptoms of depression are offered a short web-based intervention grounded on meta-cognitive therapy. In addition they are encouraged to seek support and professional help. 3) Part three build on positive psychology to strengthen social support for the mother/father. Mamma Mia is currently being tested in a pilot study consisting of 300 mothers and fathers. A RCT will be conducted from January 2013. The main objective is to offer a high quality cost free preventive program to all expecting parents in Norway.

Results: A demo version of the program and results from the pilot study will be presented.

Presentation 4: Risk Factors for Future Relationship Dissolution: A Population-Based Study of 18,523 Couples

Gunn Mette. B Rødsand (Norwegian Institute of Public Health, Division of Mental Health), Kari Slinning (National Network for Infant Mental Health, Centre for Child and), Espen Røysamb (Norwegian Institute of Public Health, Division of Mental Health), Kristian Tambs (University of Oslo, Department of Psychology, Norway)
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Purpose: There has been a marked increase in divorce rates in most Western societies over the last 50 years. Relationship dissolution is associated with negative consequences both for adults and children, so it is important to understand the factors that impact marital stability. The first aim of this prospective study was to identify risk factors for relationship dissolution in 18,523 couples in Norway, with a particular focus on subjective relationship dissatisfaction. The second aim was to assess interaction effects between relationship dissatisfaction and other risk factors for future relationship dissolution.

Methods: Pregnant women and their partners enrolled in the Norwegian Mother and Child Cohort study completed questionnaires during the pregnancy that asked about relationship satisfaction, persistent strain, acute life events, demographics, and other risk factors. The main outcome variable was relationship dissolution in the 39-month period from the 30th week of pregnancy to 36 months after birth. Associations between the risk factors and relationship dissolution were estimated by logistic regression analysis.

Results: Except for younger age, female relationship dissatisfaction was the strongest predictor for relationship dissolution. Other factors were lower levels of education for the men, and women's persistent strain. There was a significant interaction effect between men's relationship dissatisfaction and the educational level of both sexes.

Conclusions: Dissatisfaction with the partner relationship, in particular female, is an important predictor of relationship dissolution, although other factors also affect dissolution. There are only few previous studies on relationship predictors of dissolution conducted in Europe, and the present study adds to the knowledge on the field.

Abortion and Mental Health

Chairs(s): Roch Cantwell (NHS Greater Glasgow and Clyde, UK)
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There has been much controversy over the link between induced abortion and mental health. This symposium will present new research and syntheses of the literature to date, and discuss implications for services and professionals involved in the care of women who undergo induced abortion.

Childbearing, Abortion and Mental Health—Exploring the Comparative Risks

Ian Jones (Cardiff University, UK), Trine Munk-Olsen (Aarhus University, Denmark)
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The link between childbearing and severe mental illness is well-established, in contrast to the understanding of effects of induced abortion. Evidence on risks associated with childbirth will be described alongside the results of two population based cohort studies using Danish population registers which examined the risk of first-episode and recurrence of mental disorder before and after first trimester induced abortion.

Presentation 1 and 2: Abortion and Mental Health Review—Part 1

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Part 2

Tim Kendall (National Collaborating Centre for Mental Health, UK)
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Most of abortions carried out in the UK and commonwealth countries are undertaken on the grounds that continuing with the pregnancy would risk physical and/or psychological harm to the woman or child. However, there has been some concern in recent years that abortion itself may lead to an increased psychological risk and negatively affect the woman's mental health. Indeed, two recent meta-analyses undertaken by Coleman (2011) and Fergusson (2012) have claimed that abortion leads to a deterioration in mental health.

Neither of these meta-analyses was done systematically, nor did they comprehensively review the field of abortion and mental health in terms of prevalence and factors associated with a poor outcome. Two previous reviews conducted by the American Psychological Association (2008) and Charles and Colleagues (2009) concluded that the mental health outcomes following an unwanted pregnancy are very similar whether the woman gives birth or has an abortion. One of these was comprehensive but not systematic; the other was systematic but

not comprehensive. We undertook a comprehensive and systematic review of the associations between abortion and mental health and concluded that there may well be an increased mental health risk with an unwanted pregnancy, but that this risk is unchanged by going to abortion or giving birth. Meta-analysis is particularly susceptible to bias in this area. The physical health outcomes for women with an unwanted pregnancy have improved greatly by making abortion legal. To further improve the mental health outcomes associated with an unwanted pregnancy we should focus practice and research on the individual needs of women with an unwanted pregnancy, rather than how the pregnancy is resolved.

Presentation 3: Induced Abortion—What is the Role of Mental Health Services?

Roch Cantwell (NHS Greater Glasgow and Clyde, UK)
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A synthesis of evidence to date suggests that there is no direct relationship between induced abortion and poor mental health. Some groups, including those with prior mental ill health, may be at increased risk, although the risk appears more associated with the pregnancy being unwanted than with its eventual outcome. Mental health workers may be asked to assess women who intend to proceed to induced abortion of an unwanted pregnancy, and some jurisdictions allow for the mental health consequences of pregnancy to be considered in the assessment of justification for abortion. It has also been suggested that women considering abortion should receive counselling about potential adverse effects. Whether there should there be a role for mental health professionals in this area will be discussed in the light of conclusions from a recent systematic review.

Establishing a Sustainable Perinatal and Infant Mental Health Service: Where to Begin and what to do Next

Chairs(s): Bryanne Barnett (St John of God Health Care, Australia)
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For some 30 years Australia has been pro-active in developing very early intervention programs in mental health to lay the foundation for life-long health and wellbeing for future generations. After initial emphasis on research and clinical work on postnatal depression, the importance of antenatal identification of depression, along with anxiety and related vulnerabilities, was recognised, as well as the imperative of addressing these promptly and effectively. Plans for appropriate training of the relevant workforce in psychosocial assessment including depression screening were devised and implemented in several States (cf www.beyondblue.org.au)

To achieve the stated goal, however, it was necessary to ensure that a range of interventions by primary, secondary and tertiary health and other services was available and included the expertise required. In New South Wales, where there are no public psychiatric mother-baby inpatient facilities, a model of care was devised to gather and enhance available expertise into a network or virtual team, and fill the main gap in services with a secondary highly specialised mental health centre as the hub. The model aims to identify and manage illness in parents, support the family, and manage long-standing conditions that undermine parenting confidence and capacity. To cover the significant developmental stages for parents and infants, the service covers the period from conception to when the index child reaches 4 years of age.

Translating research into reality-based clinical practice is never simple. Establishment of this collaborative, integrated network will be discussed, including relevant governance, evaluation and sustainability aspects, and the many inevitable and recurrent challenges to be overcome. Case material will be offered to illustrate the model.

Presentation 1: Enhancing Perinatal Care: Development of Suitable Models

Michelle Ellen Haling (St John of God Health Care, NSW, Australia)
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Discussion will focus on processes from the vision to the constraints of likely local resources. Modes of initial and ongoing consultation with relevant stakeholders, including consumers, health and other services, to create a collaborative environment will be described. From this, a model is generated with general principles that might be modified to suit a variety of settings, such as rural, urban, differing socio-economic strata, public and private health systems. The strategic underpinnings of a potential model will be discussed.

Presentation 2: From the Model to an Established Service: Achievements and Challenges

Maya Elisabeth Drum (St John of God Health Care, NSW, Australia)
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The process from conception of the model to operational reality of an established service is not a simple matter. This presentation will include; listing and prioritising objectives; allocating tasks; considering resources, both human and financial; referral and intake procedures; composition of the immediate team and wider network. Key issues such as appropriate staff qualifications, clinical governance, provision of training within and beyond the clinic; data collection, analysis and reporting, and the inevitable resistances encountered, will be discussed. Data from the previous two past years at the Raphael Centre will be shown.

Presentation 3: Illustrative Case Studies

Julie Margaret Ferguson (St John of God Health Care, NSW, Australia)
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Two case studies will be presented to illustrate the model of care and how clients and their families reach the service. The first will be an antenatal case referred early in pregnancy identified as 'at risk of developing postnatal depression'. The second, a postnatal case where the client slipped through the net of early identification, was eventually referred to the clinic by the acute mental health service. Both women had significant mental illness in their past histories, with early relational trauma. In both cases the referrals were for potential PND, which was merely the tip of the iceberg of what unfolded.

Innovations in Prevention of Perinatal Depression

Chairs(s): Michael O'Hara (University of Iowa)
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Aims: Depression during the perinatal period is a prevalent problem with adverse impacts. Prevention of perinatal depression may avert the risks associated with untreated and pharmacologically-treated depression. Despite potential short and long-term benefits for women and their offspring, research into prevention strategies for perinatal women is in its nascent stages. The current symposium aims to present data detailing psychosocial preventive interventions.
Methods: Michael O'Hara will chair this symposium. Milgrom will discuss Web-based cognitive behavioural therapy for postnatal depression. Felder will present data examining the ways MBCT may achieve clinical benefit in perinatal women. Tandon will present longitudinal data from a perinatal depression prevention intervention conducted in home visitation programs. Lara will present data on sexual abuse as a risk factor for perinatal depression and anxiety, and discuss implications for prevention.
Results: Results presented by Dimidjian suggest feasibility, high satisfaction with the intervention, and positive outcomes in depressive severity, stress, and social support in an MBCT intervention. Data presented by Felder from the same trial demonstrate acute changes in mindfulness and decentering over the course of the intervention, and analyses are currently underway to examine the relationship of these variables to time to relapse and duration of episode. Tandon will present results demonstrating the positive effects of a 6-week group cognitive behavioral intervention on relapse rates and depressive symptoms compared to a usual care intervention. Lara will present data from a Mexican sample demonstrating a high proportion of sexual abuse, which correlated significantly with postnatal depression and anxiety, and will discuss implications for preventive efforts.
Conclusion: Perinatal women are of particular interest given that many with a history of depression relapse during pregnancy or postpartum, and are reluctant to use pharmacologic antidepressant treatment while pregnant or nursing. Therefore, it is critical to identify risk factors, such as history of sexual abuse or previous depression, and examine targeted prevention approaches. Doing so could prevent problems with relapse, and maintain large numbers of women in healthy states, at great social and economic benefit to society.

Presentation 1: Web-Based Cognitive Behavioural Therapy for Postnatal Depression

Jeannette Milgrom (Parent-Infant Research Institute, Austin Health; Univ Melbour), Brian Danaher (Oregon Research Institute, USA), Charlene Schembri (Parent-Infant Research Institute, Austin Health, Australia), John Seeley (Oregon Research Institute, USA), Jennifer Ericksen (Parent-Infant Research Institute, Austin Health, Australia), Alan Gemmill (Parent-Infant Research Institute, Austin Health, Australia), Peter Lewinsohn (Oregon Research Institute, USA), Scott Stuart (University of Iowa, USA)
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Aims: Although symptoms of depression have been shown to be reduced through internet interventions, no research has examined the efficacy of internet-based treatment of postnatal depression (PND). This is despite the potential for treatment uptake and accessibility, and the necessity of addressing the unique needs of depressed perinatal women, including infant and partner difficulties. We aimed to develop and test an internet intervention for PND.
Methods: Development was an iterative process (culminating in systematic usability testing). We began by surveying women on the acceptability/desirability of internet intervention for PND, preferred content, and perceived benefits and barriers to use. Next, we conducted formative research using focus groups with postpartum women to adapt the content, structure, and design of the successful Getting Ahead of Postnatal Depression intervention. The final phase of development was systematic usability testing. Once functioning program components were created, 22 participants in Australia and the USA were recruited to a "think-aloud" procedure to test user-system interactions. Measures included the System Usability Scale (SUS). The resulting MumMoodBooster intervention was then evaluated in a feasibility trial with $n=25$ women, and included low level telephone support.
Results: As will be described, the final MumMoodBooster intervention embodies the key Cognitive Behavioural Therapy elements that have been found to be effective in our PND face-to-face intervention as well as a library of partner and infant modules, a web forum and telephone support. Focus group participant comments were overwhelmingly positive: e.g., "really hopeful, like you can do something about it," and "wonderful because you can do it at home." SUS results showed MumMoodBooster to have excellent usability. Preliminary results from the feasibility trial ($n=25$) show good program engagement and treatment effectiveness in alleviating depression.
Conclusion: An internet program for PND has proven highly acceptable to women and has been shown to have excellent usability. At completion of the feasibility trial we plan is to conduct a RCT of this fully functional and fully pilot tested internet intervention. Comparability to face-to-face treatment and purely self-guided delivery are topical issues.

Presentation 2: Preventing Perinatal Depression Among Low-Income Women Enrolled in Home Visitation

S. Darius Tandon (Johns Hopkins University School of Medicine), Julie Leis (Johns Hopkins University School of Medicine), Tamar Mendelson (Johns Hopkins Bloomberg School of Public Health), Deborah Perry (Georgetown University), Karen Edwards (Johns Hopkins University School of Medicine)
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Aims: To assess the efficacy of a 6-week group cognitive behavioral intervention (the Mothers and Babies Course; MB) in preventing the onset of perinatal depression and reducing depressive symptoms among low-income women enrolled in home visitation programs.
Methods: 188 women enrolled at four home visitation programs were screened for eligibility (score>16 on the Center for Epidemiologic Studies Depression Scale and/or a lifetime depressive episode but no current depressive episode). Eligible women were randomly assigned to intervention or usual care conditions. The final sample contained 78 women; depressive episodes and depressive symptoms were assessed at 1-week post-intervention and 3- and 6-month follow-ups.
Results: At 6 months post-intervention, 11 of 34 (32.4 %) women receiving usual care were assessed as having a depressive episode compared with 6 of 41 (14.6 %) women receiving the MB Course (x2=3.33, $p=.07$). Depressive symptoms declined at a significantly greater rate for intervention participants than usual care participants between baseline and 1-week (coefficient=−6.07; $z=-2.96$; $p<0.01$), 3 months (coefficient =−5.91; $z=-2.87$; $p<0.01$), and 6 months (coefficient=−6.94; $z=-3.35$; $p<0.001$) post-intervention.
Conclusion: Home visitation programs for at-risk mothers and their infants have proliferated in recent years making home visitation one of

the largest avenues through which perinatal women come to the attention of service providers. This is the first study aimed at preventing perinatal depression among home visitation clients; previous studies in home visitation have focused on treatment. Home visiting clients who participated in our intervention had greater reductions in depressive symptoms across every assessment period, with the largest magnitude of effect occurring at 6 months follow up. As compared with the usual care condition, intervention participants also had fewer depressive episodes at 6-month follow up than women in the usual care condition. These findings suggest that home visiting is a promising setting in which to conduct further perinatal depression preventive interventions.

Presentation 3: Sexual Abuse Before Age 17: A Risk Factor for Postnatal Depression, Anxiety, and Low Self-Esteem, Maternal Attachment, and Self-Efficacy: Implications for Prevention

M. Asunción Lara (Instituto Nacional de Psiquiatria,Mexico), Laura Navarrete (Instituto Nacional de Psiquiatria,Mexico), Ma. Eugenia Gómez (Instituto Nacional de Perinatología)
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Aims: Childhood/adolescent experience of sexual abuse (SA) deeply affects women's lives and is associated with diverse mental disorders. Its impact on maternal mental health has not been sufficiently explored, but studies suggest that SA increases risk for postnatal depression (PND), anxiety, and life stress, and may be deleterious to the mother-child relationship. SA and PND are found in diverse cultures, with adverse effects on the health of mother. This study explores the extent of SA before age 17 in perinatal women and analyzes its relation to PND, anxiety, self-esteem, and postnatal maternal attachment and self-efficacy.
Methods: In this secondary data analysis, 156 women were interviewed during pregnancy and at 6 weeks (PP1) and 6 months (PP2) postpartum. Respondents were chosen from those who received prenatal care for depressive symptoms and/or a previous history of depression at three health facilities in Mexico City. Biserial correlation coefficients were obtained between SA and the individual variables and a model was tested to explore the impact of SA on the combination of variables, controlling for mediating factors: history of depression, social support, and partner relationship (MANCOVA).
Results: Sexual abuse (CECA.Q) was found in 34.6 % of the sample. Significant correlations were found between SA and PND (BDI-II), anxiety (SCL-90), self-esteem (Coopersmith), and maternal attachment (MPA) in both PP1 and PP2, and maternal self-efficacy (MSEQ) only in PP2. The model tested was significant (F=220; $p \leq 0.00$), showing that SA had an impact on most of the variables studied, apart from anxiety (PP1) and MSEQ (PP1 and PP2).
Conclusion: Sexual abuse was experienced by a high proportion of perinatal women screened for risk of depression; this experience had a significant influence on PND, anxiety, self-esteem, and maternal attachment. PND, anxiety, and parental feelings of attachment are related to child behavioral and cognitive difficulties and later infant attachment behavior. In order to reduce the adverse mental health effects of SA, prevention interventions for PND need to incorporate: a) screening not only for perinatal depression but also for SA; and b) strategies to approach sexual abuse sequel within psychosocial interventions for depression.

Presentation 4: Mindfulness Based Cognitive Therapy for the Prevention of Perinatal Depression: Initial Findings

Sona Dimidjian (University of Colorado Boulder, United States of America), Sherryl D. Goodman (Emory University), Jennifer N. Felder (University of Colorado, Boulder), Robert Gallop (West Chester University)
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Aims: Depression during pregnancy and the postpartum is a prevalent problem that can have enduring adverse consequences for women and their children. The clear benefit of averting such outcomes underscores the potential value of preventive interventions during pregnancy, and the limitations of extant prevention models make developing novel prevention approaches particularly important. Mindfulness-Based Cognitive Therapy (MBCT) has been found to significantly reduce rates of relapse of recurrent depression among general adult samples and has high relevance to the prevention of perinatal depression. MBCT provides an important alternative to both pharmacological intervention and traditional one-on-one individual psychotherapy models. It also is based on a clear conceptual and empirical relationship between the specific intervention strategies and the most robust risk factor for perinatal depression, namely depressive history.
Method: A two site treatment development study was implemented in order to develop and test MBCT adapted to prevent depressive relapse among pregnant women at high risk for perinatal depression, with risk based on previous history of depression. The intervention was implemented in the obstetrics clinics of a large HMO in Colorado and Georgia across two recruitment phases (an open trial and a randomized controlled comparison again treatment as usual).
Results: Among the final sample for the open trial study (N=49), results support the feasibility of both recruiting and retaining at risk pregnant women in the intervention, and positive outcomes are evident on outcomes such as depressive severity, stress, and social support. Participants also report high satisfaction with the intervention. Preliminary data from the RCT (N=75) also will be presented.
Conclusion: The adaptation of MBCT for perinatal depression is a novel and promising strategy for the prevention of perinatal depression.

Presentation 5: How Might Mindfulness Based Cognitive Therapy Help Prevent Perinatal Depression: The Role of Mindfulness, Decentering, and Rumination

Jennifer N. Felder (University of Colorado, Boulder), Sona Dimidjian (University of Colorado Boulder, United States of America), Sherryl D. Goodman (University of Colorado, Boulder), Robert Gallop (West Chester University)
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Aims: Research suggests that Mindfulness Based Cognitive Therapy may be a feasible, acceptable, and effective prevention intervention for perinatal women at high risk for depression relapse. MBCT aims to alter one's automatic and reactive relationship to the thoughts, feelings, and sensations that may precipitate relapse. Although six large randomized clinical trials support the efficacy of MBCT among individuals with highly recurrent depression, few studies have examined the ways in which MBCT may achieve clinical benefit. Our study takes a first step toward asking this question for perinatal women.

Understanding such processes can lead to a better understanding of the mechanisms of treatment and a more targeted, robust prevention approach for perinatal women

Methods: The current study examined whether participation in the open trial phase of an MBCT intervention tailored for pregnant women (n=49) is associated with changes in processes that have been associated with vulnerability to relapse in prior work. Specifically, we investigated whether self-reported rumination, decentering, and mindfulness scores changed over the course of the intervention, and whether post-intervention scores predicted depression relapse.*

Results: As predicted, both decentering and mindfulness scores significantly increased over the course of the 8-week intervention. However, there was no evidence of significant improvement in rumination over the course of the intervention. Post-intervention rumination, decentering, and mindfulness scores were not associated with a categorical measure of depression relapse through 6 months postpartum; however, we also will present findings from analyses that are currently underway that examine the relationship of time to relapse and duration of episode

Conclusion: MBCT alters the nature of the relationship to one's thoughts and emotions; however the degree of impact of such changes to relapse prevention among at risk perinatal women demands further study. Such research is needed to elucidate mechanisms of treatment with the ultimate goal of developing interventions that are robust and targeted for perinatal women.

Novel Collaborative Models to Accelerate the Public Health Impact of Perinatal Mental Health Efforts

Chairs(s): Heather Flynn (Florida State University)
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This symposium will highlight three innovative models of working together which have the potential to substantially speed the public health impact of perinatal mental health efforts. Recently, funding agencies, researchers, and organizations have converged on the notion that promising advances in clinical care and research have not translated into reduced prevalence and burden of diseases and disorders. This is certainly the case in the field perinatal mental health. Novel models to accelerate efforts to improve mental health outcomes around the time of childbearing are critical given the documented global health burden and potential for prevention of poor outcomes in early childhood. In order to address this, researchers, clinicians, community members and organizations must work together in new ways. Three such models will be presented here. First, Dr. Flynn will present the work of the National Women and Mood Disorders (W&MD) network. The W&MD includes 35 members from 22 academic sites the US and has begun to create systems and processes to allow diverse researchers to collaborate. Data on a large data pooling project addressing health disparities in perinatal depression and treatment will be presented, as will projects aiming to conduct prospective data collection using common assessments nationally. Dr. Samantha Meltzer-Brody will present information on the International Perinatal Psychiatry Genetics Consortium aimed to accelerate the progress on discovering causes of postpartum depression through international cooperation. Third, Dr. Laura Miller will discuss clinical care models which have integrated behavioral and medical health care for perinatal mental health, aimed to drastically improve detection, treatment, and an array of clinical and functioning outcomes. Finally, Dr. Katherine Wisner will serve as discussant and will speak about facilitating the dissemination of novel collaborative models to accelerate the public health impact on perinatal mental health.

Presentation 1: A National Women and Mood Disorders Network: A Collaborative Model for Perinatal Mental Health Research

Heather Flynn (Florida State University), Scott Stuart (University of Iowa), Sherryl Goodman (Emory University), Robert Ammerman (University of Cincinnati), Nancy Grote (University of Washington), Cynthia Battle (Brown University), Cathie Spino (University of Michigan)
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Aims: The Women and Mood Disorders (W&MD) Task Group, established in 2009, is a network within the National Network of Depression Centers (NNDC) in the US. Our mission is to capitalize on the strengths of a collaborative network to impact the prevalence and burden of depression in women throughout the lifespan and to better understand sex differences by advancing research, clinical care, education and public policy. The W&MD consists of 32 members from 22 academic institutions across the US. This presentation will provide an update of the group's accomplishments including successful group processes, systems and infrastructure that may be replicated by other collaborative groups.

Methods: Current projects of W&MD focus on building interdisciplinary collaborative capacity to advance the field of Perinatal Mental Health. Research foci are driven by key questions in the field that may be addressed by the collective expertise and strengths of the group. A data pooling project aimed at determining health disparities in perinatal depression prevalence, course, treatment use and research participation is underway. Six W&MD member institutions 14 individual databases have been pooled in order to address these scientific aims and to establish group collaboration. We are also implementing a multi-site standard assessment tool.

Results: Results of the multi-site health disparities project will be presented. The final pooled dataset has increased the sample size from 5,000 in the largest study at screening to a combined screening sample of 30,000, and from 275 in the largest study at perinatal longitudinal follow up to over 1,000 perinatal women with longitudinal data. We will also present initiation of a standard assessment of perinatal depression and related co-morbidities across several national, diverse sites including psychiatry, primary care, obstetrics, pediatrics and community settings.

Conclusion: The goal of W&MD is to advance the field by working in clinical, policy and education/outreach domains that similarly capitalize on the collective strengths of the group in a feasible, stepped process. The Task Group will strive to be a nationally recognized expert group in all aspects of women and depression and will serve the community through education, research and improvements in clinical care.

Presentation 2: The Development of an International Perinatal Psychiatry Genetics Consortium

Samantha Meltzer-Brody (University of North Carolina), David Rubinow (University of North Carolina), Ian Jones (Cardiff university), Zachary Stowe (Emory University), Peter Schmidt (NIH), Katherine Wisner (University of Pittsburgh), Patrick Sullivan (University of North Carolina)
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Aims: The PACT (Postpartum Depression: Action Towards Causes and Treatment) Perinatal Psychiatry Genetics Consortium was formed in October 2010 following an open meeting at the Marce Society Conference in Pittsburgh. The impetus for the creation of PACT was the strong belief in a common goal—that the identification of the markers of susceptibility to PPD could only be achieved by working together on a large-scale collaborative effort. Our long-term goal is to develop an international consortium with the mission of rapid progress toward elucidating the causes of postpartum psychiatric illness. This will require a sustained commitment, continuing collaborative effort and the support of both public and private sources.
Methods: Borrowing from the principles used by the highly successful Psychiatric Genomics Consortium, PACT is a democratic and inclusive consortium open to all interested collaborators who agree to the operating principles established by the consortium. All effort is donated, and there are no entry fees. To date, PACT has identified ~20 international sites that are interested in participation. The PACT memorandum of understanding details intellectual property, authorship, and other important rules of conduct. Committees have been established including coordinating, phenotyping and fundraising committees. Currently, PACT is focused on four critical short term goals: 1) to finalize operational definitions for cases, controls and quality standards, 2) establish harmonization of common elements, core sets of measures, and collection of samples across sites (includes DNA sampling and biobanking), 3) determination of high-priority biomarkers to genotype, and 4) developing a functional biobank.
Results: We will present the process by which PACT was developed and discuss the critical steps taken to form the consortium. We will present data on the demographics of PACT members and discuss findings regarding operational definitions, harmonization of common elements and measures across sites, and the process for determining priority biomarkers.
Conclusion: We are convinced that the advantages of establishing a Perinatal Psychiatry Genetics Consortium far outweigh any potential obstacles. PACT represents an important next step toward disentangling the pathophysiology of PPD.

Presentation 3: Integrated Models of Perinatal Mental Health Care

Laura Miller (Harvard Medical School)
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Aims: The use of validated depression screening tools can substantially improve detection of perinatal depression. Unfortunately, most studies to date have not demonstrated that screening efforts lead to improved outcomes for women or their offspring. It is posited that a key reason for this is fragmentation of the service delivery pathway, such that many women who screen positive never get clinically assessed for depression, and many women who get assessed and diagnosed never enter treatment. In primary care settings, extensive research on models that integrate mental health care services with medical care delivery shows that such models improve psychiatric outcomes, medical outcomes, and patient satisfaction. This portion of the symposium aims to review and discuss specific models of integrating mental health care into perinatal care settings.
Methods: Studies of co-located, embedded, stepped care, collaborative care, and consultative models that integrate mental health care with perinatal care will be reviewed and summarized. We will focus on the feasibility of such models and on the impact of integration on treatment entry for women with perinatal depression.
Results: Models employing integrative principles such as stepped care, collaborative care and embedding are feasible to implement within perinatal care settings. Such models may substantially improve treatment entry.
Conclusion: Various integration strategies can be combined into cohesive models that can be implemented in perinatal care settings. This demonstrably improves treatment entry. The ultimate effects on clinical and functional outcomes, quality of life, prognosis, offspring health and health care costs remain to be determined.

Pregnancy, Mental Illness, Interventions and Outcome: Implications for Clinical Practice

Chairs(s): Megan Galbally (Mercy Hospital For Women)
Symposium Title: Pregnancy, Mental Illness, Interventions and Outcome: implications for clinical practice
Email: mgalbally@mercy.com.au

Aims: This symposium will examine interventions and child outcomes for both depression and borderline personality disorder in pregnancy. There is an overlap between these two conditions with women with borderline personality disorder at increased risk of developing depression across the perinatal period. The three key mental health components of care in pregnancy are identification of mental illness, balancing the risks and benefits of treatments for mother and foetus, and consideration of the impact on the future child's development of effective management of antenatal mental illness. This symposium will place our current knowledge on depression and borderline personality disorder in pregnancy in this clinical context and make recommendations for future research.
Methods: The first two papers will discuss the risks and understanding of the effects of depression and borderline personality disorder respectively in pregnancy and in particular the known effects on child developmental outcomes. These papers will also present specific data collected in Australia relevant to this topic. The subsequent two papers will then cover the treatment options for depression in pregnancy-psychological therapy and pharmacological antidepressants. They will cover the knowledge to date on these treatments in the antenatal setting and in particular on child developmental outcomes.
Results: Both maternal Borderline Personality Disorder and untreated depression may have an adverse impact on child developmental outcomes. There is more limited data available on child developmental outcomes associated with both psychological and pharmacological treatments for depression. There is even less information on effects of management of borderline personality disorder in pregnancy on outcomes for their children.
Conclusion: Management of maternal mental illness in pregnancy is of paramount importance for both mother and child. However, our understanding of the risks and benefits for children of the available treatments and recommendations is limited. Further research on proposed models of care and interventions in pregnancy requires a focus on the longer term implications for child development to elucidate the risk/benefits for mother and child.

Presentation 1: Maternal Depression, Fetal Exposures and Child Developmental Outcomes: Findings from the Longitudinal Study of Australian Children

Andrew Lewis (Deakin University), Megan Galbally (Mercy Hospital for Women), Catherine Bailey (Deakin University), Tara Gannon (Deakin University)
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Aims: There is evidence to suggest that untreated maternal mental illness in pregnancy can have detrimental effects on longer term child outcomes. This paper will examine the evidence and possible mechanisms for maternal depression and stress through a systematic review and data from a population study.
Methods: A systematic review of maternal depression and child developmental outcomes will be presented. This paper will also provide an overview of several investigations of a range of fetal exposures on child developmental outcomes using data from the Longitudinal Study of Australian Children (LSAC): a nationally representative study of the growth and development of children in Australia (n=3824).
Exposures include maternal depression (K6), stressful life events and exposure to antidepressant medications. Outcomes examined include birth outcomes, child internalising and externalising symptoms (SDQ), child motor (PEDS) and cognitive development at 4–5 and 6–7 years of age. We will also present prevalence data on anti-depressant exposure in the Australian population.
Results: Findings include further evidence of the impact of maternal depression, stress and antidepressant exposure on birth and child development, showing a different pattern for the effects of maternal antenatal depression. We also found that child behavioural problems were independently predicted by maternal stress, after adjustment for postnatal stressors.
Conclusions: Maternal stress, maternal depression and antidepressant exposure were all found to have possible effects yet distinct effects on child development. These findings will be discussed in terms of fetal programming effects and the Developmental Origins of Health and Disease

Presentation 2: Borderline Personality Disorder and the Perinatal Period: Models of Care and Child Outcomes

Gaynor Blankley (Mercy Hospital for Women), Megan Galbally (Mercy Hospital for Women), Martien Snellen (Mercy Hospital for Women)
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Aims: This paper will present a systematic review of the literature on borderline personality disorder and pregnancy including management guidelines, interventions and offspring outcomes. The aims of the paper are firstly to review the literature for the management of Borderline Personality Disorder (BPD) across the perinatal period and secondly to conduct a retrospective study of clinical files in order to obtain the supporting evidence to develop guidelines for management of BPD across pregnancy and the postpartum. In addition this paper will specifically examine the literature available on borderline personality disorder in pregnancy and child developmental outcomes.
Methods: A literature search and review was conducted using a computerized search of electronic databases Medline, EMBASE and psych info to find original research, published reviews and guidelines for:
• description of the issues, course and outcomes of women with BPD during the perinatal period;
• BPD and parenting, infants and children and their outcomes;
• the management of BPD in the perinatal period;
• interventions for women with BPD and early parenting;
• tempirical based therapies developed and trialled for adult patients with BPD.
Presented will also be retrospective qualitative and quantitative data from 47 clinical cases was reviewed, looking for themes and issues that supported and illustrated the guidelines being developed.
Results: Borderline Personality Disorder (BPD) is a serious mental illness with a lifetime prevalence of 6 % that is associated with significant co morbidity. There is a significant body of literature that describes the issues that women with BPD have as parents as well as literature describing the developmental issues for their infants. However, there is no research to date describing or quantifying the issues these women have across the perinatal period, from preconception to postpartum. The data obtained from the clinical files supported the need to develop clinical guidelines for the management of BPD across the perinatal period.
Conclusions: Borderline Personality Disorder is a serious psychiatric condition associated with considerable psychosocial impairment and comorbidity. It carries specific risks for the mother and infant across the perinatal period and requires the development, implementation and evaluation of specific management guidelines.

Presentation 3: Antenatal Depression (AND): Impact and Evidence-Based Psychological Treatment

Jeannette Milgrom (Parent Infant Research Institute, Austin Health), Chalene Schembri (Parent Infant Research Institute, Austin Health), Jennifer Ericksen (Parent Infant Research Institute, Austin Health), Jessica Ross (Parent Infant Research Institute, Austin Health),
Christopher Holt (Parent Infant Research Institute, Austin Health)
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Aims: The prevalence of Antenatal Depression (AND) is estimated at 10 % in each trimester of pregnancy and has a profound impact on maternal well-being, health and a long-term effect on infant neurodevelopment.
We review the impact of AND and the paucity of evidence-based psychological treatments. A specific treatment for AND (8 sessions) is described (Beating the Blues before Birth—BBB). This adapts a best practice cognitive-behavioural therapy PND program.
Methods: The AND treatment literature will be reviewed followed by results of a pilot RCT of BBB in group format and an uncontrolled pilot in individual format.
Initial results of a full RCT of an individualized format comparing BBB treatment with routine care for both maternal and infant outcomes will be described (n=100 women meeting diagnostic criteria for depression in pregnancy, trial currently ongoing).
Results: Women with AND have been reported by others to be notoriously difficult to retain. Similarly, in our pilot RCT, only 28 % of eligible women took up treatment. Reasons for non-uptake (n=115) will be described. Group treatment also proved impracticable for many women who were therefore treated in an uncontrolled individual treatment pilot study.
Group Treatment Pilot (n=23)
Baseline depression scores were in the severe range. After treatment, a trend towards lower depression and anxiety scores and increased social support levels emerged in the intervention group.
Individual Treatment Pilot (n=26)
Individual therapy resulted in significant lowering of depression (p<.005) and anxiety (p=.002) scores, and increase in social support (p=.04). These findings are clinically significant representing a drop from the severe to the mild range following treatment. Anxiety scores were also decreased from the moderate range to the mild range.
Treatment gains were maintained over the first 12 months postpartum between post-treatment and 12 months post-birth. Feedback from participants was overwhelmingly positive.

Conclusions: Tailored psychological treatments for AND are scarce. Beating the Blues before Birth has potential as an effective treatment for AND and anxiety. Individual therapy appears to be more acceptable and feasible during pregnancy than group therapy. A full RCT in individual format is well progressed.
Keywords: antenatal depression, treatment, CBT

Presentation 4: Maternal Antidepressant Treatment in Pregnancy and Child Developmental Outcomes

Megan Galbally (Mercy Hospital for Women), Andrew Lewis (Deakin University), Salvatore Gentile (Department of Mental Health, ASL Salerno Italy), Anne Buist (University of Melbourne)
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Aims: As the evidence for detrimental effects of untreated maternal depression mounts there is a corresponding increase in prescription of antidepressants treatment. However the investigation of longer term neurodevelopmental outcomes for children following exposure to antidepressants is limited and results have been conflicting. The aim of this paper is to examine the developmental outcomes in children exposed to antidepressants in utero through a systematic review of the literature and presentation of the latest findings from the Victorian Psychotropic Registry (VPR).
Methods: This paper will present a systematic review of published literature between January, 1973 and February, 2012. In addition findings will be presented of a prospective, longitudinal study, the Victorian Psychotropic Registry (VPR), which has followed children from pregnancy to 4 years of age exposed to antidepressants in utero and a matched control group . The objective of the study was to investigate the effects of maternal use of antidepressants during pregnancy on birth outcomes, neurodevelopment at 18 months of age assessed using the Bayley Scales of Infant Development and at 4 years of age using the Wechsler Preschool and Primary Scales of Intelligence (WPPSI), Movement ABC and Child Behaviour Checklist (CBCL).
Results: The systematic review has identified four studies which found effects of antidepressant exposure on motor development. Moreover, the VPR found children exposed to antidepressant medication in pregnancy scored lower on motor subscales in particular on fine motor scores than non-exposed children. Due to lack of power these findings did not reach conventional criteria for statistical significance. These findings at 18 months of age will be compared to those at 4 years of age as measured by the WPPSI, Movement ABC and CBCL from the VPR.
Conclusions: Both the systematic review and the specific findings for the VPR study are inconclusive as to the risks of antenatal antidepressants exposure on child developmental outcomes. These findings will be discussed in terms of their clinical relevance to debates concerning the risks and benefits of pharmacological treatment in pregnancy. This paper will conclude with a discussion of future research to clarify neurodevelopmental effects of antidepressants exposure and balancing this with known effects of depression on child development.

The Ottawa Maternal Wellness Project: An Evolution of Accessible and Attachment-Based Perinatal Mental Health Services in Canada's National Capital Region

Chairs(s): Jasmine Gandhi (The Ottawa Hospital)
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This symposium tracks the development of the Ottawa Regional Perinatal Mental Health Program, aka. "The Ottawa Maternal Wellness Project". This initiative seeks to implement international guidelines and best practices in the care of pregnant and postpartum women who develop mental health disorders in a locally relevant fashion.
The proposed model of perinatal mental healthcare consists of a universal screening procedure and corresponding protocols for care under a comprehensive and coordinated interdisciplinary network. This model of care aims to (1) overcome various barriers to knowledge translation; (2) optimise allocation and coordination of health human resources; (3) promote full scope of practice and interdisciplinary care; (4) improve women's access to the best possible care closest to home; (5) support health promotion and illness prevention for women and their infants; (6) minimise inequities across the system. Results from this initiative aim to inform local and provincial policy makers in health planning decisions regarding perinatal mental healthcare for the region.
The Project uses a staged process to develop and implement the proposed model of care by focusing on problem identification, knowledge selection, local adaptation, assessment of barriers to knowledge use and implementation of interventions. Of immediate relevance, the Project coincides with (1) a recent provincial mandate to ensure that "Every Door is the Right Door: Accessible Care for All", (2) a regional initiative to revise and redistribute maternal-newborn care across the spectrum of community services-primary care networks-tertiary care obstetrics, and (3) a renewed focus on Child and Youth services with changes in healthcare leadership. We present lessons learned and gains made in realizing our mandate in the context of this political backdrop. Translational research in the Ottawa region provides a unique opportunity to understand challenges to knowledge uptake in a diverse community sample typical of Canada (that is: urban, rural, Francophone, mainstream English, First Nations, multi-ethnic, teen and lesbian mothers of various educational/socioeconomic backgrounds). As well, the region poses difficulties with availability and distribution of health resources consistent with those faced throughout Canada and other OECD nations. Findings from this project may as such be of some relevance to a broader international healthcare audience.

Presentation 1: Universal Screening for PPD: Identifying the Gaps in Care Delivery for at-Risk Populations

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There is currently heated academic debate on the utility of universal screening for peripartum mood disorders. Many studies have focused on the validity and acceptability of the Edinburgh Postnatal Depression Scale (EPDS) in various international populations. Few studies are Canadian. Fewer still focus on clinical and health resource implications. In 2010, Ottawa Public Health made the internal decision to initiate universal screening for postpartum depression using the EPDS. This study examines (1) universality of uptake (2) epidemiology generated and (3) clinical impact of this decision.

Methods: Descriptive statistics were conducted to identify the number of women screened and those who were not between May 2010 and April 2011. A descriptive profile of the socio-demographic characteristics of the 4661 women contacted was developed, and a comparison between characteristics of women who consented to screening and those who did not was conducted. A time series regression without control was used to assess sustainability of universal screening over this period. To evaluate the epidemiology, anonymized aggregate EPDS scores were analyzed to evaluate the proportion of women meeting case definition of risk for PPD as compared to published data and data from evaluation of The Ottawa Regional Perinatal Mental Health Program. A logistic regression analysis was conducted to identify predictors of PPD from sociodemographic and infant risk factors. Subsequent chart review of OPH records tracked types of interventions offered and outcomes of both screened-positive and screened-negative women.
Results: Universality and sustainability of screening was consistent with definitions of "universal screening" and epidemiology from existing literature. Comparison of community demographics against demographics of women presenting to the Ottawa Regional Perinatal Mental Health Program (an academic, hospital-based clinic) revealed significant discrepancy. At-risk populations (adolescent, Aboriginal, immigrant and Francophone populations, low SES, single parents, involvement with Children's Aid Society) were less likely to present for care. Various reasons for this are discussed. Although screen results impacted the types of interventions offered to women, outcomes were dependent on accessibility and acceptability of these services. These results are used as a baseline comparator for subsequent service development.

Presentation 2: Program Evaluation of the Ottawa Regional Perinatal Mental Health Program: Identifying Barriers to Care within the Traditional Academic Hospital Setting

Natasha Ballen (The Ottawa Hospital), Jasmine Gandhi (The Ottawa Hospital), Sandhaya Norris (The Ottawa Hospital), Lyndal Petit (The Ottawa Hospital), Jeremy Grimshaw (Ottawa Hospital Research Institute), Robert Swenson (The Ottawa Hospital), Tim Aubry (Centre for Research on Education and Community Services), Genevieve Lafontaine (The Ottawa Hospital), Marie-Pierre Paquet (Université du Québec en Outaouais)
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Perinatal mood disorders (e.g., ante- and postpartum depression) are the most common complications of childbearing, affecting 1 out of 5 mothers. When women suffer from depression, their children can experience profound consequences, with risks being detectable as early as birth (e.g., low birth weight). The attachment literature has shown that exposure to postnatal depression makes a significant contribution to insecurity in the attachment relationship (Lyons-Ruth et al., 1996). Depressed mothers are more likely to neglect and abuse their children (Chaffin, 1996), perceive their infants as more bothersome (Whiffen, 1989), and tend to parent with more negative and disengaged behaviours (Lovejoy, 2000). In addition to the risk of maternal depression, a number of other risk factors have been found to impact the maternal-infant attachment relationship, including a maternal history of trauma, parental disharmony, difficult birth experiences, infant sleep/feeding difficulties, poverty, teenage pregnancy, as well as insufficient support. A recent initiative at the Ottawa Regional Perinatal Mental Health Program was to undertake a program evaluation of the services offered in the clinic and evaluate the characteristics of women seen during pregnancy and the postpartum period.

Aims: (1) Evaluate the characteristics of pregnant and postpartum women seen in our clinic according to sociodemographic variables, as well as clinical domains of mental health, attachment, and level of functioning; (2) Identify predictors of perinatal depression and maternal attachment.
Methods: A descriptive profile of the sociodemographic characteristics was conducted across various time points. Regression analyses were performed to determine the potential differences in level of depressive symptomatology, maternal attachment, and the relationship to other study variables (including infant risk factors, level of functioning, sociodemographic factors, and stressors).
Results: A number of risk factors were identified for perinatal depression and problematic maternal attachment both antenatally and postpartum, including severity of depression and poor functioning in life roles. PPD was associated with negative cognitions about motherhood. Childcare stress was associated with greater feelings of hostility in the attachment relationship.
Conclusions: Perinatal depression causes enormous distress and suffering, affecting not only the mother but her child as well. Detecting depression and risks in the dyadic interaction early is critical for both mothers and their children.
Keywords: perinatal depression, attachment, risk factors

Presentation 3: Psychosocial Interventions Offered at the Ottawa Perinatal Mental Health Program and their Impact on the Maternal-Infant Dyad

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Major depression during the antenatal and postpartum period has been shown to have adverse effects on both maternal and infant behaviour in the first year after birth. Without appropriate clinical interventions, perinatal depression can have long-ranging harmful consequences, including disrupted attachment relationships. Cognitive Behavioural Therapy (CBT) and Interpersonal Psychotherapy (IPT) have been found to be effective and evidence-based treatments for depression, which target factors (e.g., role transition) that play a role in the onset of perinatal depression. Group psychotherapy in particular offers a number of benefits (e.g., universality, interpersonal learning), and several studies have shown group CBT and IPT for postpartum depression to be effective in reducing depressive symptomatology. However, treating depression in the mother does not necessarily address issues surrounding the parent-infant relationship. Even when depressive symptoms have remitted, mothers can continue to have difficulty interacting with their infants in a sensitive manner.
Aims: The aims of the current study were to evaluate whether group therapies (CBT and IPT) for antenatal and postpartum depression are effective interventions for: (1) reducing symptoms of depression, and (2) enhancing maternal attachment, as measured by attachment style, maternal attitudes, and parenting adjustment.
Methods: Women who met DSM-IV-TR criteria for a current major depressive episode (+/− anxiety features) were offered enrollment in one of these groups. They completed a battery of questionnaires pre-group and post-group, as well as clinical measures (e.g., depression) at each session. Measures focused on the clinical domains of mood, attachment, maternal attitudes, and parental adjustment.
Results: Depression scores were significantly reduced for women in all group treatments. Further, the groups were shown to have a positive

impact on maternal attachment and attitudes. The CBT group for PPD was also shown to improve mothers postpartum adjustment.
Conclusions: CBT and IPT group therapy approaches for women with perinatal mood disorders are effective interventions for improving depressive symptoms, however therapy needs to also address the attachment relationship. Interventions that integrate a focus on the remission of depressive symptoms with improving the quality of the mother-infant relationship can reinforce a sense of competence and enjoyment in mothering.

Presentation 4: Implementing Perinatal Mental Health Telephone Consultations to Primary Care Providers in Order to Improve Accessibility and Help Support Parenthood

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The Ottawa Regional Perinatal Mental Health program receives up to 700 referrals/year; sometimes mothers must wait 2–3 months before their initial assessment. This is unfortunate as interventions which treat mental illness earlier during the perinatal period could minimize and prevent potential adverse effects on maternal-infant attachment. Moreover, as demonstrated by program evaluation (Ballen, 2012), women from various at-risk groups (Francophones, Aboriginals, ethnic minorities, single and lesbian mothers, rural/low SES demographics) are highly unlikely to present at an academic hospital setting at all. In a recent needs assessment performed by the Royal Ottawa Hospital (Freeland, 2011), local community physicians and agencies identified access to perinatal mental health expertise as a priority. Until now, telephone advice to primary care providers occurs rarely and is limited only to those patients seen by the psychiatrist. We wonder if it is possible, safe, time-efficient and woman-friendly for perinatal psychiatrists to provide telephone consultations to primary care providers for patients who have not attended the clinic.
Aims: 1. To provide timely advice to primary care providers in order to address patients' perinatal mental health needs faster. 2. To reach women who otherwise might not attend an academic hospital clinic setting.
Method: We conducted a needs assessment for telephone consultations with a sample of midwives/family physicians/obstetricians and psychiatrists. Literature review and interviews with similar consulting services, medical protective bodies, and hospital administration clarified medico-legal issues and provided a template for consulting pathways. A telephone consult service is to ensue shortly; wait times and patients/primary care providers/consulting psychiatrists satisfaction will be documented.
Results: Primary care providers expressed great interest in this model of care. Medico-legal issues regarding documentation and liability were clarified and template assessment forms were adapted from similar psychiatric services. Women involved in this new service will hopefully receive timely medical attention and feel greater ease (for practical and personal reasons) to remain under the care of their known provider. We expect that wait time for in-house consultations will be significantly reduced, and that both consultants and referring practitioners will express satisfaction with this method of health-care delivery.

Australia's National Perinatal Depression Initiative—Successes, Challenges and Future Directions

Chairs(s): Nicole Highet (beyondblue), Marie-Paule Austin (St John of God Healthcare)
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Aims: This symposium will outline the key components in the development and implementation of Australia's National Perinatal Depression Initiative (2008–2013). This includes scoping of the Australian context and establishment of baseline measures to monitor progress of the Initiative over time (paper 1). Approaches to promote screening and the provision of evidence-based practice are outlined (paper 2) and national as well as a local perspective on the Initiative is provided (paper 3). Finally, emerging challenges (particularly self stigma) and the implications of these for screening and the future success of the Initiative will be discussed (paper 4).
Method: This symposium will provide an overview of Australia's National Perinatal Depression Initiative from conception to birth and beyond. In the implementation of the Initiative, a range of strategies and methodologies have been employed. This includes extensive research with consumers, carers and health professionals to scope awareness, understanding and identify needs of these target groups and the broader community.
Results: Research outcomes have informed the development of a range of approaches which have been implemented at a national, state and territory level. This includes the development of national community awareness campaigns, clinical practice guidelines to inform best practice, online training for health professionals and education resources to promote screening and effective treatment and management of perinatal mental health disorders in primary care.
Conclusion: The effectiveness of these strategies has been evaluated to determine their relative contribution to the overall successful implementation of the NPDI across Australia. Various challenges have emerged highlighting the importance of collaboration both with national stakeholders as well as consumers and carers. Ongoing challenges including stigma, national data collection and complex nature of perinatal mental health disorders will be highlighted for consideration and discussion.

Presentation 1: The Australian Context for Perinatal Mental Health

Nicole Highet (beyondblue), Carol Purtell (beyondblue), Jeannette Milgrom (Austin Health), Alan Gemmill (Austin Health)
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Aims: Provide an overview of the Australian context in which Australia's National Perinatal Depression Initiative was implemented through extensive qualitative and quantitative research across the community and health professionals.
Methods: To obtain an understanding of community literacy and perceptions of perinatal mental health disorders, a quantitative study was undertaken with 1,200 respondents across Australia. Following, in-depth qualitative interviews were conducted with 46 mothers (consumers) to explore and gain insights into their personal experiences of perinatal depression and anxiety and treatment services. The same qualitative methodology was used to gain insight into knowledge and understanding of perinatal mental health disorders across a range of health professionals (N=48) including general practitioners, obstetricians, midwives and child and family health nurses.
Results: Quantitative analysis of community perceptions reveals that a significant proportion of the Australian population believe that depression was 'a normal part of pregnancy' (52 %) and following the birth of a baby (24 %). The community also indicated favourable attitudes surrounding screening both antenatally (74 %) and postnatally

(87 %). Qualitative research with consumers highlighted the barriers to identifying depression and anxiety including high levels of stigma which had implications for help seeking. The qualitative research with health professionals highlighted great variability in awareness, understanding, confidence and competence to manage perinatal depression and anxiety in primary care settings.
Conclusions: The results from the above individual studies assisted with informing strategies for the implementation of Australia's National Perinatal Initiative. This includes the development of targeted campaigns for consumers and health professionals together with the development of educational resources and training programs to meet the needs of the community, consumers and the range of health professionals.

Presentation 2: Establishing and Supporting Evidence Based Practice in Implementing Australia's National Perinatal Depression Initiative

Jeannette Milgrom (Austin Health), Nicole Highet (beyondblue), Carol Purtell (beyondblue)
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Aims: This paper outlines the establishment and implementation of Australia's $85 million National Perinatal Depression Initiative (NPDI) which involves the routine screening of all perinatal women and provision of perinatal mental health care. A range of strategies was established, including the development of National Stakeholder Committees to advise and inform the NPDI implementation, the development of evidence based Clinical Practice Guidelines and free, fully accredited online training for health professionals (informed by the Guidelines). Together with the development of educational resources, these strategies serve to equip health professionals with the skills to detect and manage mental health disorders and facilitate the implementation of the NPDI.
Methods: Beyondblue Clinical Practice Guidelines for depression and related disorders—anxiety, bipolar disorder and puerperal psychosis—in the perinatal period were developed by a national expert advisory committee. In addition a specialist workforce training committee devised a perinatal mental health training matrix to identify required skills knowledge and competencies to deliver perinatal mental health care across Australia. The matrix underpinned the online training program which was developed with Australian leading experts in perinatal mental health.
Results: The Guidelines were endorsed by the Australian National Health and Medical Research Council in May 2010 and since then over 13000 copies of the guidelines have been disseminated and independent research of the uptake of Guidelines is underway. The online training program was fully accredited by a range of professional colleges and since its release in May 2010 over 1600 health professionals have/are undertaking the online Program. Evaluation of the Program reveals significant increase in awareness, confidence and competence for a range of primary health professionals to deliver screening and manage and treat perinatal mental health disorders. Companion documents currently in development will support the online Program and Guidelines.
Conclusion: The NPDI is currently being implemented successfully across jurisdictions throughout Australia with varying degrees of uptake. Evaluation and feedback of the Guidelines and online training demonstrates the effectiveness of these approaches to assist in the implementation of routine psychosocial assessment and screening for depression and anxiety during pregnancy and the year following birth to assist in the delivery of evidence-based practice.

Presentation 3: National Perinatal Depression Initiative—Improving our Response in Western Australia

Leanda Verrier (Western Australia Perinatal Mental Health Unit), Janette Brooks (Western Australia Perinatal Mental Health Unit), Lea Davidson (Western Australia Perinatal Mental Health Unit), James Foley (Western Australia Perinatal Mental Health Unit), Renae Gibson (Western Australia Perinatal Mental Health Unit), Miriam Maclean (Western Australia Perinatal Mental Health Unit)
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Aim: This paper will provide an overview of the Western Australian (WA) response to the key elements of the National Perinatal Depression Initiative (NPDI) within local metropolitan, rural and remote communities. The key activity areas of the initiative address workforce training and development; universal and routine screening; treatment, follow up care and support; community awareness raising and data collection.
Methods: Prior to the initiative, WA had developed and evaluated a number of new support services for women with perinatal mental health issues, providing sound justification for the allocation of Commonwealth funding. Service expansion projects demonstrating positive outcomes were extended and new innovative models of services were commenced. Projects included practical in-home support, women's support groups and an Aboriginal perinatal mental health program. To ensure workforce readiness, education and training programs were expanded and new modules developed with innovative methods of delivery. A number of locally relevant perinatal mental health promotion strategies were implemented to raise awareness within communities, inclusive of resource development, distribution of beyondblue information, community events, and media coverage, with the aim of reducing stigma and encouraging help seeking behaviours.
Results: Since 2009 integrated services have been gradually introduced to both metropolitan and rural areas of WA. Following the first 12 months of implementation, the north metropolitan integrated service has demonstrated positive outcomes both qualitatively and quantitatively. Perinatal service evaluations from the south metropolitan area and country services are expected to be completed by September 2012 and results available for the conference. To date, performance indicators are being met in the key activity areas. As part of the National Initiative, close ties have been forged with other states and territories through sharing of knowledge and experiences for the greater good of the Australian people.
Conclusions: The implementation and coordination of new services at the local level, together with building the capacity of health professionals to respond to perinatal mental health, is proving beneficial to women and their families in WA. The challenges of meeting increasing community demand across such a vast state and securing continued funding remain.

Presentation 4: Increasing Awareness of Perinatal Mental Health and Reducing Stigma—What Works and What Doesn't?

Nicole Highet (beyondblue), Carol Purtell (beyondblue)
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Aims: In response to the low awareness of symptoms and high levels of stigma surrounding perinatal depression and anxiety a range of strategies have and continue to be implemented, and their impact to date will be demonstrated. The low awareness and high stigma

continues to present an ongoing challenge in the success of the National Initiative as they impact on help seeking, screening and the uptake of services. Some proposed strategies to address these challenges will be outlined and discussed

Methods: A range of approaches has been implemented to increase community awareness and reduce the stigma. This has included the development of a national advertising campaign depicting high profile and everyday people's experiences of perinatal depression and anxiety and promoting help-seeking. This health promotion campaign, "Just Speak Up" was supported through the development of a website, posters and flyers to encourage women and their families to 'speak up' about their experience in an effort to reduce the stigma and break the silence. The impact of the stigma, the campaign and other activities has been evaluated through recently completed longitudinal research across the Australian community and in new quantitative research currently being undertaken amongst women who have experienced perinatal mental health disorders.

Results: The outcomes of the "Just Speak Up" campaign revealed the high levels of stigma and low levels of awareness that continue to exist amongst women as evidenced by the high proportion of website visitors who wished to remain anonymous.

Conclusion: The outcomes of the campaign and other research has prompted the stakeholders of the NPDI to consider other innovated approaches to increasing community awareness and destigmatisation and these will be discussed.

Comorbidity in Perinatal Mental Disorders

Chairs(s): Louise Michele Howard (King's College London), Nadia Micali (University College London)
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Perinatal mental disorders are common and associated with psychological morbidity, adverse obstetric and infant outcomes and long term adverse psychological outcomes for mother and child. Perinatal mental disorders are also associated with higher risk of comorbid problems including obesity, smoking, domestic violence and physical health problems. These comorbid problems are likely to account for many of the adverse pregnancy, maternal and child outcomes but are not routinely identified in clinical practice or in research. This symposium presents new research on four of these comorbid risk factors.

Presentation 1: Depression, Obesity, and Gestational Wieght Gain During Pregnancy

Emma Molyneaux (King's College London), Nadia Micali (University College London), Lucilla Poston (King's College Londo), Louise Michele Howard (King's College London)
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Background: Recent research suggests that antenatal depression may be associated with high pre-pregnancy body mass index (BMI) and gestational weight gain (GWG) outside the recommended range but the evidence is limited and inconsistent.

Methods: 14,541 pregnant women were recruited into the Avon Longitudinal Study of Parents and Children (ALSPAC) cohort. Women with a self-reported pre-pregnancy BMI classified as normal, overweight or obese who had completed the Edinburgh Postnatal Depression Scale at 18 weeks gestation were included in the current study (n=9,585). GWG was extracted from routine records and classified by the Institute of Medicine (2009) recommendations (inadequate, recommended or excessive).

Results: Women who were obese pre-pregnancy had significantly higher odds of probable antenatal depression at 18 weeks gestation. This effect remained statistically significant following adjustment for behavioural confounders but not following adjustment for socio-demographic confounders or in the fully adjusted model. Depression was not significantly associated with gestational weight gain either before or after adjustment for confounders.

Conclusions: These findings suggest that antenatal depression is not independently associated with high pre-pregnancy BMI or adequacy of gestational weight gain. However, study limitations such as selection bias must be taken into account when interpreting the findings.

Presentation 2: Domestic Violence and Perinatal Mental Disorders

Sian Oram (King's College London), Kylee Trevillion (King's College London), Gene Feder (University of Bristol), Helen Galley (South London and Maudsley NHS Foundation Trust), Louise Michele Howard (King's College London)
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Aims: To establish the prevalence and risk of domestic violence amongst women with perinatal depression, anxiety, and post-traumatic stress disorders.

Methods: We searched 18 electronic databases for peer-reviewed literature published before 31st March 2011 and supplemented the search with citation tracking, hand searching and expert recommendations. Studies were eligible for inclusion if they: (a) included women who were 16 years or older and were diagnosed with, or screened positive for, perinatal depression, anxiety or post-traumatic stress disorder (PTSD); (b) measured the prevalence and/or odds of domestic violence victimisation. No restrictions were placed on study setting or language of publication. We evaluated methodological quality using a modified version of the Critical Appraisal Skills Programme instrument and used quality appraisal scores to inform sensitivity analyses. Pooled risk estimates were calculated using random effects meta-analytic techniques.

Results: We identified 51 papers reporting on domestic violence and perinatal mental health. 42 papers measured depression (26 antenatal and 16 postnatal), 3 anxiety (2 antenatal and 1 postnatal), and 4 PTSD (3 antenatal and 1 postnatal). 8 papers reported on psychological distress (4 antenatal and 4 postnatal). The majority of studies were conducted in North America (n=20), although studies from Asia (n=13), Australasia (n=4), Europe (n=7), the Middle East (n=2) and South America (n=4) are also represented in the review. Summary statistics will be presented of the prevalence and risk of domestic violence victimisation amongst women with perinatal mental disorders.

Conclusion: There is a high prevalence of domestic violence during pregnancy and amongst women with perinatal mental disorders. Mental health and maternity professionals, and domestic violence services, should be aware of these issues and be able to respond appropriately.

Presentation 3: Smoking Cessation and Mental Health In Pregnancy

Deborah Bekele (King's College London), Louise Howard (King's College London)
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Background: Smoking is an important risk factor for low birth weight, very preterm birth, and perinatal death including Sudden Infant Death Syndrome. Women with mental disorders are more likely to smoke during pregnancy compared with women without mental disorders. However, it is not clear how these women can be helped to stop smoking during pregnancy. This study therefore aims to investigate barriers to, and facilitators of, smoking cessation in pregnant women with mental disorders to inform future interventions.
Methods: Qualitative study using individual semi-structured interviews in pregnant women. A purposive sample of women who were smokers, with or without mental disorders and of different ethnic backgrounds were recruited from antenatal clinics and perinatal psychiatry services; the presence or absence of mental disorders in the women recruited from antenatal clinics was measured using the Clinical Interview Schedule-revised version. Framework analysis was used to investigate women's attitudes towards smoking during pregnancy, their knowledge about the effects of smoking on themselves and their baby, their knowledge about the effectiveness of help with stopping smoking during pregnancy and their attitudes towards different types of interventions.
Results: To date 27 women have been interviewed, mean age: 27 years (range 18–42; sd: 5.9); 12 women were white, 12 black, and 3 were of other, or mixed, background; 13 (50.0 %) had no diagnosis, others had varying diagnoses of mild to severe mental disorders. Emerging themes include impact of the social environment and negative and positive experiences of support by healthcare professionals.
Conclusion: Implications of our findings will be discussed including how they can inform the development and evaluation of interventions for women with and without mental disorders who smoke during pregnancy.

Presentation 4: Psychiatric and Physical Co-Morbidity in Pregnancy: Implications for Outcomes and Quality of Maternity Care

Debra Bick (King's College London)
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Background: Women who experience psychiatric and co-morbid physical illness in pregnancy are at increased risk of adverse obstetric and neonatal outcome, including premature birth, low infant birthweight and caesarean birth. Current models of maternity care should reflect evidence based recommendations to promote identification and management of co-morbidity, with timely and appropriate referral and follow-up by the multi-professional team. This presentation will provide an overview of current evidence of risk of co-morbidity, implications for pregnancy outcomes and quality of maternity care. In the absence of large intervention trials, reference will be made to a recently completed study as an example of how maternity services could be revised to enhance outcomes in line with evidence.
Methods: A pre and post intervention study, informed by a continuous quality improvement approach was undertaken at a large maternity unit in England. The aim was to support implementation of NICE guidance through system and process change to promote early identification of co-morbidity, implement care based on need and enhance postnatal health outcomes up to 3 months post-birth. Outcomes were assessed at 10 days and 3 months post-birth and included EPDS scores at 3 months, infant feeding, physical health and women's views of support for their mental and physical health.
Results: Data were obtained on 741/1160 (64 %) women at 10 days post-birth and 616 (54 %) at 3 months post-birth pre-intervention, and 725/1153 (63 %) and 575 (50 %) respectively post-intervention. Post intervention there were no differences in mental health outcomes or women's views of support for their emotional health. There were statistically significant differences in the initiation (p=0.050) and duration of any breastfeeding to three months (p=0.016). Women were less likely to report physical morbidity and were more positive about their care.
Conclusion: Interventions to support pregnant women with psychiatric and physical co-morbidity should target health priorities in a co-ordinated and integrated way, with care based on the individual need. Further evidence of how to support optimal planning and integration of services to support women who experience co-morbidity across the continuum of pregnancy, birth and the postnatal period is required.

Genetic Approaches to Postpartum Mood Disorders

Chairs(s): Ian Jones (Cardiff University)
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Genetic approaches offer great potential for improving our understanding of the aetiology of postpartum mood disorders. In this symposium we will consider what is known about the genetics and epigenetics of mood disorders, postnatal depression and postpartum psychosis.

Presentation 1: Monocyte gene Expression in First-Onset Postpartum Psychosis

Veerle Bergink (Department of Psychiatry, Erasmus MC, University Medical Centre), Karin Burgerhout (Department of Psychiatry, Erasmus MC, University Medical Centre), Karin Weigelt (Department of Immunology, Erasmus MC, University Medical Centre), Victor Pop (Department of Medical Health Psychology, Tilburg University, The), Harm de Wit (Department of Immunology,), Roos Drexhage (Department of Immunology, Erasmus MC, University Medical Centre), Steven Kushner (Department of Psychiatry, Erasmus MC, University Medical Centre), Hemmo Drexhage (Department of Immunology, Erasmus MC, University Medical Centre)
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Aims: Accumulating evidence suggests that deregulation of the immune system represents an important vulnerability factor for mood disorders. Postpartum psychosis (PP) is a severe mood disorder occurring within 4 weeks after delivery, a period of heightened immune responsiveness and an altered endocrine set point. Therefore, the aim of this study was to examine immune activation in patients with first-onset PP at the level of monocytes, T-cells, and serum cytokines/chemokines.
Methods: We included 64 women consecutively admitted with first-onset postpartum psychosis (PP). Control groups included healthy postpartum (n=43) and non-postpartum (n=38) women. A quantitative-PCR case–control monocyte gene expression analysis was performed using 45 genes previously identified as abnormally regulated in non-postpartum mood disorder patients including the activating and inactivating isoforms of the glucocorticoid receptor (GR–α and β). T-cell percentages were measured by FACS analysis, while serum monocyte and T-cell related cytokines/chemokines were determined using a cytometric bead array.
Results: Compared to healthy non-postpartum women, monocyte gene expression and T-cell levels in the postpartum period were significantly elevated. Among the postpartum women, PP patients had a significant

up-regulation of monocyte genes not otherwise elevated in the normal postpartum period. Further, the GR-β/α gene expression ratio was increased in monocytes of PP patients, strongly correlating with their immune activation. Remarkably however, PP patients had significantly reduced levels of total T-cells and total T helper cells, as well as Th1 and Th17 subsets, compared to healthy postpartum controls.
Conclusion: This study demonstrates a robust deregulation of the immuno-neuro-endocrine set point in PP, with a notable over-activation of the monocyte/macrophage arm of the immune system.

Presentation 2: Phenotyping, Prevalence, and Genetic Signature of Postpartum Depression in the NESDA GWAS Study and Swedish Twin Registry Study

Samantha Meltzer-Brody (The University of North Carolina at Chapel Hill, Chapel Hill, NC), Lynn Boschloo (VU, Amsterdam), Brenda Penninx (VU, Amsterdam), Alexander Viktorin (Karolinska Institute, Sweden), Paul Lichtenstein (Karolinska Institute, Sweden), Patrik Magnusson (Karolinska Institute, Sweden), Ian Jones (Cardiff University, UK), Patrick Sullivan (The University of North Carolina)
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Background: Perinatal depression (PND) is a morbid complication of childbirth. Identification of risk factors and phenotypic characteristics that distinguish PND from major depression (MDD) has important implications that could provide insight into psychological, biological and genetic vulnerabilities to PND. Although a widely used PND assessment instrument, the Edinburgh Postnatal Depression Scale (EPDS) assesses current symptoms, there does not exist a reliable PND lifetime assessment tool.
Aims: We measured the performance of the modified EPDS in assessing lifetime prevalence of PND in two European longitudinal studies—the Netherlands Study of Anxiety and Depression (NESDA), and the Swedish Twin Registry (STR). We also assessed lifetime prevalence of PND, evaluated risk factors for PND compared to MDD, and c) estimated heritability of PND in the STR.
Methods: Subjects are from NESDA and the STR. NESDA is an ongoing cohort study examining the long-term course of adult depression and anxiety disorders. We used data from baseline and 4-year assessments. STR is the largest population-based registry of twin births in the world with ongoing follow-up. To determine PND status, we developed a lifetime version of the EPDS. For NESDA, the lifetime EPDS was administered during the 4-year follow-up interview and in the SALTY study in the STR.
Results: In NESDA, 32.8 % of women who had ≥1 live birth had an EPDS score of ≥12. The EPDS had good internal consistency (Cronbach's alpha 0.83), and agreement with lifetime MDD on the CIDI (87.4 % agreement). A history of childhood trauma/abuse emerged as a significant risk factor for PND ($p=0.006$) compared to both the non-depressed and the MDD groups. In the STR, the performance of the EPDS and heritability will be presented based on 5,633 female twins belonging to 4460 different pairs.
Conclusions/Implications: A new lifetime version of the EPDS demonstrated promise as a useful tool for assessing lifetime PND history. This provides a mechanism for obtaining lifetime histories of PND in clinical settings and has research implications for lifetime phenotyping of PND in order to perform future genetic studies. We will present an estimate of the heritability of PND based on the largest twin study to date.

Presentation 3: Genetic Insights into Postpartum Psychosis

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Background: The weeks following childbirth are a time of considerable risk for the new onset of a severe mood episode. Postpartum (or puerperal) psychoses occur following approximately 1 in 1000 deliveries. Studies have confirmed that women with bipolar disorder are at a particularly high risk of episodes of severe postpartum affective disorder, and that familial (genetic) factors influence vulnerability to the puerperal trigger.
Aims: We have conducted molecular genetic studies in order to identify genetic variants that predispose women to bipolar affective puerperal psychosis. Methods:
The Wellcome Trust Case Control Consortium (WTCCC) study is a genome wide association study of seven complex genetic diseases that has genotyped 14000 cases and 3000 controls at 500,000 genetic variants. Over 1800 individuals with bipolar disorder have been included in this study and this includes 186 women who have suffered an episode of postpartum psychosis. Promising findings in the postpartum psychosis sample are now being explored in a replication sample of over 500 women with bipolar disorder experiencing severe postpartum episodes.
Results: In the initial WTCCC study, pathway analysis in the postpartum psychosis group controls reveals a number of positive associations for genes involved in vascular endothelial growth factor receptor activity.
Conclusions: It is hoped that this line of research will uncover the nature of the puerperal trigger, allow a more individualised estimation of risk for women with bipolar disorder, and provide further information relating to the aetiology of mood disorders in both the puerperium and at other times.

Presentation 4: Stress and Depression: From Genetics to Epigenetics

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Major depression is a moderately heritable disorder, caused by an interaction of stressful life events and genes. The search for genetic variants involved in depression has been difficult, and only a few genes, such as the serotonin transporter gene, the glucocorticoid receptor gene and its cochaperone FKBP5 have been repeatedly shown to be involved in the pathogenesis of the disorder. These genes all seem related with the function of the biological stress response. However, variants in these genes only are only responsible for a minor part of the genetic liability to develop depression.
More recently, attention is shifting to epigenetic changes leading to an increased stress sensitivity. In animal models, it has been repeatedly shown that pre- and postnatal stress can lead to epigenetic changes at the promoter site of the glucocorticoid receptor gene, leading to long-term changes in the function of the stress system. In human studies however, evidence is still scarce.
We will provide an overview of epigenetic studies in humans related to pre- and postnatal stress. Further, results will be reported from two studies looking at the influence of prenatal stress. These studies,

including a total group of 200 pregnancies, have examined stressful life events, anxiety, depression and HPA axis function at three time points during pregnancy. These data are related to intrauterine growth and the function of the HPA axis in the children at the age of 4 months. Further, we will present preliminary data on methylation patterns in glucocorticoid receptor gene promoter regions in function of prenatal stress.

Severe Postpartum Mood Disorders—From Epidemiology to Clinical Practice

Chairs(s): Ian Jones (Cardiff University)
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The link between childbirth and episodes of severe mental illness has been written about for hundreds if not thousands of years. In this symposium we will present epidemiological evidence of this link in population based registry studies, evidence from clinical populations examining the nature and strength of the association, and studies examining the prevention of severe postpartum episodes in women at high risk.

Presentation 1: Prevention of Postpartum Psychosis in Women at High Risk

Veerle Bergink (Department of Psychiatry, Erasmus MC, University Medical Centre), Paul Bouvy (Department of Psychiatry, Erasmus MC, University Medical Centre), Jeroen Vervoort (Department of Psychiatry, Erasmus MC, University Medical Centre), Kathelijne Koorengevel (Department of Psychiatry, Erasmus MC, University Medical Centre), Eric Steegers (Department of Obstetrics, Erasmus MC, University Medical Centre), Steven Kushner (Department of Psychiatry, Erasmus MC, University Medical Centre)
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Objective: Women with a history of bipolar disorder or postpartum psychosis are at extremely high risk of relapse postpartum. Although lithium prophylaxis has demonstrated efficacy in reducing postpartum relapse, the timing of prophylaxis remains controversial given the balance of risks and benefits for the mother and fetus. Here we evaluate the use of lithium during pregnancy compared to its initiation postpartum in women at high risk for postpartum psychosis.
Method: In total, 70 pregnant women at high risk for postpartum psychosis were referred to our psychiatric outpatient clinic between January 2003 and December 2010. Women who were medication-free at the time of initial evaluation were advised to start lithium prophylaxis immediately postpartum. In contrast, women already on maintenance lithium during pregnancy were advised to continue this treatment.
Results: All women with a history of psychosis limited to the postpartum period (n=29) remained stable throughout pregnancy despite being medication-free. In contrast, 24.4 % of women with a history of bipolar disorder (n=41) relapsed during pregnancy, despite the majority using prophylaxis throughout pregnancy. During the postpartum period, relapse was highest in women with bipolar disorder who experienced mood episodes during pregnancy (60.0 %). Remarkably however, none of the 20 women with postpartum psychosis using postpartum prophylaxis relapsed, compared to 44.4 % of postpartum psychosis patients who declined lithium prophylaxis.
Conclusions: We recommend initiating prophylactic treatment immediately postpartum in women with a history of psychosis limited to the postpartum period, offering an important clinical advantage by avoiding in utero fetal exposure to prophylactic medication. Additionally, patients with bipolar disorder require continuous prophylaxis throughout pregnancy and the postpartum period to effectively reduce their peripartum relapse risk.

Presentation 2: Bipolar Disorder in Pregnancy and the Postpartum

Arianna Di Florio (Cardiff University), Liz Forty (Cardiff University), Katherine Gordon-Smith (University of Birmingham), Jess Heron (University of Birmingham), Lisa Jones (University of Birmingham), Nick Craddock (Cardiff University), Ian Jones (Cardiff University)
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Aims: To investigate the burden of perinatal mood episodes in women with bipolar disorder.
Methods: The sample was recruited as part of our ongoing research on genetic and non-genetic determinants of major affective disorders. Only parous women with an age of onset below 50 were included in the present analyses. Women recruited on the basis of having a postpartum episode were excluded from the current analyses. The sample included 1212 women with bipolar disorder (980 with bipolar I disorder and 232 with bipolar II disorder). Data on the occurrence of perinatal episodes were available on 1828 individual living births.
Participants were interviewed using the Schedules for Clinical Assessment in Neuropsychiatry and psychiatric/general practice case notes were reviewed. These data were combined for each participant to form a written case vignette. Best-estimate lifetime diagnoses were made according to DSM–IV, ICD–10 and RDC.
Results: Around two thirds of women with bipolar disorder reported at least one episode of illness during pregnancy or the postpartum. Women with bipolar I disorder reported approximately 1 in 2 pregnancies affected, while rates were lower in women with bipolar II disorder at around 40 %. Consistent with previous research, we found that in women with bipolar I disorder more than 1 in 5 pregnancies was complicated by psychosis or mania soon after childbirth.
Rates of having a first child were similar in both bipolar diagnoses but the rate of having another baby was lower in women with bipolar I disorder than those with bipolar II disorder. This may be due to women with a severe postpartum episode in the bipolar I disorder group choosing to not extend their families. Women with a history of postpartum psychosis, in fact, but not those who reported only postpartum depression, had fewer children than those without any postpartum mood disorders (Wilcoxon signed rank test, $p<0.001$).
Conclusion: Perinatal episodes are highly prevalent in women with bipolar disorder and may influence the reproductive choices.

Presentation 3: The Postpartum Onset Specifier Controversy—Can Data Help?

Arianna Di Florio (Cardiff University), Katherine Gordon-Smith (University of Birmingham), Liz Forty (Cardiff University), Jess Heron (University of Birmingham), Emma Robertson Blackmore (University of Rochester), Lisa Jones (University of Birmingham), Nick Craddock (Cardiff University), Ian Jones (Cardiff University)
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Aims: To investigate the specificity of the postpartum trigger and to explore different definitions of the postpartum onset specifier across mood disorders.
Methods: The sample was recruited as part of our ongoing research on genetic and non-genetic determinants of major affective disorders. The sample included 1785 women with mood disorders (980 with bipolar I disorder, 232 with bipolar II disorder and 573 with recurrent major depression). Data on the occurrence of perinatal episodes were available on 3017 individual living births.
Kaplan-Maier estimates and survival curves were produced to display the patterns of onset across diagnostic groups. The log-rank test was used to test whether the survival curves for bipolar I disorder, bipolar II disorder and recurrent major depression were identical. The Wilcoxon signed rank test was used to compare the rates of episodes occurred within 1 month after delivery with the rates of lifetime episodes/month.
Results: While the DSM-IV onset specifier covered the vast majority (94 %) of episodes of postpartum psychosis, 1 in 4 episodes of depression occurring within 12 months after childbirth was excluded by the DSM-IV specifier.
Episodes of illness within a month after childbirth were overrepresented in women with a lifetime diagnosis of bipolar I disorder and recurrent major depression ($p<0.01$), but not in those with bipolar II disorder.
Similarly, episodes of postpartum depression had very overlapping ($p=0.93$) patterns in women with a lifetime diagnosis of bipolar I disorder and recurrent major depression, but not in those with bipolar II disorder. In bipolar I disorder, the survival curves for mania and psychotic depression overlapped ($p=0.92$), while non-psychotic depressive episodes had a significantly later onset in the postpartum ($p<0.01$).
Conclusions: Although episodes of postpartum psychosis occurred earlier than those of postnatal depression, there were no differences in the specificity of the postpartum trigger and in the pattern of onset between bipolar I disorder and recurrent major depression. Childbirth may not, however, represent a specific trigger for bipolar II disorder.

Presentation 4: Evaluation of Treatment of First-Onset Postpartum Psychosis

Karin Burgerhout (Erasmus MC, Netherlands,), Veerle Bergink (Erasmus MC, Netherlands,), Tom Smans (Erasmus MC, Netherlands,), Kathelijne Koorengevel (Erasmus MC, Netherlands,), Steven Kushner (Erasmus MC, Netherlands,)
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Objective: To prospectively characterize a cohort of patients for whom their first lifetime episode of psychosis occurred in the postpartum period. We evaluated treatment response, duration of episode and sustained remission at 9 months postpartum.
Methods: Included were 57 women admitted for a first lifetime episode of psychosis occurring in the postpartum period. Treatment was administered using the clinical guidelines for bipolar disorder. Specifically, all patients were initially treated with benzodiazepines. In patients without a marked improvement, antipsychotics were added. For those patients without a significant clinical response after 2 weeks of antipsychotic therapy, adjunctive lithium was initiated. Remission was defined as the absence of psychotic, manic and depressive symptoms for at least 1 week (including CGI-S score≤3, YMRS score≤8 and EPDS score≤10). Patients were screened at 9 months postpartum. Relapse was defined by using a CGI-BP score>3 and the existence of a mood episode according to DSM-IV.
Results: 71.9 % of the women were treated with a combination of benzodiazepines, antipsychotics and lithium, 21.1 % were treated with benzodiazepines and antipsychotics, 5,3 % with only benzodiazepines and 1,8 % without medication. One woman needed adjuvant ECT. All but one patient achieved clinical remission (98,2 %). The median duration of an episode was 48 days (IQR 34–82).
At 9 months postpartum, one woman was lost-to-follow-up. Sustained remission was observed in 78.6 %, while 21.4 % experienced a relapse. Eight patients suffered from depression and 4 women experienced manic-psychotic symptoms. Remarkably, half of the women treated without lithium and only benzodiazepines and antipsychotic pharmacotherapy relapsed within 9 months postpartum (50 %). In contrast, only 15 % of women treated with a combination of benzodiazepines, antipsychotic and adjunctive lithium relapsed within 9 months postpartum (OR=0.12, 95 % CI 0.02–0.67).
Conclusions:
a) 98,2 % of women with a first onset psychosis in the postpartum period achieved remission using combined pharmacotherapy with benzodiazepines, antipsychotics and lithium.
b) The majority of women (78.6 %) experienced sustained remission during the 9 month follow-up period.
c) Treatment with antipsychotics and adjunctive lithium appears to be superior to antipsychotics alone for achieving sustained remission.

Perinatal Stress and its Effect on Both the Fetus and the Mother (Swiss Symposium)

Chairs(s): Martin Kammerer (Imperial college London), Manuella Epiney (Geneva university hospital)
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This symposiums aims at presenting research carried out by Swiss research teams and collaborating groups.
Main theme is perinatal stress and its effect on both the fetus and the mother.
Professor Ulrike Ehlert, chair of clinical psychology at the University of Zurich, will give an overview of psychobiological results of standardized stress provocation in human pregnancy. Published data on stress provocation in pregnant women show conflicting results regarding the alterations of the hypothalamus-pituitary-adrenal (HPA) axis and the autonomic nervous system (ANS) with respect to the ongoing pregnancy and the type of stressor. Ulrike Ehlert will present data measuring the endocrine and autonomic responses to standardized psychosocial stress at different stages of pregnancy and to an invasive diagnostic procedure (amniocentesis) during the second trimester.
Dr. Pearl Ghaemmaghami of the University of Zurich has investigated the maternal-fetal stress response during the second trimester of pregnancy and will present results comparing the ratio of cortisol to cortisone in the amniotic fluid with the ratio of these compounds in the saliva of the pregnant woman.
Dr. Orly Sarid from the Ben-Gurion University of the Negev—currently in Switzerland—has researched associations among stressful reproductive experiences (e.g. fertility problems, abortions, traumatic births, and loss of a child), chronic medical conditions, pain and depression.
Dr. Corinne Urech from the University of Basle has looked at associations of these factors and antepartum physiological stress parameters. She found that psycho physiological vulnerabilities contribute to the appraisal of the experience of giving birth and impaired psychological adjustment to birth.

Presentation 1: Psychobiological Results of Standardized Stress Provocation in Human Pregnancy

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Research on stress provocation in pregnant women has resulted in inhomogeneous findings regarding the alterations of the hypothalamus-pituitary-adrenal (HPA) axis and the autonomic nervous system (ANS) with respect to the ongoing pregnancy and the type of stressor. In a series of studies we examined the endocrine and autonomic responses to (a) standardized psychosocial stress at different stages of pregnancy and (b) to an invasive diagnostic procedure (amniocentesis) during the 2nd trimester.
In study 1 we exposed 30 healthy pregnant women at the beginning of the 2nd trimester (group 1), 30 healthy pregnant women at the beginning of the 3rd trimester (group 2) and 30 healthy non-pregnant controls (group 3) to a standardized psychosocial stress test. In study 2 healthy pregnant women (n=34) underwent amniocentesis for karyotyping. Stress response was measured by endocrine parameters from saliva samples (cortisol (F), cortisone (E), and alpha-amylase) and heart rate for the calculation of the heart rate variability (HRV). In study 2 E/F ratio was assessed from amniotic fluid samples, additionally. In study 1 stimulated SAM and HPA response showed sig. increases in group 1 and 3 following stress exposure, but blunted responses in the second group. In study 2, the amniocentesis provoked a sig. increase of the SAM parameters. Baseline HRV indices, mirroring autonomic sympatho-vagal balance, were negatively correlated with amniotic fluid E/F ratio and positively with F, whereas a stronger HRV stress response was positively related to E/F ratio and negatively to F.
Our data provide evidence that (a) healthy pregnant women show characteristic stress responses during pregnancy and (b) allostatic processes seem to be initiated to counterbalance the effects of acute stress.

Presentation 2: Stress Reactivity During Pregnancy and its Psychobiological Impact on Mother and Fetus

Pearl Ghaemmaghami (University of Zurich, Switzerland), Sara Dainese (University of Zurich, Switzerland), Roberto La Marca (University of Zurich, Switzerland), Roland Zimmermann (University of Zurich, Switzerland), Ulrike Ehlert (University of Zurich, Switzerland)
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Aims: The present study was geared to investigating the maternal-fetal stress response during the second trimester of pregnancy and to comparing the ratio of cortisol (F) to cortisone (E) in the amniotic fluid with the ratio of these compounds in the saliva of the pregnant woman. This ratio was calculated with the following formula: E/(E+F) and is used as a marker for the activity of the enzyme 11β-hydroxysteroid dehydrogenase Type 2 (11β-HSD2). 11β-HSD2 converts active F into inactive E and is known to be present in the adult salivary glands, the placenta and the fetal system. It has been suggested to play a key role in the regulation of the quantity of maternal glucocorticoids entering the fetal environment.
Methods: Repeated saliva samples and an aliquot of amniotic fluid were obtained from thirty-four healthy pregnant women (mean age 37.5, SD 3.9 years) undergoing amniocentesis for karyotyping (stress condition). Alterations in mood, stress perception and state anxiety were regularly monitored using questionnaires. Participants were asked to return for a control condition after they had received the inconspicuous test results.
Results: The amniocentesis induced significant psychological distress in the pregnant women. Correspondingly, increases in salivary F and salivary E and a decrease in salivary E/(E+F) was disclosed. Moreover, the stress response of salivary E correlated positively with amniotic levels of F, while the response of salivary E/(E+F) was positively associated with amniotic fluid E/(E+F).

Presentation 3: The Contribution of Negative Reproductive Experiences and Chronic Medical Conditions to Depression and Pain Among Israeli Women

Orly Sarid (Ben-Gurion University of the Negev), Dorit Segal-Engelchin (Ben-Gurion University of the Negev), Julie Cwikel (Ben-Gurion University of the Negev)
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This study of 302 Israeli women sought to investigate the associations among stressful reproductive experiences (e.g. fertility problems, abortions, traumatic births, and loss of a child), chronic medical conditions, pain and depression. The specific aims of the study were to examine: (1) the effect of stressful reproductive experiences, chronic medical conditions and pain on depressive symptoms and (2) the effect of stressfull reproductive experiences, chronic medical conditions and depressive symptoms on pain. Our findings corroborate with previous studies demonstrating that depression and pain are two interrelated, but different phenomena, which have both common and distinct risk factors. The findings are discussed in the light of stress and adaptation theories which point to the long term effects of stressful life events on emotional and physiological aspects such as depression and pain.

Presentation 4: Can Antenatal Psychobiological Factors Explain Psychological Response to Childbirth?

Corina Urech (University of Basel), Gertrud Breitinger (University of Basel), Cristina Granado (University of Basel), Isabel Fornaro (University of Basel), Irène Hoesli (University of Basel), Johannes Bitzer (University of Basel), Judith Alder (University of Basel)
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Aims: Besides obstetric predictors, several psychological parameters are influencing negative childbirth experience and traumatic response to delivery. The role of antepartum physiological stress parameters has, however, not been taken into account. Therefore, we aimed at studying the relation between the stress response of the hypothalamic-pituitary-adrenal (HPA) axis, anxiety and depression during pregnancy and obstetric outcome, childbirth experience, posttraumatic stress (intrusions, avoidance and hyperarousal) after the delivery.
Methods: The study includes data sets of 92 women. They participated in a prospective study with two appointments during pregnancy and one during the first week postpartum. In order to study the impact of stress sensitivity on the outcome variables, an experimental paradigm with a standardized stressor (Trier Social Stress Test, TSST) was part of the design.
Results: Univariate analyses show an association of a more pronounced antenatal cortisol awakening response (CAR), anxiety, fear of delivery, more negative and less positive affect and secondary caesarean section and negative experience of childbirth. Moreover, linear regression analyses showed that fear of delivery and a more

pronounced antenatal CAR predicted a more negative childbirth experience. Fear of delivery was mediated by state anxiety after stress exposure, which, together with cortisol awakening response, explained 16 % of the variance in the outcome of a more negative childbirth experience.
Finally, antenatal fear of delivery and a negative childbirth experience both predicted higher avoidance scores during the first week postpartum.
Conclusion: The results indicate that psychophysiological vulnerabilities contribute to the appraisal of the experience of giving birth and impaired psychological adjustment to birth. These associations may help to improve identification of women at risk for negative psychological response to childbirth and enhance the timely provision of care already during pregnancy. However, specific support for these women should be evaluated.

Innovative Means to Increase Access to Perinatal and Postpartum Depression Care

Chairs(s): Sona Dimidjian (University of Colorado Boulder)
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Aims: Perinatal depression (PD) is a serious and prevalent public health problem that has adverse consequences for both women and their children. Unfortunately, numerous studies have demonstrated that few women with PD receive treatment in general, and that rates of treatment seeking are particularly low among some subgroups of perinatal women, including adolescent mothers. Given the importance of identifying effective and accessible means of treating PD, this symposium highlights recent innovative intervention research, including the using online formats, embedding services in obstetric and social service settings, and leveraging women's interest in alternative and complementary practices such as yoga.
Methods: Sona Dimidjian will act as chairperson and discussant for this symposium. Heather O'Mahen will present findings from a randomized control study of online Behavioral Activation intervention for PD. M. Cynthia Logsdon also will highlight the use of online methods, presenting findings from a web-based intervention to improve attitudes toward PD in adolescents. With a focus on services embedded in obstetric and social service settings in order to increase access, Blair Kleiber will present findings from an open trial of a Dialectical Behavior Therapy skills class adapted for the treatment of adolescent mothers with PD. Finally, Cynthia Battle will discuss the use of complementary and alternative practices, with data from a clinical trial of prenatal yoga to treat PD.
Results: The data presented will highlight four promising and feasible interventions with both adult and adolescent mothers.
Conclusion: Although attention to the importance of screening for and treating PD has been increasing, the majority of perinatal women remain untreated, and this problem is particularly acute among some subpopulations of perinatal women.. Given the adverse consequences and correlates for both mother and infant, innovative research designed to increase efficacy and access is paramount.

Presentation 1: Feasibility of a Dialectical Behavioral Therapy Skills Group for Adolescents with Postpartum Depression

Blair Vinson Kleiber (University of Colorado Boulder), Jennifer N. Felder (University of Colorado Boulder), Brian Stafford (University of Colorado Denver), Sona Dimidjian (University of Colorado Boulder)
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Aims: Rates of postpartum depression (PPD) in adolescent mothers are high as compared to adult mothers. Approximately, 30 % to 59 % of adolescent mothers experience moderate to severe levels of depression symptoms (Leadbeater & Linares, 1992). PPD among adolescent mothers also is associated with increased risk of adverse consequences for mothers and their infants. Studies show that depressed adolescent mothers have difficulties in multiple domains including social support, parenting, and mother infant bonding (Logsdon, Birkimer, Simpson, & Looney, 2005; Spencer, Kalill, Larson, Spieker, & Gilchrist, 2002; Verzemnieks, 1999). Despite the prevalence and adverse effects of PPD among adolescents, few studies have examined interventions for this population. Dialectical behavior therapy (DBT; for review Thomas R. Lynch, Trost, Salsman, & Linehan, 2007) is an empirically supported treatment that has high relevance to adolescent PPD.
Method: Using an open trial design, this study (N=30) examines the feasibility of an adapted version of the Dialectical Behavioral Therapy (DBT) Skills Class for adolescent mothers with symptoms of PPD, implemented in the context of obstetric care and social service settings for adolescent mothers.
Results: The adaptation of DBT for adolescent PPD will be described. In addition, preliminary feasibility data will be presented including attendance rates, treatment satisfaction, and treatment compliance and preliminary outcomes across several domains of change will be presented including depression, social support, coping skill, perceived stress, and mother infant bonding.
Conclusions: Given the adverse correlates and consequences of postpartum depression among adolescent mothers and the paucity of clinical research with this population, this study is expected to help to identify innovative directions for increasing care for depressed adolescent mothers and their infants.

Presentation 2: Acceptability, Feasibility and Initial Efficacy of a Web Based Intervention to Improve Attitudes Toward Postpartum Depression in Adolescent Mothers

Cynthia Logsdon (University of Louisville), David Morrison (University of Louisville Hospital), Sara York (Jefferson County Public Schools), John Myers (University of Louisville)
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Aims: More than 400,000 live births occur to adolescents in the United States annually.1 Half of adolescent mothers experience symptoms of depression2 compared to depression rates of 13 % in adult mothers.3For some adolescent mothers, these symptoms are fleeting; for others the symptoms continue for at least a year.4,5 Unfortunately, few adolescent mothers receive depression evaluation and treatment.6 Untreated depression creates a public health problem in this vulnerable group impacting the adolescent's relationships, her functioning at work and school, health care seeking behaviors, her mothering skills, and her development as well as the development of her child.7,8 Barriers to depression treatment in adolescent mothers include lack of knowledge of depression symptoms (literacy), negative attitude towards mental health treatment (attitude), perception that individuals with depression are stigmatized (subjective norms), lack of understanding of health resources that are available to her and under her control (perceived control), and lack of time.9,10 An innovative and evidence based approach is needed that overcomes each of these barriers, is feasible, is acceptable

to adolescent mothers and leads to greater rates of depression treatment. The purpose of this study was to test the acceptability, feasibility, and initial efficacy of a web based intervention to improve attitudes towards depression and depression treatment in adolescent mothers.
Method: Participants included students enrolled in the Teenage Parent Program, part of the public school system (n=136). The study was approved by the University IRB, by school system, and participants provided assent.
Results: Feedback on the website indicated that it was easy to use (77 %), a website is a good place to learn about postpartum depression (88 %)and that attitudes related to depression and depression treatment improved after viewing the website (p=.023).
Conclusion: Though results are promising, study participants included adolescent mothers (n=136) who navigated the website in the school computer lab. The impact of the website on subsequent treatment for depression was not determined. In addition, generalizability of study findings should be tested in a more diverse group and access to the website needs to be more widely available.

Presentation 3: The Netmums Project: A Randomized Controlled Trial of Online Behavioural Activation for Postnatal Depression

Heather O'Mahen (University of Exeter), Esther Wilkinson (University of Exeter), Joanne Woodford (University of Exeter), Julia McKinley (Netmums.com), Mary Duggan (Netmums.com), Fiona Warren (Peninsula Medical School, University of Exeter), Rod Taylor (Peninsula Medical School, University of Exeter)
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Aims: Despite the high prevalence of postpartum depression, few women seek help. The internet presents an accessible method to deliver interventions for postpartum depression. We report a phase II evaluation of an internet Behavioral Activation (BA) treatment modified to address postpartum specific concerns (Postnatal-eBA). We will also present preliminary results of an evaluation of Postnatal-eBA + telephone based support.
Methods: A total of 1261 women recruited via a popular UK parenting site, netmums.co.uk, screened for depressive symptoms and scoring above the cut-off on the Edinburgh Postnatal Depression Scale (EPDS) were randomly assigned to receive either Postnatal-eBA delivered or treatment-as-usual (TAU). Primary outcome was depression at 15 week follow up (EPDS); secondary outcomes were anxiety (Generalized Anxiety Disorder Scale 7), functioning (Work and Social Adjustment Scale), and activity (Behavioral Activation for Depression Scale).
Results: Women who received Postnatal-eBA had lower depression symptoms at 15 weeks (Cohen's d=−0.55, 95 % CI −0.76 to −0.33), work and social functioning (Cohen's d=−0.29, 95 % CI: −0.66 0.08), and behavioral activation (Cohen's d=−0.44, 95 % CI: −0.08 to −0.81) compared to TAU. Although there was a trend towards lower anxiety in the Postnatal-eBA group than in TAU, this was not significant (d=−0.24, 95 % CI: −0.61 to 0.13) In the Postnatal-eBA group, 61.3 % of women were clinically and significantly improved for depression compared to 41.4 % of women in TAU. The Postnatal-eBA treatment was acceptable to women and feasible to deliver.
Conclusions: An unsupported, open-access internet behavioral activation program can be feasibly delivered to postpartum women to improve depression, functioning and activity but not anxiety.

Presentation 4: Development of a Yoga Intervention for Antenatal Depression

Cynthia Battle (Alpert Medical School of Brown University), Lisa A. Uebelacker (Alpert Medical School of Brown University)
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Aims: Treatment options for women with antenatal depression are limited, as many women have strong reservations about taking antidepressants during pregnancy. In fact, most depressed pregnant women do not seek any treatment. This lack of treatment engagement is concerning in light of the known adverse consequences when antenatal depression is left untreated. Prior research suggests that yoga may be useful in treating depression (see Uebelacker et al., 2010 for a review). Our own previous research has shown that prenatal yoga is viewed as highly acceptable, beneficial, and safe by perinatal women, even among those with no prior yoga practice (Battle et al., 2010). Although research has documented health benefits of prenatal yoga, no study to date has examined whether prenatal yoga is efficacious in reducing depressive symptoms. Our group is currently conducting an NIMH-funded treatment development trial to develop a prenatal yoga intervention for depressed pregnant women that we will ultimately evaluate in a larger RCT. In this phase, our primary goals are: to develop an intervention manual to guide yoga classes for depressed pregnant women, and to evaluate the acceptability, feasibility, and safety of the program.
Methods: Pregnant women with healthy singleton pregnancies and elevated depression symptoms take part in a 10-week yoga intervention, attending class gentle prenatal yoga classes 1–2 times per week. To date, we have written a manual detailing the program, and have trained 7 yoga instructors to administer the intervention. Through recruitment at community- and hospital-based prenatal care clinics, we have enrolled 34 pregnant women between 12 weeks and 24 weeks gestation in our initial open pilot trial. All participants have clinically significant depression symptoms at baseline and meet criteria for major or minor depression. (Quick Inventory of Depression Symptoms score >9). Thus far, 15 women have completed the full 10-week course of yoga classes, and the rest are continuing in ongoing yoga classes or have discontinued.
Results: Regarding acceptability, the intervention appears acceptable to both patients and care providers: all women were able to obtain approval from their prenatal care providers for participation. Qualitative feedback data obtained during exit interviews suggests women found yoga classes to be acceptable and helpful in symptom reduction. Regarding safety, no adverse events or injuries have been observed. No participants have experienced clinical deterioration, and completers have generally shown significant drops in depression scores.
Conclusion: If these positive trends continue, it suggests yoga may be an acceptable and feasible intervention approach. If proved efficacious when testing in a larger randomized trial, this prenatal yoga program may be relatively easy to disseminate and make available to a wide range of pregnant depressed women.

Contribution of Nurse Researchers to Advancing the Science of Perinatal Mental Health

Chairs(s): Cynthia Logsdon (University of Louisville Hospital), Gloria Giarratano (LSU Health Science Center), Cheryl Beck (University of Conn), Cindy Lee Dennis (University of Toronto)
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Nurse researchers have made significant contributions to advancing the science of perinatal mental health, creating evidence upon which to base nursing practice, and guiding the next generation of scholars. Four senior nurse researchers will share results of individual research studies that reflect examples of their research trajectories over time. Each nurse's research trajectory addresses an issue of perinatal mental health that continues to be of concern to women, families and caregivers internationally. The session will conclude with a discussion of the next best steps to push the science of perinatal mental health forward.

Presentation 1: Diaster and Diaspora: Mental Health Status of Childbearing Women Living Through Disaster Recovery

Gloria Giarratano (Louisiana State University Health Sciences Center), Emily Harville (Tulane University), Veronica Barcelona-deMendoza (Tulane University), Jane Savage (Loyola University of the South), Robert Maupin (Louisiana State University Health Sciences Center)
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Aims: (1) Examine the interaction of stressful disaster recovery experience (e.g., threats and losses, daily hassles, rebuilding, recovery, crime) social support and prenatal care in determining depression, pregnancy-related anxiety, stress levels and physical health. (2) Examine the stress reduction, self-selected health behaviors and coping strategies women use prenatally when living through long term disaster recovery, in post-Katrina New Orleans.
Methods: Cross-sectional data was collected from interviews with prenatal women (n=222, 24–40 weeks gestation). Measures analyzed included previous disaster exposure, depression (Edinburgh Depression Scale), post-traumatic stress disorder (Post-traumatic Checklist), pregnancy-related distress (Lobel scale), and their perception of disaster recovery. Linear regression was used to model mental health outcomes, with adjustment for race, marital status, education, employment, age, and smoking.
Results: Women were predominately African American (70 %), single (72 %) and with income <$15,000/year (58 %). Disaster exposure was moderately high: 29 % walked through flood waters; 61 % had some or enormous damage to their homes; and 10 % saw someone die. Mental health measures indicated 56 % scored "at risk" for depression (EDS>8), while 11 % were likely experiencing PTSD. Women who reported high exposure to Katrina scored significantly higher on the PTSD and pregnancy-related distress scales, and feeling that one's life was still disrupted (36 %) was strongly associated with depression and pregnancy-related distress (p<0.01), even after adjustment for experience of the hurricane. Life style practices such as smoking (14 %) was associated with depression and higher perceived stress (p<0.01). Higher social support, optimism about the future, and use of massage were associated with better mental health.
Conclusion: Both past exposure to hurricane disaster and current recovery status contribute to mental health problems. Pregnant women with a history of disaster exposure need ongoing mental health assessment and prenatal care that addresses this risk. Lifestyle choices such as smoking require further intervention to prevent perinatal risks.

Presentation 2: Intervention to Improve Self Efficacy in Hospital Based Perinatal Nurses Related to Teaching Women About PPD

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Aims: Internationally, many women don't receive treatment for postpartum depression (PPD) due to lack of knowledge of depression symptoms and available health care resources. Although in the western world hospital-based perinatal nurses have extended contact with new mothers, many don't feel prepared to teach mothers about PPD. The purpose of this study is to describe the development of a theory-based intervention to improve self efficacy and rates of teaching about PPD in hospital-based perinatal nurses.
Methods: At the completion of a pre-test and based upon Self Efficacy Theory, the intervention was developed by a work group of direct care nurses and nurse leaders. The intervention consisted of a presentation of the Postpartum Depression Policy at staff meetings by each clinical manager with support by the work group. The policy provided guidance for screening, education, referral, documentation, and interdisciplinary communication procedures. In addition, PPD education by computer module was required. The clinical managers followed the staff meetings with individual reinforcement of content.
Results: Based upon self efficacy theory, the pre-test results indicated that teaching new mothers about PPD was predicted by a nurse's self efficacy related to PPD teaching (r=.86, p=.001); expectations for teaching from their supervisor (social persuasion) (r=.55, p=.001); PPD continuing education (r=.29, p=.02) (mastery); teaching experience on other topics (mastery) (r=.50, p=.001); and experience with observing other nurses teaching patients about PPD (r=.49; p=.001) (vicarious experience). The most common response indicated that nurses taught women about PPD some of the time (32 %). The intervention, also based upon self efficacy theory, addressed social persuasion with explanation of the policy by the supervisor. Mastery was included by providing continuing education on PPD by computer module. Vicarious experience was addressed with modeling by the clinical manager and the involvement of direct care nurses in the work group.
Conclusions: In order to build evidence based practice, interventions to address perinatal mental health should be based upon theory, describe the interventionist, the participants, the content of the intervention, and how the intervention was delivered. This information provides a critical context in which to evaluate study outcomes.

Presentation 3: Another Scar to My Soul: A Mixed Methods Study of Secondary Traumatic Stress in Labor and Delivery Nurses

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Aims: (1) to determine the prevalence and severity of secondary traumatic stress in labor and delivery nurses, and (2) to explore nurses' descriptions of their experiences attending traumatic births.
Method: A mixed methods convergent parallel design was used. A packet of materials was sent by postal mail to a random sample of 3,000 labor and delivery nurses obtained from the membership list of

AWHONN. In the quantitative approach of this mixed methods study, participants completed Bride's Secondary Traumatic Stress Scale. For the qualitative approach, the nurses were asked to describe their experiences being present at a traumatic childbirth. Krippendorff's content analysis method was used to analyze the nurses' experiences of exposure to traumatic births.
Results: A random sample of 464 labor and delivery nurses completed this mail survey. In this sample 35 % of the labor and delivery nurses reported moderate to severe levels of secondary traumatic stress. Twenty-six percent of the sample met all the diagnostic criteria of the DSM-IV for screening positive for PTSD due to exposure to their traumatized patients. Content analysis of the participants' descriptions of being present at traumatic births revealed 6 themes: (a) Magnifying the exposure to traumatic births, (b) Struggling to maintain a professional role while with traumatized patients, (c) Agonizing over what should have been, (d) Mitigating the aftermath of exposure to traumatic births, (e) Haunted by secondary traumatic stress symptoms, and (f) Considering foregoing careers in labor and delivery to survive.
Conclusion: With 35 % of this sample of labor and delivery nurses reporting at least moderate secondary traumatic stress, nurses need to consider the possible impact their work may be having on them and take preventative measures to address their current symptoms.

3 keywords: secondary traumatic stress, mixed methods, labor and delivery
Any financial support: University of Connecticut School of Nursing

Presentation 4: The Relationship Between Postpartum Depression, Domestic Violence, Childhood Violence, and Substance Abuse: Epidemiologic Study of a Large Community Sample

Cindy Lee Dennis (University of Toronto), Simone Vigod (University of Toronto)
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Aim: The objective of this study was to determine the contribution of interpersonal violence and substance use to the prediction of postpartum depressive symptomatology.
Method: A community-based sample of 634 women in British Columbia, Canada were screened for interpersonal violence and substance use using the Antenatal Psychosocial Health Assessment (ALPHA) form.
Results: Of these women, 497 (78 %) subsequently completed questionnaires at 8 weeks postpartum to assess for depressive symptomatology using the Edinburgh Postnatal Depression Scale (EPDS). A predictive model for postpartum depressive symptomatology (EPDS> 9) was developed using regression analysis.
Conclusion: Findings suggest that women who experience past or current interpersonal violence or personal or partner substance use problems should be considered for targeted screening for postpartum depression.

Too Much Worry! Prediction, Detection, Prevalence and Implications of Perinatal Anxiety

Chairs(s): Vesna Pirec (University of Illinois at Chicago, USA), Maria Muzik (University of Michigan, USA)
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Aims: Perinatal anxiety, though commonly co-morbid with perinatal depression, remains less recognized and not appropriately addressed in many clinical settings, leading to various adverse consequences. This symposium will give a conceptual basis and provide clinical guidance on how to implement early detection of perinatal anxiety in clinical practice.
Methods: Drawing on extensive literature review, clinical material, as well as longitudinal clinical research utilizing perinatal data registries across various sites (UK, USA and Australia) we have put together a coherent set of talks emphasizing the clinical utility and importance of screening and diagnosis of anxiety symptoms and disorders among peripartum women.
Results: Collectively the four presentations will demonstrate that implementing screening and assessment of perinatal anxiety is feasible and provides crucial information that may guide most effective clinical care, be it in primary care settings, in perinatal specialty clinics, or residential placements. First, Dr. Pirec will discuss conceptual and clinical relevance to the study of peripartum anxiety and discuss experiences with the clinical implementation of screening for peripartum anxiety. Next, Dr. Muzik will illustrate the implementation of a perinatal clinic data registry that systematically captures anxiety screening data and relates them to concurrent illness severity and longitudinal outcomes. Next, Dr. Henshaw reports on risk factors predicting to peripartum anxiety disorder, focusing on postpartum blues. Finally, Dr. Barnett will discuss risk and vulnerability factors such as trait anxiety, poor self-esteem or perfectionism, for onset or worsening of peripartum anxiety and discuss implications for family unit functioning.
Conclusion: Perinatal anxiety appears to be a marker and/or risk factor for worsened perinatal mood disorder and course of illness. Thus, perinatal anxiety deserves systematic early detection and treatment with the goal of preventing the development of more severe peripartum psychopathology. Ultimately, this will improve mothers' quality of life in the postpartum and assist with establishing healthy and nurturing mother-baby bonds.

Presentation 1: Peripartum Anxiety: Are We Missing It?

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Aims: Peripartum anxiety is frequently undiagnosed, yet common and often precedes depression in postpartum. In some cases severe peripartum anxiety occurs to be an early symptom signature for subsequent full-blown psychotic illness. Being able to detect anxiety in peripartum among large population groups, understand and recognize at times subtle symptoms of anxiety and differentiate those from psychosis in postpartum is essential. Such accurate detection would allow for the development of more optimal treatment algorithms which would subsequently enhance wellbeing of these patients and their off-spring, as well as open new avenues for prevention in this area.
Methods: Review of literature confirms that while the study of depression during the peripartum has received appropriate attention over the past decades, peripartum anxiety has been less studied despite its common occurrence. Peripartum depression screening has been mandatory in the state of Illinois, as well as many other states and countries. However, screening tools currently used in peripartum are not tailored to detect perinatal anxiety. At the UIC we are in the process of implementing a pilot screening battery for peripartum anxiety while testing its feasibility and utility within primary care setting.

Results: We will illustrate clinical presentations of peripartum anxiety that would facilitate recognition of the psychopathological picture. Additionally, we will describe, based on our pilot implementation of perinatal anxiety screening, a systems implementation in primary care that ranges from systematized screening and assessment to a full psychiatric evaluation and further treatment when necessary. Our data obtained in urban primary care settings demonstrate a good track record in implementing brief depression screens and assessments within primary care setting and subsequent referrals to specialized care for positive screens, and improved treatment entry for peripartum depression. We are now aiming to demonstrate similar process with an implementation of a screening tool for peripartum anxiety.
Conclusion: Early detection of peripartum anxiety utilizing a user-friendly screening system for primary care, and diagnostic delineation from depression and/or early signs of psychotic illness will improve perinatal care and patient outcomes.

Presentation 2: The Development of a Screening Scale for Perinatal Anxiety Disorders

Susanne Yvonne Somerville (Department of Psychological Medicine King Edward Memorial Hospit), Rosemary Hagan (Department of Psychological Medicine King Edward Memorial Hospit), Elizabeth Oxnam (Department of Psychological Medicine King Edward Memorial Hospit), Kellie Dedman (Department of Psychological Medicine King Edward Memorial Hospit), Michelle Wettinger (Department of Psychological Medicine King Edward Memorial Hospit), Dorota Doherty (Women and Infants Research Foundation, University of Western Aus)
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Aim: To develop a self administered screening scale for anxiety disorders in the perinatal period for use in health care settings.
Rationale: Anxiety disorders are as common as depression in the perinatal period, indicating a need to identify and treat people with anxiety disorders. High anxiety levels in the perinatal period have been found to affect the psychological wellbeing of the mother, development of the foetus and obstetric outcomes. Antenatal anxiety has been found to be a significant predictor of postnatal depression. Research suggests problematic associations between prolonged elevated anxiety in pregnancy and accessing antenatal care, delivery complications, gestational age and birth weight and developmental outcomes for the child.
The EPDS is used widely to screen for depression in the perinatal period. It has not been designed to screen for anxiety symptoms. While there is some evidence that an anxiety subscale on the EPDS is useful, there is no elaboration on the type of anxiety being experienced via use of the EPDS for this purpose. Current general measures of anxiety rely on somatic symptoms which are common in pregnancy. A screening tool specifically designed to detect anxiety disorders in the perinatal period is required.
Anxiety disorders are not as unitary in construct or presentation as depression. Treatment approaches differ depending on the type of anxiety disorder. A screening scale which accurately detects the risk of problematic anxiety in the perinatal period and offers information on the type of anxiety disorder being experienced would facilitate appropriate referral and inform the clinical assessment process.
Method: This paper presents the development of a self administered Perinatal Anxiety Screening Scale (PASS) designed to detect problematic anxiety and provide information on the type of anxiety being experienced. ICD 10 diagnostic criteria, gold standard assessment tools and experienced clinician assessment wording were used to develop scale items.
Results: The first part of the scale development study with results on testing the scale on a hospital sample of 250 antenatal women with comparisons with the Beck Anxiety Scale and the EPDS anxiety subscale will be presented.
Conclusion: Anxiety disorders can be effectively screened for in antenatal women.

Presentation 3: Perinatal Anxiety: Predictor for Worse Illness Trajectory?

Maria Muzik (University of Michigan, Department of Psychiatry, USA), Katherine L. Rosenblum (University of Michigan), Zhuo Zhao (University of Michigan), Stephanie Thompson (University of Michigan), Leslie Swanson (University of Michigan), Heather Flynn (Department of Medical Humanities and Social Sciences, College of), Women's Mental Health and Infants Program WMHIP (University of Michigan)
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Aims: Anxiety symptoms are often comorbid with perinatal depression; yet detection and treatment of anxiety has received less attention than that of depression. No standard anxiety screening tool is available in perinatal care. Clinicians are aware of the high comorbidity between perinatal depression and anxiety and report worse outcomes for depressed women with comorbid anxiety. Yet there is a paucity of research on the moderating effect of comorbid anxiety on the course of perinatal depression. Using the UM Perinatal Clinical Outcomes Study (PCOS), a clinical research data base that collects data on all consenting women who present for clinical care to the UM Department of Psychiatry-Depression Center perinatal outpatient clinic, we explore the impact of baseline (time of initial presentation to clinic) anxiety symptom severity on concurrent levels of depression and sleep impairment. Furthermore, we analyze whether baseline anxiety level predicts depression and sleep impairment at 3 and 6 months follow-up.
Methods: On average 3–5 women are seen weekly in clinic, and 80 % consent to be included in the research registry. Data collection is ongoing; data on $n=82$ are available for preliminary analyses. Variables included in the present analyses are baseline (intake) demographics, anxiety (PSWQ), depression (EPDS, PHQ-9, QIDS) and sleep (Pittsburgh Sleep Q) self-ratings, as well as clinician-derived DSM IV diagnoses, and depression and sleep self-ratings at the 3 and 6 months follow-up. Baseline PSWQ score cut-offs group women into 3 anxiety severity levels: low (PSWQ<40), moderate (PSWQ between 40 and 60), and high (PSWQ>60) anxiety group. Using ANOVAs we explore whether PSWQ group membership at baseline among women with DSM-IV Mood Disorders predicts depression and sleep impairment at follow-up.
Results: Among women with Mood Disorder diagnosis, membership in high (PSWQ) anxiety group is associated with more concurrent depression symptoms ($p<.05$) and more sleep problems ($p<.10$). Moreover, high levels of baseline anxiety also predict worse sleep outcomes at the 3 months follow up ($p<.05$).
Conclusions: While preliminary due to ongoing data collection, these results are promising to shed light on the impact of co-occurring anxiety symptoms to the course of perinatal depression.

Presentation 4: Postpartum Blues: A Risk Factor for Depression and Anxiety?

Carol Henshaw (Liverpool Women's Hospital & Staffordshire University, UK)
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Aims: To review the relationship between postpartum blues, depression and anxiety disorders; including anxiety as a symptom of blues and blues as a predictor of postpartum anxiety and depression. Data will also be presented from a long term follow up study of postpartum blues, depression and anxiety.
Methods: Literature review & data from follow up study: 103 women with severe blues and controls (with no blues) who participated in the original study were contacted. Those who consented were interviewed using the Structured Clinical Interview for DSM IV (SCID) and completed the Premenstrual Assessment Form, the Work, Leisure & Family Life Questionnaire (WLFQ), Short Form 36 Health Survey Questionnaire (SF36) and the Strengths and Difficulties Questionnaire (SDQ relating to their first-born child). An analysis of the relationship between postpartum blues and subsequent caseness for anxiety disorders was undertaken.
Results: 146 (71 %) of the original sample were interviewed (mean 13.9 years after birth of their first child). 84 % of those interviewed met SCID caseness criteria at follow-up interview. Univariate analysis revealed that women with severe blues were more likely to have a diagnosis of generalised anxiety disorder (GAD) 6 months after the birth of their first child but not GAD (or any other DSM IV anxiety disorder) during the follow up period. Controls were more likely to have panic disorder.
Conclusions: The high level of caseness in early postpartum (6 months follow up) suggests that childbirth itself may increase vulnerability to long-term mental health problems, with blues an early marker of such vulnerability.

Symposium of the Spanish Marcé Society/Simposio de la Sección Española de la Sociedad Marcé Internacional

Chairs(s): Ibone Olza-Fernandez (Hospital Puerta de Hierro Majadahonda)
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The first symposium of the Spanish Marcé Society will be aimed at presenting the research pioneer groups of perinatal mental health are carrying in Spain. Research topics will include various areas varying from impact of maternal tobbaco consumption during pregnancy on postpartum mood to cross cultural aspects of IVF or studies of the effect of mode of delivery in early attachment interactions. The presentations language will be Spanish with translation to English. Marcé members from other spanish speaking countries are welcomed to attend.

Presentation 1: Cross-Border Reproductive Care and Psychological Distress

Gracia Lasheras (Department of Psychiatry, Institut Universitari Dexeus, Barcelo), Elisabet Clua (Department of Obstetrics and Gynecology, Institut Universitari D), Nuria Mallorqui (Department of Psychiatry, Institut Universitari Dexeus, Barcelo)
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Aims: Cross-border (CB) reproductive care refers to the travelling of patients to foreign countries in order to obtain fertility treatment. The aim of this study is to determine if seeking for treatment abroad is associated with a higher risk of anxiety and/or depression in CB patients when compared with local patients and if CB patients present a specific differential personality profile.
Methods: The week previous to the transfer, patients from IVF and Oocyte donation filled out a self-administered structured interview socio-demographic characteristics, reproductive background, psychiatric history and cross-border issues and responded to validated questionnaires to determine medical anxiety (STAI-E) (0–60), depression level (BDI) and personality profile (ZKPQ) (personality dimensions: Neuroticism-Anxiety, Activity, Sociability, Impulsive Sensation Seeking, Aggression-Hostility).
Results: A total of 163 questionnaires was analysed (73 CB patients and 90 local patients). The majority of CB patients was from Italy (97.3 %, 71/73) and came for legal reasons (64.4 %). Thirty two point nine percent (24/73) referred psychological discomfort related to travelling and being treated abroad, problems related to financial expenses (36.5 %, 26/73) and job related problems (11 %, 8/73).
Twenty one point nine percent of the CB patients showed depression (mostly low and moderate) vs. 35.6 % of the local patients, without significant differences
The average level of anxiety was significantly higher in CB patients (STAI-E :24.9, 8.6 vs. 19.9, 10.2; $p<0.05$). Specifically, CB oocyte recipients showed a STAI-E average significantly higher than local recipients (27.1, 6.8 vs. 18.7, 10.5;$p<0.05$).
In the personality profile, significant differences were found only in the activity scale this being higher in CB patients.
Conclusions: 1/3 of CB patients refer psychological discomfort related to financial problems and absence at work. This fact, together with reproductive background and the need for donors' oocytes, could explain a higher level of anxiety in CB patients. It seems necessary to develop psychopathological screening methods for CB patients in order to increase the safety and quality of CBRC.

Presentation 2: The Association of Postpartum Depression and Perinatal Tobacco Use: A Longitudinal Study

Maria Luisa Imaz (Hospital Clínic, and Institut de Investigacions Biomèdiques Augu), Lluisa García-Esteve (Hospital Clínic, and Institut de Investigacions Biomèdiques Augu), Estel Gelabert Institut Municipal d'Investigacions Mèdicas (IMIM-Parc de Salut), Rocio Martín-Santos Institut Municipal d'Investigacions Mèdicas (IMIM-Parc de Salut)
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In the general population, depression and anxiety are more common among smokers than non-smokers. Among pregnant women, current and former smokers are more likely to report depressive symptoms than never smokers (Zhu and Valvo, 2002). The postpartum period is a time of extreme vulnerability for a whole spectrum of psychiatric disorders including anxiety and depression (Navarro et al., 2009).
Aims: To determine if postpartum depression is associated with tobacco use in perinatal period.
Methods: Prospective cohort multicenter study of 1804 Spanish women of general population not under psychiatric care during pregnancy. Women mean (SD) age was 31.8 (4.6), 46 % were primiparous, 96.5 % were married and 68 % had at least high school level of education. Thirty-one per cent had family psychiatry history and 17 % personal psychiatric

history. Anxiety traits were assessed by the Spielberg-Trait Anxiety Inventory (STAI-T) at 2–3 days. Depressive symptoms were assessed by the Edimburgh Post-Partum Depression Scale (EPDS) Spanish version (Garcia-Esteve et al., 2003) at 2–3 days, 8 weeks and 32 weeks postpartum. Major postpartum depression (MPD) (EPDS>9) were confirmed through a structured interview (DIGS-DSM-IV). At 8 weeks 112 (7.9 %) women had MPD and at 32 weeks postpartum, 61(4.5 %) were new cases of MPD. Overall, 173 (12.7 %) had a MPD during the first 32 postpartum weeks (Sanjuan et al., 2008). The sample was divided in four groups: 1) No smoking 2) Smoking postpartum 3) Smoking pregnancy 4) Smoking pregnancy & postpartum.

Results: Fifty percent reported substance use during pregnancy: 42 % caffeine, 21.6 % tobacco, 8 % alcohol and 0.6 % cannabis, and 60 % during postpartum: 60 % caffeine, 28.2 % tobacco, 20.5 % alcohol and 1.8 % cannabis. No socio-demographic differences between women with MPD at 8 or 32 weeks were found. There were significant differences in tobacco use between groups and the presence of MPD both at 8 weeks (x2=17.872;df=3;$p<0.001$) and at 32 weeks postpartum (x2=15.582;df=3;$p=0.001$) were different. Logistic regression analysis showed that only smoking postpartum group had a risk four times higher of having MPD at 8 weeks postpartum (OR=4.3; 95%CI=1.91–9.66). Other independent variables in the model were personal psychiatry history (OR=2.53; 95%CI=1.55–4.22), family psychiatry history (OR=1.87; 95%CI=1.15–3.06) and anxiety traits (OR=1.12, 95%CI=1.08–1.16). The results at 32 weeks showed the same risk factors for MPD.

Conclusion: Tobacco use during postpartum is an important risk factor for major postpartum disorder at 8 weeks and 32 weeks after delivery.

Presentation 3: Selective Serotonin Reuptake Inhibitors (SSRI) Discontinuation During Pregnancy: Risk or Benefit?

Lluisa García-Esteve (Hospital Clínic, and Institut de Investigacions Biomèdiques Augu), Maria Luisa Imaz (Hospital Clínic, and Institut de Investigacions Biomèdiques Augu), Alba Roca (Hospital Clinic, and Psychiatry Service. Consorci Sanitari Tarra), Anna Torres (Hospital Clínic, and Institut de Investigacions Biomèdiques Augu)
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Aims: The purposes of this study were to describe the rates of reintroduction of SSRIs in women who discontinued when knows the pregnancy and compare the perinatal outcomes in pregnant women who discontinued SSRIs medication when knows the pregnancy with those who maintained treatment with these medications.

Methods: A prospective naturalistic study was conducted at Perinatal Psychiatry Program BCN-Clinic. Total sample was composed by 132 pregnant women, between 18 and 46 years old, with depressive or anxiety disorders (DSM-IV criteria) who received SSRIs at the time of conception. Exclusion criteria were the presence of serious medical illness, abuse or dependence on alcohol or other substances (except nicotine), miscarried and newborn deaths. The sample was divided into three groups: 1)Maintained ISRS; 2) Discontinued ISRS and 3) Discontinued and Reintroduced ISRS.

Results: Of the 132 women, 53 % ($n=70$) discontinued SSRI medication when knows the pregnany. Of these, 57.1 % ($n=40$) reintroduced antidepressant treatment during pregnancy, about half in the first trimester. Demographic and clinical characteristics did not differ significantly between the groups. Only unplanned pregnancy was associated with higher risk of discontinuation treatment (OR=2.7, 95 % CI=1.34–5.52). The perinatal outcomes evaluated (mode of delivery, gestational age at birth, birth weight, apgar scores and fetal acidosis) did not differ significantly between the three groups. The mean gestational age at birth was 38.5 (±1.98) for group 1, 39.2 (±1.88) for group 2 and 38.5 (±1.92) for group 3 ($p=.365$). The mean birth weight was 3034 (±511) for group 1, 3241 (±477) for group 2 and 3142 (±622) for group 3 ($p=.335$).

Conclusion: The SSRI discontinuation when pregnancy is knows was not associated with improved perinatal outcomes compared to maintained treatment. Women with unplanned pregnancy are more prone to discontinue treatment abruptly and have increased risk of relapse and the need for reintroduction antidepressant treatment across pregnancy. Reproductive Mental Health Program is necessary to decrease the number of unplanned pregnancies in psychiatric women at risk.

Presentation 4: Neonatal Attachment Behaviour Following Brief Maternal Separation

Ibone Olza Fernández (Hospital Puerta de Hierro Majadahonda), Lourdes García Murrillo (Hospital Puerta de Hierro Majadahonda), Valeria Costarelli (Hospital Puerta de Hierro Majadahonda), Ana María Malalana Martinez (Hospital Puerta de Hierro Majadahonda), Miguel Angel Marin Gabriel (Hospital Puerta de Hierro Majadahonda), Modesto Duran Duque (Hospital Puerta de Hierro Majadahonda), Isabel Millan Santos (Hospital Puerta de Hierro Majadahonda), Begoña Martinez Rodriguez (Hospital Puerta de Hierro Majadahonda)
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Introduction: Maternal-infant separation (MIS) is a highly stressing situation for the neonate. While the long-term effects of MIS on human neonates are still not fully understood, it appears to affect both maternal and neonatal behavior.

Materials and Methods: A prospective observational descriptive study was conducted to observe and describe the reactions of term neonates, both to brief maternal separation, and to restoration of skin contact within the first 48 h of life. The second objective was to assess whether the mode of delivery influences neonatal responsiveness to maternal separation. A maternal-infant separation situation was designed and videotaped to observe the reactions of the newborns within the first 12 and 48 h of life. The following items were observed in the newborns: the Moro reflex, spreading out arms and feet, looking at the mother, presence/lack of crying, and some dichotomous variables (present or lacking). The duration of crying on restoration of contact was measured. In mothers, the observer analyzed the presence/lack of: adult speech, "motherese" speech, speaking to other adult present in the room, singing, clicking, tapping on the diaper, rocking, kissing the baby, touching toes, touching hands, changing position, making loving comments, calling the RN by his/her name and touching his/her back.

Results: 10 neonates born by planned C-section and 21 neonates born by oxytocin-induced vaginal delivery were included. No behavioral differences were observed according to the mode of delivery. Neonates born by vaginal delivery took longer (64.8±8.6 sec) to calm down than those born by C-section (0.9±1.4 sec) ($p=0.004$). A correlation was observed between cortisol concentrations at birth and the time required to calm the baby down ($r=0.41$; $p=0.02$).

Conclusion: Neonates born by a planned C-Section cried less on maternal separation, which might indicate an altered response to stress. Further studies are needed to determine the potential longterm implications of variations in mother-infant attachment during the first days of life.

Biological and Molecular Effects of Stress in Pregnancy

Chairs(s): Carmine M Pariante (King's College London, Institute of Psychiatry, UK), Vivette Glover (Imperial College London, UK)
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Epigenetic changes are thought to account for the long-term effect of the early environment on later development and to explain differences in individuals' responses to similar experiences. In this symposium we will bring together data from studies showing potential mechanisms by which prenatal and postnatal exposure to stress affects clinical, biological and molecular outcomes, with relevance for both physical and mental health. Specifically, Dr Helen Sharp (Liverpool) will present data from the Wirral Child Health and Development Study, showing that in humans maternal stroking over the first few weeks of life modifies associations between prenatal depression and physiological and behavioral outcomes in infancy, hence mimicking effects of rodent licking and grooming. Following an animal model Professor Tom O'Connor will provide some of the first evidence in humans of how prenatal anxiety may have lasting effects on the health and development of the child by altering the development of the immune system. Dr Kieran O'Donnell (Montreal) will show the first data on the differential effects of prenatal maternal depression and postnatal attachment style at 18 months on genome-wide DNA methylation profiles in childhood. Finally, Dr Elisabeth Binder (Munich) will present studies, based on a US psychiatric cohort, that have identified gene expression biomarkers from peripheral blood for peripartum depression in women prospectively assessed during pregnancy and the postpartum period.
Justification
Prospective, longitudinal, epidemiological studies, beginning in pregnancy, are of vital importance in understanding the development of psychopathology. In this symposium we bring together a group of internationally well-known scientists from both basic and clinical research backgrounds, who are using such studies to explore the mechanisms by which experiences in utero and in the post partum affect later development.
Not only will the symposium be of interest to conference delegates interested in the origins and development of psychopathology, but also to those working in the field of prevention and intervention.

Presentation 1: Behavioral and Physiological Outcomes from Maternal Stroking in Infancy Mimic Effects of Tactile Stimulation in Animals

Helen Sharp (University of Liverpool, UK), Andrew Pickles (King's College London, UK), Michael Meaney (McGill University, Montreal, Canada), Kate Marshall (University of Manchester, UK), Florin Tibu (University of Manchester, UK), Jonathan Hill (University of Manchester, UK)
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Aims: Studies of animals and humans demonstrate sustained effects of prenatal stress on physiological stress reactivity and behavior in the offspring. In animals, these effects are modifiable by postnatal experience, notably in rats by maternal tactile stimulation. We aimed to examine whether, in humans, maternal stroking over the first weeks of life modifies associations between prenatal depression and physiological and behavioral outcomes in infancy, hence mimicking effects of rodent licking and grooming.

Methods: A general population sample of 1233 first time mothers were recruited to take part in the Wirral Child Health and Development Study at 20 weeks gestation. This consecutive sample was used to generate a stratified sample of 316 mothers for assessment at 32 weeks, of whom 271 provided data at 5, 9 and 29 weeks post delivery. Mothers were asked to report how often they stroked their babies at 5 and 9 weeks. At 29 weeks vagal withdrawal to a stressor, a measure of physiological adaptability, and maternal reported infant negative emotionality were assessed. Maternal depression symptoms were measured at each antenatal and postnatal time point.
Results: There was a significant interaction between prenatal depression and maternal stroking up to 9 weeks in the prediction of vagal reactivity to a stressor (p=.01), and maternal reports of infant anger proneness (p=.007) and fear (p=.043). In each case the direction of effects was the same. Increasing maternal depression was associated with decreasing physiological adaptability, and with increasing negative emotionality, only in the presence of low maternal stroking.
Conclusions: These initial findings in humans indicate that maternal stroking in infancy has effects strongly resembling the effects of maternal behaviours in animals, pointing to future studies of the epigenetic, physiological and behavioral effects of maternal stroking.

Presentation 2: Maternal Prenatal Anxiety and Infant Immune Response

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Aims: This work is part of a program of study examining how and if prenatal anxiety may have lasting effects on the health and development of the child via a programming mechanism. The novel feature of this study is that it is the first to systematically test the hypothesis that prenatal anxiety alters immune system development in the child. Based on animal findings, we hypothesized that prenatal anxiety would be associated with weaker adaptive immune response.
Methods: Mothers with a normal-risk pregnancy were recruited from a woman's health clinic at an urban hospital serving a disproportionately low-income, inner-city population; we over-sampled women with anxiety based on a screening questionnaire. Mothers exposed to Hepatitis B (including immunization) and infants with significant health problems that would compromise immune function were excluded. Mothers completed self-report measures of anxiety and depression and a psychiatric interview at approximately 20 and again at 32 weeks gestation, including the Penn State Worry Questionnaire. Children were assessed in a laboratory hospital visit at ages 2 and 6 months of age. Children's adaptive immune function is assessed according to the response to Hepatitis B vaccination following successive exposures. Because mothers in the study will not have been exposed to Hep B, the protective antibody response in babies will reflect only the de novo response by the infants. We assessed children at 2 and again at 6 months to capitalize on the immunization schedule. In practice, there was variation in whether the timing of the vaccination schedule was followed. Levels of anti-HepB antibody concentration produced in response to Hepatitis B surface antigen were detected in duplicate using the AUSAB enzyme immunoassay kit.

Results: Data on $n=135$ infants were available; of these, blood draw and Hepatitis B antibody titer was obtained on $n=80$. At the 6 month assessment, we found a significant effect of prenatal anxiety on HepB antibody concentration according to number of immunizations: prenatal anxiety was significantly negatively associated with antibody titer among those with limited vaccine exposure ($r=-.41$, $p<.05$); there was not a significant effect on those infants who had been exposed to the full vaccine course ($r=.15$, ns).
Conclusions: The findings provide some of the first evidence in humans of a link between prenatal anxiety and infant immunity.

Presentation 3: Distinguishing the Long-Term Effects of Maternal Adversity and Infant Attachment Style on Genome-Wide DNA Methylation in Childhood

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Background: Maternal early adversity predicts child emotional/behavioral development, often in association with genetic risk factors. This finding may arise from a direct effect on fetal neurodevelopment in utero or indirectly through altered postnatal mother-infant interaction leading to an insecure infant attachment style. The biological correlates of pre verus postnatal influences on child neurodevelopment are not well established. DNA methylation, the regulation of gene transcription through the addition of a methyl group to cytosine-guanine dinucleotides (CpG) is an epigenetic process that is sensitive to environmental stimuli. This study is the first to determine if there are differential effects of maternal early adversity versus postnatal infant attachment style on genome-wide DNA methylation profiles in childhood.
Methods: Participants were drawn from the Maternal Adversity And Neurodevelopment (MAVAN) study a Canadian prospective longitudinal cohort. Mothers were recruited during the final trimester of pregnancy and completed the Parental Bonding Inventory (PBI) and Childhood Trauma Questionnaire (CTQ). A principal component analysis was used to derive a single measure of maternal early adversity from the PBI and CTQ. Attachment style was determined using the Strange Situation at 18 months. At 8 years of age children provided buccal cell samples were collected and genomic DNA extracted. The methylation status of over 450,000 methylation sites (CpGs) was assessed using the Illumina 450K Infinium array providing genome-wide coverage.
Results/Conclusion: This work will provide the first data on the effects of maternal early adversity and attachment style on DNA methylation. The long term follow up of these children will determine if the DNA methylation profiles we describe are predictive of depression risk later in childhood/adolescence.

Presentation 4: Genomic Predictors of Peripartum Depression

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Aims: Peripartum depression not only has a strong negative impact on maternal well-being but also on fetal and infant development. Early detection, possibly by using biomarkers, coupled with timely treatment is therefore very important for both mother and child. The aim of the presented studies was to identify gene expression biomarkers from peripheral blood for peripartum depression in women prospectively assessed during pregnancy and the postpartum period.
Methods: Studies are of a high risk psychiatric cohort from the United States ($N=106$). Depressive symptoms were assessed prospectively from first trimester through the post-partum period using the Beck Depression Inventory as well as the mood module of the Structured Clinical Interview for DSM Disorders. Gene expression profiles in mRNA from peripheral blood was examined using real-time PCR as well as Illumina HT12.v4 gene expression arrays.
Results: Gene expression profiles indicated that the physiological pregnancy-associated regulation of glucocorticoid responsive genes is blunted in women suffering from depression during pregnancy. This included genes important in the regulation of the stress hormone system, such as FKBP5, BAG1, NCOA1 and PPID. This is likely caused by an enhanced glucocorticoid-resistance observed in depressed pregnant women using ex-vivo glucocorticoid receptor (GR) sensitivity measures. Gene expression profiling in non-depressed women in the third trimester, revealed that a set of estrogen-responsive genes can predict post-partum onset depression in pregnancy. This set of 116 genes predicted on postpartum onset depression 82.4 % sensitivity and 93.3 % specificity.
Conclusions: The presence of prenatal depressive symptoms appears to be associated with altered regulation of GR sensitivity. Peripheral expression of GR co-chaperone genes may serve as a biomarker for risk of developing depressive symptoms during pregnancy. On the other hand, third trimester expression profiles identified of a subset of transcripts which allowed high classification accuracy of women who developed postpartum depression. The fact that these transcripts were highly linked to estrogen signaling fits to the previous hypothesis that differential sensitivity to changing steroid levels is a vulnerability trait for postpartum depression.

Mental Disorders in the Perinatal Period: Effects on Mothers and Babies

Chairs(s): Susan Jennifer Pawlby (King's College London, Institute of Psychiatry, UK), Carmine M Pariante (King's College London, Institute of Psychiatry, UK)
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Exposure to a mother's mental disorder in utero and postpartum may have adverse effects on the offspring. In this symposium we will bring together data from clinical studies showing potential biological and environmental mechanisms by which prenatal and postnatal exposure to maternal diagnoses of obsessive compulsive disorder (OCD), eating disorders (ED), major depressive disorder (MDD) and postpartum psychosis (PPP) may affect offspring outcomes. Specifically, Dr Fiona Challacombe (King's College London) will show how OCD can cause high levels of maternal distress and preoccupation sometimes leading

to disruption in everyday parenting tasks. Dr Nadia Micali (University College London) will present data from the Avon Longitudinal Study (ALSPAC) and a clinical sample showing that women with ED (both past and current) have high depression and anxiety levels in pregnancy and the post-partum. Dr Susan Pawlby (King's College London) will show how the neonates of mothers depressed in pregnancy from the Psychiatry Research and Motherhood Study (PRAM-D) have sub-optimal regulatory behaviour at 6 days and how neonatal regulatory difficulties are associated with an increase in their HPA axis activity. Finally Dr Paola Dazzan (King's College London) will present data on the biological dysfunction that precipitates postpartum psychosis. In a new and ambitious imaging study she will show the brain structural and functional changes, and the stress and reproductive hormonal factors that are associated with the risk of developing this disorder.

Justification: Prospective, longitudinal studies, beginning in pregnancy, are of vital importance in understanding the development of psychopathology. In this symposium we bring together a group of internationally well-known scientists from clinical research backgrounds, who are using such studies to explore the mechanisms by which exposure to mothers' mental disorders in utero and post partum affect offspring development.

Not only will the symposium be of interest to conference delegates interested in the origins and development of psychopathology, but also to those working in the field of prevention and intervention.

Presentation 1: An Investigation into the Impact of Postnatal Obsessive-Compulsive Disorder (OCD)

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Background: Obsessive compulsive disorder (OCD) has been termed a 'rare yet severe mental disorder' known to significantly impair sufferers' lives and burden those around them (Torres et al., 2006). Recent research suggests that pregnancy and the postnatal period may be a time of increased risk for developing OCD. However, the effects on parenting and the mother-infant relationship are not yet well described. This task may be complex given the heterogeneity of the disorder which postnatally commonly presents around fears of the baby becoming ill via contamination or thoughts of deliberate harm. Many women are deterred from seeking help for their difficulties due to fears about their disorder and the impact on their baby and what may be inferred about parenting and/or risk by professionals. Lack of detailed disclosure and misdiagnosis are common. Research on the impact of the disorder on mother and baby is required.

Methods: Mothers mental state, interactions and perceptions of parenting were assessed in detail when their infants were 6 months old. Interviews on experiences of help-seeking were also conducted.

Results: Data from the first 20 participants will be presented. Mothers experienced moderate to severe OCD. Preliminary results indicate that mothers with a variety of OCD presentations report that everyday parenting tasks such as nappy changing, feeding and playing are impaired by the symptomatology of OCD. Reported behaviours include avoidance of touching the baby, preventing others touching the baby and delegation of everyday tasks. High levels of preoccupation are common.

Conclusions: OCD can cause disruption in everyday parenting tasks. Even for those where disruption is less evident high levels of distress and preoccupation caused by OCD impair the mother's quality of life. Any longer term effects on the infant are yet to be established. Identification and treatment of the disorder should be a priority.

Presentation 2: Depression and Anxiety in Pregnancy and the Postpartum in Women with Eating Disorders

Nadia Micali (UCL Institute of Child Health, London, UK), Abigail Easter (King's College London, UK), Emma Taborelli (UCL Institute of Child Health, London, UK), Amanda Bye (UCL Institute of Child Health, London, UK), Janet Treasure (King's College London, UK)
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Aims: The aim of these two studies was to investigate anxiety and depression in pregnancy and the postpartum in women with ED using two samples: a longitudinal cohort study and a clinical sample.

Methods: The first study used the Avon Longitudinal Study of Parents and Children (ALSPAC): a longitudinal, prospective study of 12,188 pregnant women. Women were grouped according to depression and ED history: past ED with (n=123) and without past depression (n=50), pregnancy ED symptoms with (n=77) and without past depression (n=159), past depression only (n=818) and unexposed (n=9,660). Maternal anxiety and depression were measured at18 and 32 weeks prenatally, 2 and 8 months post-partum. These scores were compared across groups over time using linear mixed-effects models.

The second study included 20 women with current ED, 25 women with past ED and 30 healthy controls. Self-reported state, trait and depression were assessed in mid and late pregnancy.

Results: In ALSPAC women with both past depression and past/current ED had high anxiety and depression across time perinatally; this was most marked in the group with pregnancy ED symptoms and past depression (b coefficient:5.1 (95 % CI: 4.1–6.1), p<0.0001), especially at 8 months post-partum. At 18 weeks in pregnancy all women (apart from those with past ED only) had a higher risk for a probable depressive and anxiety disorder compared to controls. At 8 months post-partum, pregnancy ED symptoms and/or past depression conferred the highest risk for a probable depressive and anxiety disorder.

In our clinical sample women with current ED and those with past ED had higher levels of depression and anxiety compared to healthy controls; the two index group were comparable on levels of anxiety. However women with current ED had higher levels of depression compared to women with past ED.

Conclusions: Women with ED (both past and current) have high depression and anxiety levels in pregnancy and the post-partum. Potentially modifiable specific moderators that influence high levels of anxiety and depression were identified. Targeted interventions are needed for this group, in order to avoid potentially adverse outcomes in mothers and babies.

Presentation 3: Exposure to Antenatal Depression, Neonatal Regulatory Behaviour and the Hypothalamic-Pituitary-Adrenal (HPA) Axis

Susan Pawlby (King's College London, Institute of Psychiatry, UK), Sue Conroy (King's College London, Institute of Psychiatry, UK), Enrica Fantini (King's College London, Institute of Psychiatry, UK), Sarah Osborne (King's College London, Institute of Psychiatry, UK), Patricia Zunszain (King's College London, Institute of Psychiatry, UK), Carmine M Pariante (King's College London, Institute of Psychiatry, UK)
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Aims: To examine the effect of exposure to antenatal depression on neonatal regulatory behaviour and their HPA axis, in order to improve the understanding of the mechanisms of developmental programming.
Methods: Pregnant women were recruited at 25 weeks gestation; cases had a DSM-IV diagnosis of major depressive disorder (MDD) during pregnancy and controls had no history of psychiatric disorder. Demographics and maternal mood were assessed at baseline. Offspring behaviour was assessed at 6 days post partum with the Neonatal Behavior Assessment Scale (NBAS), and neonate saliva cortisol was measured before and after the assessment. Offspring of case and control women were compared for regulatory behaviour during the assessment. Correlations were measured between neonatal behaviour and cortisol response.
Results: 80 neonates were assessed with the NBAS (51 control offspring, 29 case offspring). Non-parametric tests were performed for the analyses.
Compared with control offspring, case offspring were less alert (z=2.14, p=.03) less responsive to animate (z=2.58, p=.01) and inanimate (z=2.06, p=.04) stimuli and less mature in their motor responses (z=2.79, p=.005). The differences were not accounted for by gestational age.
Saliva cortisol was taken from 24 neonates just before the administration of the NBAS and immediately following. Overall, difficulties in neonatal regulatory behaviour (alertness, motor maturity, activity, irritability, lability of states) were significantly correlated with increased cortisol levels following the administration of the NBAS.
Conclusion: In support of current proposed mechanisms of foetal programming, these results show that exposure to maternal depression in utero is associated with suboptimal neonatal behaviour at 6 days. Moreover neonatal regulatory difficulties are associated with increased HPA axis activity.

Presentation 4: The Neuroimaging and Hormonal Predictors of Postpartum Psychosis

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Back in the 1980s Channi Kumar wrote that "studies of postpartum psychosis … indicate that the primary aetiology of psychotic breakdowns following childbirth is likely to be some form of physiological dysfunction". While much has been done in advancing our knowledge on the genetic predisposition that accompanies this disorder, not much has been done to understand the biological dysfunction that precipitates postpartum psychosis. Interestingly, postpartum psychosis is not only a devastating disorder, but the time of maximum risk is so well identifiable, that it is very surprising that there has been very little research attempting to characterize the biology and the prediction of development of this psychosis. We have started a study to try and fill this gap.
We have recruited a total of 36 women, in whom we are characterizing the brain structural and functional changes, and the stress and reproductive hormonal factors that are associated with the risk of developing this disorder. This presentation will discuss our findings in the context of other evidence of neuroimaging and hormonal indicators of increased risk to develop psychosis.

Antenatal Depression and its Consequences

Chairs(s): Paul Ramchandani (Imperial College of London)
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Increased Physiological and Psychological Response to Infant Crying Associated with Depressive Symptoms During Pregnancy and Predicted by Emotion-Related Cognitive Biases

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Aims: Heightened levels of depression are common in pregnancy and are known to carry significant infant developmental risk. Understanding the mechanisms through which antenatal depression contributes to adverse child outcomes, and identifying effective interventions to reduce such antenatal mood disturbance, has become a key public health priority. The aim of this study was to investigate whether there are specific emotion-related cognitive biases in the processing of infant-related stimuli associated with maternal antenatal depression and whether these predict responses to an infant-related stressor.
Methods: Fifty-four primiparous pregnant women were recruited at the John Radcliffe Hospital in Oxford and tested at an average of 15 weeks gestation (range 11–17 weeks). Depressive symptoms were measured using the Edinburgh Postnatal Depression Scale. Participants completed the Ambiguous Scenarios Task (in which they were required to rate the pleasantness of ambiguous scenarios) and the Prospective Imagery Task (in which they were required to rate the vividness of their images of hypothetical positive and negative future events). Participants were then shown a short film of very distressed, crying babies. Mood, anxiety and cortisol levels were measured before and after the film using visual analogue scales, the Spielberger Trait Anxiety Inventory and saliva samples.
Results: Women experiencing depressive symptoms during pregnancy rated ambiguous scenarios as significantly less pleasant than non-depressed women. In addition, women with depressive symptoms rated future negative events as significantly more vivid and future positive events as less vivid than the non-depressed women. In response to the distressed infant film, women with depressive symptoms showed an increased negative mood and heightened cortisol response compared to non-depressed women. Further, it was found that negative interpretation of the ambiguous scenarios significantly predicted the cortisol response to the film.
Conclusion: Task performance highlighted the presence of a negative cognitive bias in pregnant women with depressive symptoms. This bias was shown to be associated with increased psychological and hormonal responses to a distressed infant film. Such findings have important implications for our understanding of the impact of depression during pregnancy on the development of the mother-infant relationship and offer potential targets for non-pharmacological early interventions to reduce antenatal depression.

Presentation 1: Disruption to the Development of Maternal Responsiveness? The Impact of Antenatal Depression on Mother-Infant Interactions after Birth

Rebecca Pearson (University of Bristol), Jon Heron (University of Bristol), Roberto Melotti (University of Bristol), Carol Joinson (University of Bristol), Alan Stein (University of Oxford), Paul Ramchandani (Imperial College of London), Jonathan Evans (University of Bristol)
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Reduced maternal responsiveness in depressed mothers may explain the negative impact of depression on long-term child development. Antenatal depression is also associated with poor child development, independently of later maternal depression. However, the mechanism to explain this is unclear. One explanation is that depression during pregnancy leads to poorer child outcomes by disrupting the initial development of maternal responsiveness.

We used longitudinal data from a UK birth cohort (ALSPAC) to investigate whether antenatal depression is associated with reduced maternal responsiveness, independently of maternal depression close to the time maternal responsiveness was measured. The study included measurements of depression during pregnancy and after birth and an observation of maternal responsiveness at 12 months. The complete case sample comprised 875 mother-infant pairs.

Women with high depression during mid pregnancy, but NOT concurrently to the maternal responsiveness measurement, had a 30 % (95 % CI, 4 % to 62 %, p=0.021) increased risk of reduced maternal responsiveness compared to women with consistently low depression. This association remained following adjustments for mother, obstetric and infant variables.

The results suggest that depression disrupts the initial development of maternal responsiveness during pregnancy. Therefore, maternal responsiveness remained impaired in antenatally depressed women despite their depression improving. The measure of maternal responsiveness used here has previously been shown to be associated with later child development. The results may, therefore, provide another mechanism to explain the negative impact of antenatal depression on the child. This suggests it may be important to facilitate the development of maternal responsiveness in women who are depressed during pregnancy.

Presentation 2: Too Much or Too Little? Exploring Associations Between Prenatal Depression and Offspring Reactivity in the Developing World

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Introduction: Prenatal maternal depression is associated with an increased risk of psychopathology and disturbances in cortisol responses in children. The key candidate for these potential programming effects is the offspring's stress response mechanism. However the foetal origins of these influences are unclear. Furthermore, there are no studies investing this issue in low income countries.

Aim: To explore associations between prenatal depression and, (i) foetal responsivity and (ii) infant responsivity, in a rural developing world population in India

Methods: 67 pregnant women with high scores for symptoms of prenatal depression and 66 pregnant controls were assessed for their foetus' responsivity to stress in the 3rd trimester. Foetal stress responsivity was measured through foetal heart rate responses to repeated vibro-acoustic stimulation. Participants were followed up at 1.5–3 months post-birth. Data on infant cortisol responses to immunisation and infant temperament were collected, and mothers were assessed for postnatal depression. None of the mothers smoked or consumed alcohol.

Results: 36.08 % of women scored high for symptoms of prenatal depression.

There were no linear associations between prenatal depression and foetal responsivity. Prenatal depression predicted infant cortisol responsivity independent of postnatal depression (B=13.08, p=0.02).

A curvilinear (U shaped) association existed between prenatal depression and offspring reactivity. Foetuses and infants of mothers with very high and very low levels of prenatal depression showed increased stress responsivity as compared to the offspring of mothers with moderate levels of depression during pregnancy.

Foetal responsivity correlated with infant responsivity (r=0.37, p=0.02). Prenatal depression however did not effect this association (β=0.81, p=0.74).

Prenatal depression was not associated with low birth weight, postnatal growth and health of the infant and breastfeeding. Prenatal depression was not found to influence any of the dimensions of infant temperament based on maternal reports.

Conclusions: This is the first study to investigate the effect of prenatal depression on foetal/infant outcomes in the developing world. It provides intriguing evidence of a curvilinear association between prenatal depression and offspring reactivity.

Presentation 3: ANTICIPATE: A Pilot Randomised Trial of CBT for Antenatal Depression and Validation of Depression Screening by Midwives

Jonathan Evans (University of Bristol), Alison Noble (University of Bristol), Helen Baxter (University of Bristol), Kristina Bennert (University of Bristol), Heather O'Mahen (University of Exeter), Katrina Turner (University of Bristol), Paul Ramchandani (Imperial College of London), NIcola Wiles (University of Bristol), Debbie Sharp (University of Bristol)
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Background: Depression during pregnancy is common and has been linked to adverse health outcomes for mother and infant. This study aimed to and test the validity of screening questions for depression, recommended in national guidance (NICE 2006) for use during pregnancy and to pilot procedures for an RCT of CBT for antenatal depression

Method: Women completed a 3 item depression screen during midwife run 'booking' clinics and were then referred to the study. They then completed a psychiatric interview CIS-R and other questionnaires and measures. Those with a depressive disorder according to CIS-R and meeting inclusion were randomised to CBT or usual care. Follow up was at 15 weeks and 32 weeks post randomisation.

Results: During the year of the study of 6989 women 206 (2.9 %) screened positive on the 3 item depression screen from audit data.

176 women were referred to the study. 52 (29.5 %) screened positive on the three item screen. According to CIS-R, true prevalence of depression was 34.1 % (95 % CI 27.2 to 41.7), sensitivity 63.3 % (49.8 to 75.1) and specificity 87.9 % (80.2 to 93). Omission of the 'help' question increased sensitivity to 80.0 % (95 % CI 67.3 to 88.8), with a small loss in specificity (83.6 %; 95 % CI 75.3 to 89.6). Of the 52 screening positive, 36 were randomised to CBT or usual care. Of those receiving CBT 13/18 =72.2 % (49 to 87.5) completed 9 or more sessions. At 1st follow-up 11/16 (68.7 %) in the intervention had recovered from depression compared to 5/13 (38.5 %) in usual care (OR=3.5; 95 % CI 0.76–16.4). Following adjustment for baseline CIS-R scores, women who received CBT plus usual care scored 9 points

lower on the CIS-R (95 % CI −14.79 to −3.35, p=0.03) than those in usual care.
Conclusions: Midwives using 3 item screen are missing a large proportion of depressed women. The 3 item screen has only moderate sensitivity with help question put improves without this question with only small reduction in specificity.
It is possible to deliver CBT before end of pregnancy. There appears to be improvement in mood by end of pregnancy in those women receiving CBT.

Predictors and Moderators of Mood Disorders in Pregnancy and Postpartum

Chairs(s): Natalie Rasgon (Stanford University School of Medicine)
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There is no consensus regarding specific psychosocial or obstetric risk factors associated with recurrences during pregnancy. Unique or specific clinical management strategies to limit risk of recurrences of mood disorders during pregnancy or the postpartum period remain to be defined. This symposium will provide an up-to-date data review and discussion on the clinical predictors and biomarkers of perinatal mood disorders.
Dr. Katherine Williams will provide review of clinical characteristics of perinatal mood disorders, with an emphasis on "asking the right questions" in the differential diagnosis of unipolar from bipolar disorders in new onset perinatal depressions. Screening for mood disorders in specific obstetrical populations is especially important, including women with gestational diabetes, preeclampsia, preterm delivery, as well as personality dimensions. Specific focus will be on the outcomes of longitudinal clinical monitoring of pregnant depressed women receiving both pharmacological management and psychotherapy at the Stanford Center for Neuroscience in women's Health.
Dr. Barbara Parry will review differences in circadian rhythms between depressed women and controls as well as differential changes in neuroendocrine profiles from pregnancy to postpartum between groups.
Dr. Katherine Wisner will present results from a prospective observational study of the treatment experience of pregnant women with bipolar disorder to identify appropriate algorhythms of risk-benefit decision making for drug treatment in pregnancy.
Dr. Natalie Rasgon will then integrate data from others presentations to delineate specific questions before the clinical and research communities in accomplishing goal of preventative interventions in pregnant women with mood disorders.

Presentation 1: Women at Risk for Perinatal Mood Disorders: Are We Identifying the Right 'At Risk' Patients?

Katherine Williams (Stanford University School of Medicine)
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Depressive disorders are common in pregnancy and the postpartum and associated with potential acute and long term morbidity in both mother and child. Research has highlighted the importance of identification of 'at risk' populations in order to improve treatment outcomes.
Aim: Review the clinical course and presentation of perinatal mood disorders and the most recent findings regarding clinical characteristics of women at risk for perinatal mood disorders. Present data on clinical predictors of perinatal mood disorders from an ongoing observational study at Stanford University.
Methods: Literature review of recent studies examining neuroendocrine and psychosocial risk factors for mood disorders during pregnancy and postpartum.
Results: Identification of women at risk for mood disorders in pregnancy should be expanded beyond the now well-known clinical and demographic variables of previous history of depression and postpartum depression, family history and lack of social support to include personality dimensions, such as perfectionism, interpersonal dimensions, including marital dissatisfaction, and attachment style, including anxious and avoidant attachment. Screening for mood disorders in specific obstetrical populations is especially important, including women with gestational diabetes, preeclampsia, and preterm delivery since these patients are at increased risk of perinatal mood disorders and should be monitored in order to provide early interventions. Data on a longitudinal follow-up study of 85 women with mood disorders will be presented.
Conclusions: Future research should focus on expanding methods of identifying women at risk for perinatal mood disorders by expanding screening procedures to include personality variables as well as targeting high risk groups for monitoring.
Clinical emphasis should focus on "asking the right questions" in the differential diagnosis of unipolar from bipolar disorders in perinatal depression.

Presentation 2: Circadian Neuroendocrine Rhythms in Pregnancy and Postpartum Depression

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Objectives: The aim of this study is to test the hypothesis that women with a major depressive episode (MDE) during pregnancy or with onset during the first 3 months postpartum have disturbances in the phase (timing) or amplitude of biological rhythms (plasma melatonin, serum cortisol, thyroid-stimulating hormone-TSH, prolactin and sleep/activity) compared with normal control women matched for age (within 5 years) and pregnant or postpartum month.
Methods: In 58 women, 31 pregnant (7 depressed patients-DP; and 24 normal controls-NC) and 27 postpartum (14 DP; 13 NC), we measured plasma melatonin and serum cortisol, TSH and prolactin every 30 min in dim (<50 lux)/dark conditions from 18:00–11:00 h; reproductive hormones (estradiol, progesterone, follicle-stimulating hormone-FSH, and luteinizing hormone-LH) at 18:00 and 06:00 h; sleep (by polysomnography-PSG and subjective ratings) and activity (by Actillume).
Results: In pregnancy, DP vs. NC subjects had lower mean melatonin, somewhat lower peak and area under the curve (AUC); earlier evening cortisol, higher FSH and LH and poorer rest quality. Postpartum DP vs. NC had higher mean morning melatonin, somewhat higher AUC, shorter melatonin duration, somewhat earlier prolactin acrophase and poorer sleep and rest quality. TSH tended to be lower in DP vs. NC in both groups.
Conclusions: Differential changes in melatonin, prolactin, cortisol and reproductive hormones characterize pregnant vs. postpartum DP compared with NC women. Further work is needed on how therapeutic interventions might alter these neuroendocrine profiles and thereby mediate their beneficial effects.

Presentation 3: Bipolar Disorder During Childbearing: Are We Asking the Right Questions?

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Aims: Bipolar Disorder (BD) is a chronic disease and continuous medication administration is the mainstay of treatment, which presents a clinical conundrum during childbearing. Although the reproductive toxicity of medications is often highlighted in the literature, the greater problem for many pregnant women is accessing evidence based care.
Methods: Antimanic Use During Pregnancy was an NIMH-funded prospective observational study of the treatment experience of pregnant women with BD. The choice to use medication for treatment of BD was made prior to study enrollment and no treatment was provided by investigators. Medication choice did not dictate entry into the study, because all women (including unmedicated) with BD were eligible. Pregnant women with BD were evaluated at weeks 20, 30 and 36 gestation. Pharmacotherapy exposures were constructed for the preceding period of pregnancy at each visit to provide a picture of drug exposure for the entire gestation.
Results: Data from 135 women with BD were available. The following antenatal medication exposures were recorded: No psychotropic medication=64 %; FDA indicated treatment (lithium=3 %, atypical antipsychotic=13 %; anticonvulsant=3 %; total=18 %): non-indicated=18 %. At 3 months postpartum, the figures were: No psychotropic medication=47 %; FDA indicated treatment (lithium=6 %, atypical antipsychotic=13 %; anticonvulsant=16 %; total=35 %); non-indicated=18 %.
Conclusion(s): Consistent with general population data, evidence based treatment for BD in childbearing women was rare in this sample both during and after pregnancy. Several barriers to care were observed: 1) misdiagnosis of patient as having unipolar depression and the need for BD screening tools for pregnant women; 2) lack of education about the process of risk-benefit decision making for drug treatment in pregnancy; 3) problems accessing up-to-date information about drug use during pregnancy; 4) overall discomfort with drug prescribing in pregnancy, which lead to patient abandonment in some cases (even when women preferred to continue drug treatment). The issue we should be addressing is: Given the morbidity associated with BD for childbearing women and their offspring, can we develop decision support tools that continually update BD and drug reproductive exposure data as part of a BD management system that will enable clinicians to provide personalized care to guide pregnant women to optimize function?

Presentation 4: Tying it All Together: Creating an Optimal Management Paradigm for Women with Mood Disorders During Perinatal Period

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Background: While mood disorders are highly prevalent in women of childbearing age, pregnancy per se is not associated with an increased risk of new onset or recurrence of the mood disorders. Among women with clinically established mood disorders pregnancy is associated with high morbidity and recurrence rates. However, findings from most epidemiological and clinical studies consistently indicate that the postpartum period is a time of heightened vulnerability to relapse or new onset of mood disorders or acute psychosis as well as recurrences of pre-existing illnesses.
Aim: Integrating data on clinical characteristics and neuroendocrine biomarkers to identify populations at high risk for perinatal mood disorders.
Methods: Constructive summary
Results: Misdiagnosis (e.g. unipolar vs bipolar depression), medical co-morbidities and obstetrical complications (e.g. preeclampsia), chrono-biological dysregulation are among barriers to proper care during pregnancy and postpartum periods.
Conclusions: Proper differential diagnosis of mood disorders prior to conception or during pregnancy should take into account clinical, psychosocial and neuroendocrine characteristics to afford prophylaxis and optimal treatment of mood disorders in postpartum. Future research should focus on expanding methods of identifying women at risk for perinatal mood disorders by expanding screening procedures to include personality variables as well as targeting high risk groups for monitoring. Multidisciplinary approach and careful monitoring of groups at high risk for perinatal mood disorders will assure effective interventions both pharmacological and psychosocial.

Women's and Men's Expectations in Parenthood During Perinatal Period and Early Prevention

Chairs(s): Claude Schauder (Université de Nice, Sophia Antipolis)
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This symposium gathers participants of some of the teams committed in an international research, the aim of which is to specify what could be the most adapted answers to women's and men's expectations in parenthood during perinatal period.
Objectives:

- To make a presentation towards professionals of some facts relative to the specificities of these expectations and more particularly to present expectations around the question of becoming parents in countries belonging to different cultural spheres (China, France, Canada, Brazil).
- To Specify the determiners of these expectations and their real issues.

Methods: These statements of facts come from analysis of samples of these countries, each sample being composed of at least 20 series of five non-directive individual interviews, scheduled between the fourth month of pregnancy and eighteenth month of post-partum. These interviews were recorded, transcribed and codified according to a qualitative grid elaborated for the needs of the present research.
Results: The various contributions of this symposium show that, whatever the country, relations of the involved people with birth professionals are complex, often suggestive of anxiety or ambivalence and caused by:

- cultural, economic or political factors,
- factors related to care-givers (such as the attention paid to patients, their availability, the quality of delivered information),
- psychic processes of transference or identification at work.

They also reveal that questions dealing with becoming parents appear very prematurely in the course of pregnancy, but are not exclusively addressed to professionals.

Conclusion: Among other conclusions, still in need of development, these statements of facts lead to compare both what is revealed by analyses of expectations and existing prevention programs, in particular, those considering that parenthood is a matter of mastering "skills" likely to be evaluated and which are supposed to educate future parents very early.

Presentation 1: I'm Pregnant ! We're Pregnant!

Maria Izabel Tafuri (Universidade de Brasília (BRESIL)), Maria do Rosário Varella (Universidade Paulista), Janaína França, (Universidade de Brasília)
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Objectives: The statement "I'm pregnant," announces the recognition that one baby is coming for both men and women, safeguarding cultural and gender differences. In our study, we found out some extremely sensitive issues that can serve as a basis for prevention programs. The changes experienced by the woman in the body require a psychic work related to unconscious contents. The expressions "I still can not believe that I will be a mother","I still do not feel anything different," "I'm more worried about myself", represent repressed demands unmet by healthcares and, often, by the family and the society. In relation to men, the expressions "she is always the main figure", "All eyes are for pregnant women", "I'm in the background" reveals anxieties that are not being met neither listened by the professionals. In Brazil as a healthcare is offered only to mothers and babies, men are not included in perinatal health programs.
Results: Our research reveals this problem, men represented only10% of the sample. Brazilian's women complaints that men are absent, that they do not give enough attention, they do not help the way that women want, are very frequent, and can be understood in the context of a culture and a medical practice that do not include, a priori, the man in this process of becoming a father. In other words, from the moment men got the news, "I'll be a father," he does not have attention from healthcares both in relation to physical health (psychosomatic illnesses, for example), and also to mental health, to be heard in his feelings and anxieties. Paradoxically, today, the social pressure of parents' involvement in pregnancy, childbirth and baby care can lead to the emergence of unconscious psychic conflicts.
Conclusion: In conclusion, we stated that it is important to prevention programs to build a « multidisciplinary care network » and a receptive space, especially for men, to meet the repressed demands of process of "becoming a father" and "becoming a mother".

Presentation 2: Implication of the Only Child Policy Over the Relation Between Chinese Future Parents and Caregivers

Lanxi Deng (université de Strasbourg), Yikun Wu (Wuhan University(CHINE)), Fan, Yang (Wuhan hospital for psychotherapy (CHINE))
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Despite of the drastic measures taken as part of the policy of "only-child" which is set up in 1980, overcrowding remains a problem in China. Its annoying and sometimes harmful effects can be seen across the country who can still "handle it". Generally aware of what is required by their large number, the Chinese accept easily to comply with the restrictions, rules and constraints which are imposed upon them by this situation. Issues of the prohibition on having no more than one child does not exacerbate less concerns of families and increase the anxiety issues that submit the professionals who are always busy.
Objectives: This work seeks to determine what are the implications for the relations that the expectations have with the caregivers, regardless of their willingness and desire to help those who wait for long hours of consultation, does indeed have very little time for something other than technical moves and examinations that many of them judge too quickly. But these remain taken by the young Chinese who grow up in rationalism, for whom there is a source of reinsurance as well as those which are proposed by the tradition.
Results: Whatever the scientific education that can be theirs, it is to the tradition that many of these pregnant women are turning right now, especially when they have questions about the after birth, the caring of their baby and the becoming of a mother. One of these ancient practices that led some of them to make use of a kind of profession, called "woman of the Month" who is engaged exclusively in the private residence of the parents during the first weeks after birth, illustrates this point.
Conclusion: Analysis of the content and context of this choice will help us to clarify the role of objective factors and the weight of tradition in China in preparation for the birth and for the parenthood.

Presentation 3: Men and Women's Expectations Towards Professionals in the First Quarter of Pregnancy and Emergences of Becoming Father/Mother

Stéphanie Cortet Centre Hospitalier de Sélestat et Université de Strasbourg (FRAN), Barbara Graff (Centre Hospitalier Ravenel), Claude Schauder (Université de Nice, Sophia Antipolis)
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Objectives: This research applies to determine what are the expectations of men and women towards professionals during the time of the pregnancy, their modalities and their obvious and latent contents, and what these expectations teach us as for the appearance and in conditions of the emergence in the psychic device of the becoming mother or father, particularly in the first quarter of pregnancy.
Certain measures recommended by the argument of the Plan Périnatalité 2005–2007 of the Haute Autorité de Santé, set up in France, privilege the knowledge transmission (or know-how) supposed mitigate the eventual deficiencies or parental failures. Preparation's programs, indeed education of parenthood, propose to anticipate behaviours risking mortgage the installation of positive and healthy relations with the baby. Retaining the hypothesis that it is difficult, indeed impossible, to make reasoned propositions on the subject without a good knowledge of the concerned expectations and representations that support them, our works propose to precise the psychological, medical, social, cultural, historical and economical determinants.
Results: The analysis of the conversations allowed us to loosen the main expectations that have men and women have distinctly. More premature (from the 3rd month of pregnancy) and more frequent for the women, these expectations express themselves mostly indirectly, under the shape of reassurance, listening, empathy and holding. They often testify a regressive positioning where professionals are transferaly put in place of their parents. In the men's side, the expectations and the questions forwards the professionals concern as for them, massively on their competences and their technique's know-how, as long as regards the baby to come that their spouses. The doubts they

express about the trust they may have in them, often show projectively those whom they feed towards themselves as future fathers.
Conclusion: The relational mode and the expectations towards the professionals depend of the positioning of men and women towards parenthood. The expectations that they formulate evolve in measure of the construction of their becoming parent and bring to light the unconscious mechanisms in the work during the time of the pregnancy.

Presentation 4: Pregnant Women's Anxiety, in their Choice of Professional Who will Follow Their Pregnancy

Nicole, Reeves (Centre Hospitalier de l'Université de Montréal (Quebec)), Bénédicte, Boch (Université de Montréal), Virginie, Pelletier (Université du Québec à Montréal), Jeanne Theriault (Université du Québec à Montréal), Irène, Krymko-Bleton (Université du Québec à Montréal)
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Objectives: This qualitative research aims at investigating the unconscious motivations and the role of pregnant women's anxiety, in their choice of professional who will follow their pregnancy. What kind of "holding" do these women look for and how becoming mothers can be supported by the link and the feeling of security offered by professionals? In Quebec, an overwhelming majority of pregnancy follow-ups and childbirths are carried out by doctors. Childbirths assisted by midwives remain a marginal phenomenon. This profession was legalized only in 1999, after it had been forbidden in 1920. While there is a slight comeback of midwives, we observe an important emergence of birth partners ("accompagnantes"). Their role is to reassure, to give a feeling of security and to inform patients followed by a doctor any time.
Results: The study of interviews will allow us to investigate and to derive connections through what is said about anxiety in relation to parenthood. Ambivalence quite as demands of reinsurance and "holding" from the professionals must be interpreted as projections connected to the parental imagos. The almighty doctor may be sometimes idealized and sometimes considered a persecutor while the midwife or the "accompagnante", looked on as the Good Mother is also subject to ambivalence and intense projections. This happens in the context of Québec where we find offers of services stemming from opposing philosophies of care, which are divided between a medical technical vision and a holistic individualized approach.
Conclusion: Pregnant women formulate demands for the professionals which go beyond the security offered by science and technology. The deep identical reorganization starting right from the announcement of pregnancy contributes, quite as the resurgence of infantile conflicts, to a rise of anxiety and puts a great strain on the psychic structure. This greater sensibility revives the desire to be recognized as a subject, as a parent in constant evolution, and the necessity of a link through talking, becomes essential to establish an emotional security in the continuity.

Multidisciplinary Management of Psychological and Psychiatric Care during the Perinatal Period: Gironde's Experience

Chairs(s): Anne-Laure Sutter-Dallay (CH Charles Perrens and INSERM 657 Bordeaux), Elisabeth Glatigny-Dallay (CH Charles Perrens)
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Objectives: Describe the multidisciplinary psychological and psychiatric care health system setting in a French "département": Gironde (total of 1 315 000 inhabitants comprising Bordeaux's area: 660 000). This setting exists since 1997 and is organized around both, a Mother-Baby Unit (MBU) in an adult psychiatric hospital, and psychiatric liaison with Bordeaux University maternity (5000 deliveries/year).
Methods: This care network setting is based on multidisciplinary and inter-institutional partnership between psychiatric, obstetric, pediatrics and community teams. This partnership has developed itself around different common projects or common interdisciplinary interventions. Research projects, liaison psychiatric activity and staffing together about severe situations allowed us to know each other's field and to be regionally coordinated by a health network (ref loi). All this lead to efficient and recognized partnership by Ministerial authorities.
Results: This identification and approval by the authorities empowered us to open a 6 bed day hospitalization unit inside Bordeaux University maternity. This setting offering wide technical management of infant and maternal psychiatric and psychological care is quite unique in France. It does, in fact, give access to all primary care (coordinated screening of early postnatal and prenatal maternal vulnerabilities) and secondary care (rapid organization of joint care at home, of outpatient or of admission in day or full time hospital…) all this inside a social psycho medical supporting network.
Conclusion: Managing psychological and psychiatric care during the perinatal period is based on professional links and partnership. This enables a primary and secondary prevention procedure of maternal psychiatric and psychological disorders and a prevention of their impact on early child development.

Presentation 1: Liaison Psychiatry

Elisabeth Glatigny-Dallay (CH Charles Perrens), Ingrid Lacaze (CH Charles Perrens)
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Liaison psychiatry is a quite recent discipline and even more recent in perinatal psychiatry.
In Bordeaux University maternity it is organized by the perinatal psychiatry network.
We have now experienced this partenership with this maternity for more than 10 years.
Different members of our staff take part in this liaison: trained nurses, psychologists and psychiatrists. A specific multidisciplinary medico-psycho-social staff has been introduced with also social workers and community health services (liaison midwife and liaison nursery nurse).
All this work have positive impacts on, for instance, prevention of postpartum acute mood disorders as we anticipate follow up and coordination around care, but also on the management of women presenting psychosocial poverty and distress.

Presentation 2: Obstetrics and Perinatal Psychiatry Care

Dominique Dallay (CHU Bordeaux)
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The perinatal period is a period of mental health concerns. The challenge for obstetricians is to be able to differentiate adaptative symptoms from real psychopathology.

After 10 years of daily multidisciplinary collaboration with psychiatrists and psychologists, the obstetrical team has now a real knowledge of perinatal psychiatric disorders, and is therefore able to develop an active prevention, especially regarding mood disorders.
The presentation will discuss the main issues of this preventive work developped by obstetricians and midwives, especially the pregnant women's screening of sleep disorders and social support.

Presentation 3: Social Work in Perinatal Psychiatry

Nathalie Loustau (CH Charles Perrens), Céline Rimbaud (CH Charles Perrens)
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In France, women have access to social and financial helps as well as specific social protection during pregnancy. Social workers are at the center of this setting, and can belong to each of the institutions concerned by the perinatal period: maternity, neonatology, psychiatry, PMI (Maternal and child protection), ASE (social help for children) like foster cares …So, they are by obligation part of the multidisciplinary network of perinatal cares, with the crucial issue of finding a suitable "life project" for each family which takes into account the mother, the father, the baby and the social environement. This presentation will describe the specificities of perinatal social work, from the simple social accompagnement to the most complex situations, like foster cares.

Presentation 4: Perinatal Psychiatry and Clinical Care Network

Anne-Laure Sutter-Dallay (CH Charles Perrens & INSERM 657), Sophie Denard (CH Charles Perrens), Marie-Laure Pomey (CH Charles Perens)
Email: alsutter@ch-perrens.fr

Perinatal psychiatric care in Bordeaux are based on multidisciplinary and inter-institutional partnership between psychiatric, obstetric, pediatrics and community teams.
The identification and approval by the authorities empowered us to open a 6 bed day hospitalization unit inside Bordeaux University Maternity. This setting offering wide technical management of infant and maternal psychiatric and psychological care is quite unique in France. It does, in fact, give access to all primary care (coordinated screening of early postnatal and prenatal maternal vulnerabilities) and secondary care (rapid organization of joint care at home, of consultation or of admission in day or full time hospital) all this inside a social psycho medical accompagnent network.
This presentation will expose the different types of care provided in full time or part time hospitalisation (personal or in group psychotherapeutics approachs, management of medications during pregnancy), as well as the organization of the collaboration with community partners, and the project to come, around home hospitalizations.

Promoting Perinatal Depression Screening for Low-Income Women in Diverse Settings

Chairs(s): Darius Tandon (Johns Hopkins University)
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Aims: Several screening instruments have been developed to detect depression in perinatal women. However, there is limited information available on the appropriateness of these tools for use in different settings. This symposium includes three studies that examine feasibility, acceptability, and measurement issues related to conducting perinatal depression screening to identify major and minor depression in low-income women from different racial/ethnic backgrounds.
Methods: The first study by Le and colleagues describes their experience training staff at a Women, Infants, and Children (WIC) program to administer the PHQ-2 and PHQ-9. Although WIC programs serve nearly 50 % of infants born in the United States, systematic perinatal depression screening is not conducted. The mixed-methods study by Lara and colleagues examines the readiness of perinatal women receiving prenatal care in general hospital and primary health centers in Mexico to be screened for perinatal depression. The third study by Perry and colleagues examines the utility of a self-report measure—the Maternal Mood Screener (MMS)—for detecting women with clinically significant depression.
Results: The studies by Le et al. and Lara et al. illustrate the ability to successfully administer depression screening tools in different settings that serve perinatal women—in Mexico and the US. These studies also highlight several individual and institutional-level barriers to conducting screening that need to be addressed to facilitate systematic screening. Perry et al. demonstrate good sensitivity (0.82) and specificity (0.91) of the MMS for detecting major depression when compared to a structured clinical interview.
Conclusions: Perinatal depression screening appears to be feasible and acceptable in various settings commonly used by pregnant and recently delivered women. However, individual and institutional-level barriers need to be addressed to ensure successful administration of screening tools. Additionally, self-report measures such as the MMS appear to be reliable and valid in detecting women with clinically significant depression. Self-report measures can help reduce rates of undetected depression in community-based settings (e.g., WIC clinics, home visiting programs) where mental health specialists are not routinely available. Integrating depression screening into non-stigmatizing settings can address disparities in access to prevention and treatment.

Presentation 1: Integrating Screening for Perinatal Depression into Community-Based Settings: Lessons Learned from the Women, Infants, and Children's (WIC) Program

Huynh-Nhu Le (George Washington University), Deborah Perry (Georgetown University), Joan Yengo (Mary's Center for Maternal and Child Care), Bethany Sanders (Mary's Center for Maternal and Child Care), Kate Lieberman (George Washington University)
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Aims: The federal Women, Infants, and Children (WIC) program enrolls low-income pregnant women and new mothers at nutritional risk, serving nearly half of all infants born in the United States. One in five women in WIC reported postpartum depressive symptoms, but WIC does not currently screen women for depression. This presentation will describe our experience integrating depression screening into the WIC program at a Federal Qualified Health Center (FQHC) in Washington DC, USA.
Methods: The PHQ-9 (Kroenke et al., 2001) assesses the nine symptoms of the DSM-IV criteria for a major depressive episode. The PHQ-2 (Kroenke et al., 2003) is a two-item version (assessing depressed mood and/or anhedonia); a positive response on either question triggers administration of the PHQ-9. Using a mixed methods approach,

focus groups of WIC staff (n=7) and clients (n=8) provided qualitative data on the mental health needs of WIC clients. Transcribed data were analyzed using NVivo and inductive thematic analysis and consensus procedures. Quantitative data included baseline rates administration of the PHQ-2 and PHQ-9 at the FQHC in 2010 and the integration of the PHQ-2 by the WIC staff in 2011.

Results: Data from focus groups indicated that perinatal depression and anxiety are common and access to mental health treatment is limited. WIC staff reported not feeling qualified to administer a psychological screening questionnaire. A total of 1,957 PHQ-2s were administered throughout the FQHC in 2010. Of these, WIC staff completed 33 PHQ-2s (1.7 %). In 2011, as part of a research project, we trained WIC nutritionists to administer the PHQ-2 to their clients. Research data recorded 450 PHQ-2s with WIC staff completing 84.4 % (n=418) during the last 6 months of the year. Overall, 41 % of perinatal WIC clients scored positive on the PHQ-2. PHQ-9s were conducted for 128 clients. Using recommended PHQ-9 cut-off scores, one-third were at high risk (10–14), and 8 % needed a referral for additional mental health evaluation (>14).

Conclusion: High rates of perinatal depressive symptoms were discovered in WIC clients. Integrating the PHQ-2 and PHQ-9 can identify women in need of prevention and treatment. However, structural and attitudinal barriers must be addressed through training.

Presentation 2: Mothers' Recognition of Postnatal Depression, Perceived Barriers to Treatment, and Preferred Treatment Modalities in a Developing Country

M. Asunción Lara (Instituto Nacional de Psiquiatria, Mexico), Laura Navarrete (Instituto Nacional de Psiquiatria,Mexico), Yadira Ramos (Instituto Nacional de Psiquiatria,Mexico)
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Aims: Postnatal depression (PND) has received less recognition as a public health concern in developing countries than in developed ones, despite having similar prevalence rates (32.6 %; Alvarado et al., 2010) and the same serious long-term consequences to maternal and child health. To our knowledge, screening for PND is not generally performed within Mexico's health system. The present pilot study investigates the potential of some screening scales (Patient Health Questionnaire; PHQ-9) and the "readiness" of patients to being screened: their recognition of PND, acceptance of different treatment modalities, perceived treatment barriers, and reactions to being asked about PND during prenatal care in a general hospital and in a primary health center in Mexico. These research findings can be useful in designing more appropriate detection, prevention, and treatment strategies for PND.

Method: In this qualitative/quantitative study, 41 pregnant and 30 postpartum women receiving prenatal care in general hospital and primary health centers were interviewed. Apart from the PHQ-9, open and closed questions explored patients' recognition of PND (Oats, et al., 2004), acceptability of treatment modalities (Goodman, 2009), barriers to treatment (Berenzon, et al., 2009; Goodman, 2009), and reactions to being interviewed.

Results: Main findings indicate that 11.1 % had PHQ-9 scores ≥10 prenatally and 4.2 % postnatally; 90 % had heard the term PND; 67 % perceived it was not easy for women to talk about feeling depressed in this period, and 70 % thought that people didn't understand women who experienced such symptoms. Pregnant and postpartum women from hospital and primary health care settings expressed a willingness to be screened for PND. There was high acceptance of psychological therapy and low acceptance of medication during pregnancy or while breast-feeding. Main treatment barriers were: lack of time and inability to pay (pregnant and postpartum); not knowing where to go (pregnant); and not having childcare (postpartum). The 30-minute interview was described as good, interesting, and brief; interviewees liked being asked about PND.

Conclusions: PHQ-9 was easy to apply; data on predictive validity are being collected. Women are ready for PND screening as part of prenatal attention, but in order to move towards routine screening in Mexico, institutional barriers need to be analyzed.

Presentation 3: Validating the Maternal Mood Screener in Low-Income African American Perinatal Women

Deborah Perry (Georgetown University), Darius Tandon (Johns Hopkins University School of Medicine), Julie Leis (Johns Hopkins University School of Medicine), Tamar Mendelson (Johns Hopkins Bloomberg School of Public Health), Karen Kemp (Johns Hopkins University School of Medicine)
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Aims: The incidence of perinatal depression is roughly 15 % in the general U.S. population; however perinatal depression is even more common among low-income women and those in communities of color (Goyal, Gay, & Lee, 2010; Howell, Mora, Horowitz, & Leventhal, 2005). Unfortunately, the majority of women who develop clinically significant symptoms go undiagnosed and untreated (Marcus, Flynn, Blow, & Barry, 2003; Vesga-Lopez et al., 2008). This study assessed the validity of a lay-administered tool—the Maternal Mood Screener—for determining if a woman is meeting criteria for a major depressive episode in the perinatal period.

Methods: The Maternal Mood Screener (MMS) is a self-report checklist to assess depression using DSM-IV criteria A, C, and D (American Psychiatric Association, 2000). The MMS consists of questions related to nine DSM-IV symptoms for a major depressive episode and a single question on functional impairment. Study participants were enrolled in a randomized trial examining the efficacy of preventive intervention for perinatal depression. Pregnant women and women with a child <6 months old at high risk for depression were eligible. Women were enrolled in one of four Baltimore City home visiting programs. Seventy-five low-income, African American women completed the Maternal Mood Screener (Le & Muñoz, 1998) and participated in a Structured Clinical Interview for DSM-IV (SCID-I/NP; First et al., 2002).

Results: The MMS showed good sensitivity (0.82) and specificity (0.91) in detecting major depression when compared to a structured clinical interview. Eight of the 11 participants (72.7 %) diagnosed with major depression using the SCID endorsed feeling sad, blue, or depressed and the same number reported lost of pleasure or interest. All but one of the participants with clinician-diagnosed depression reported functional impairment due to their symptoms. The probability of not having MDD among those who test negative on the MMS was 0.97.

Conclusion: These data underscore the utility of the MMS for detecting women with clinically significant depression in community-based settings where mental health specialists are not routinely available. Self-report measures that help community providers identify women in need of referrals for treatment can reduce the rates of undetected depression.

Different Aspects of Peripartum Psychiatry and Psychotherapy (Symposium of the German-Speaking Group of the Marcé Society)

Chairs(s): Patricia Trautmann-Villalba (Institut für peripartale Interventionen), Christiane Hornstein (Psychiatrisches Zentrum Nordbaden, Wiesloch)
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Psychological problems and overt mental illness in pregnancy and the postpartum period constitute a major public health concern. These disorders are associated with marital problems, psychological problems of partners and with adverse effects on the cognitive, emotional and social development of the child and could be even a risk for child maltreatment. They directly negatively influence the intuitive parental competencies, the maternal capacity to interact with the baby, the mothers' feelings of competence as caregivers, and the interpretation of infant behaviours could be affected. Furthermore the disturbed relationship between an ill mother and her baby could have long-term consequences for the maternal mental health as well as for the infant's development. Hence the development of prevention and therapy programs that include the disturbed aspects of the mother-child relationship is indispensable. In this symposium not only different aspects of the disturbed mother-infant relationship will be presented but also the possibilities of treatment and prevention of these disorders: A systematic study of the interactional differences between depressive and psychotic mothers with their infants on a basis of a microanalysis of the observed behaviours, the improvement of the quality of the mother-child relationship after taking part in an interaction focussed therapy program for women with postpartum disorders, an extreme case of disturbed mother-child relationship, the neonaticide, and a possibility of its prevention and at least, risk and benefits of psychotropic drugs at pregnancy.

Presentation 1: Does Anonymous Delivery Prevent Neonaticide? A New Approach for an old Problem

Claudia Klier (Medical University of Vienna, Child and Adolescent Medicine), Grylli Chryssa (Medical University of Vienna, Child and Adolescent Psychiatry), Sabine Amon (University of Vienna, Faculty of Psychology), Christian Fiala (GynMed, Clinic, Vienna), Ghitta Weizmann (Vanha Vaasa hospital, Finland), Pruitt Sandi (University of Texas, Health Science Center's School of Public Hea), Hanna Putkonen (Kellokoski Hospital, Tuusula, Finland)
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Objectives: The first day of life is the day a person runs the highest risk of becoming the victim of homicide. Tragic incidents of neonaticide have led some countries to implement strategies to combat abandonment or killing of a newborn such as anonymous delivery or more recently, safe havens. After several highly publicized cases of neonaticide and abandonment, Austria implemented an "anonymous delivery" law in mid-2001 following a similar French law. Under this law it became legal for women to access antenatal care and give birth in a hospital anonymously, without showing any ID and free of charge.
Methods: A complete census of police reported neonaticides were obtained from the police statistics of Austria, Sweden and Finland. We compared the number of cases pre- (1991–2001) and post- (2002–2009) anonymous delivery legislation in Austria and across the three countries using Poisson regression analyses and Mann–Whitney U tests.
Results: On average the rate of police reported neonaticide rate was 7. (median=7.1, range: 2.5–13) per year in Austria prior to passage of the law and 3.1 (median=2.6, range: 1.3–9) were observed per year after passage of the law. A significant decrease was observed in Austria after the implementation of anonymous delivery (Mann–Whitney U test p=.017). No such change was observed in countries (Finland, Sweden) where anonymous delivery is not available.
Conclusion: Our data demonstrate a significant decrease in the number of police reported neonaticide cases in Austria following the implementation of the anonymous delivery law in mid-2001. This measure seems to be one of the very few effective interventions to reduce this crime.

Presentation 2: Disturbances in Partners of Women Suffering from Severe Postpartum Psychiatric Disorders

Patricia Trautmann-Villalba (Institut für peripartale Interventionen), Elke Wild (Psychiatrisches Zentrum Nordbaden, Wiesloch)
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Postpartum psychiatric disorders in women have obviously been more often discussed than postpartum psychiatric disorders in men. However, psychiatric disorders (especially depression) after birth are also experienced by men and may or may not be associated with a maternal postpartum disorder. Even though there is evidence that the rate of psychiatric morbidity is higher in new fathers who have postnatal psychiatrically ill partners; the prevalence of postpartum psychiatric disorders in men is not well known.
For this study, we assessed psychological distress (SCL-90) on a group of partners of severely ill postpartum depressive and psychotic mothers (N=40), who were in-patients of the Mother-Baby Unit at the Department of Psychiatry and Psychotherapy in Wiesloch, Germany, and participated in a longitudinal therapy study. Results showed that between 7.5 % and 35.% of the partners obtained elevated scores in all of the studied dimensions, whereby the highest figures were observed in the fields of hostility (22.5 %), interpersonal sensitivity (25 %) and depression (35 %). A correlation between paternal well-being and the improvement of maternal mental health could be observed. Levels of symptomatology were not associated with the diagnostic of the mother. After treatment, the levels of symptoms of the partners were reduced. It could be concluded that a routine screening and support for partners of women with postpartum psychiatric disorders may benefit not only the men but also their spouses.

Presentation 3: Mother-Child Relationship Quality Improvement as Effect of an Interaction-Focussed Psychotherapy Program for Mothers with Postpartum Disorders

Christiane Hornstein (Psychiatrisches Zentrum Nordbaden, Wiesloch)
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The bond to the infant as well as the interaction with the baby are two aspects of the mother-child relationship that could be disturbed by mothers with postpartum psychiatric disorders. Dysfunctional maternal cognitions may also influence the development of an emotional bonding and the establishment of a positive interaction with the child. Because interactional mechanisms are important in the transmission of developmental disorders, an early treatment is vital according to

preventative aspects of child well-being. Up to now only few possibilities exist for in-patient treatments, which include the therapy of the disturbed aspects of the mother-child relationship. The program presented here was especially suited for these mothers and focuses on the mother-child relationship. Parameters of mother-child relationship were examined at the beginning and the end of the therapy and compared by 53 mothers with postpartum disorders (33 depressive, 20 psychotic). Overall, the results pointed out a clear improvement of the assessed parameters for both, the psychotic mothers and the mothers with affective disorders at the end of the treatment. After the treatment, the quality of the interaction, the maternal bond to the baby as well as mothers' perceptions and beliefs about their parental capacity were significantly improved for both diagnostic groups. Considerations about the effect sizes of the therapy are not possible due to the study design. Although benefits of the treatment are clear, more controlled research may be needed.

Presentation 4: Therapeutic Drug Monitoring of Psychotropic Drugs During Pregnancy

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During pregnancy, serums levels of psychotropic drugs may change as a result of clinically relevant alterations in pharmacokinetics, particularly in hepatic metabolism via the cytochrome P-450 system, even though the drug dosage has been maintained. This can cause undesired adverse effects in the mother and induce fetal intoxication. However, an increase in these metabolism rates can reduce drug efficacy, which in turn can exacerbate the disease and promote all its negative consequences for mother and child. By employing therapeutic drug monitoring an optimal, individually adjusted dosage can be maintained in women who require treatment with psychotropic drugs during pregnancy.

6-Workshops

Decision Making Regarding Medication and Care in the Perinatal Period

Roch Cantwell[1], Ian Jones[2], Marie-Paule Austin[3], Louise Howard[4]

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Two recent national guidelines for the management of mood disorders in the perinatal period provide evidence-based reviews of the literature to guide clinicians. This workshop will compare their conclusions and use case-based clinical scenarios to discuss dilemmas in prescribing in pregnancy and breastfeeding.

Marcé Society Resource Pack: Content and Use of this Perinatal Guidebook

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The Resource Pack is intended to be another tool to advance the support for women's and their families' mental health during the perinatal period.
It has been in existence for over 10 years and was originally edited by Sandra Elliott and Carole Henshaw. It has now been updated by several members from differing disciplines of the Marcé Society, but is based on the original format. It concentrates on the spectrum of psychological and mental health issues which are known to impact on women and their families during pregnancy and following the birth of their infant.
The Resource Pack has 4 separate learning units. The first focuses on emotions and feelings, the second on psychiatric illnesses and emotion disorders, the third on skills and attitudes whilst the fourth looks at the practical aspects. The final section provides a range of websites and useful contacts.
Workshop
To promote the use of the Resource Pack, it is proposed to conduct a workshop which will cover the application of each Unit, outlining the philosophy and practical implications for the implementation of the Resource Pack into practice. Participation from delegates will be encouraged.
The workshop will have an international perspective as Jane Honikman (PSI USA) will include information about the PSI Curriculum and Jane Hanley (UK) will discuss the format and presentation

Maternal Mental Health Education for Professionals and for Members of Support Groups

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This workshop serves to bring together those involved in the education of women's health professionals and facilitators of social support networks in order to discuss strategies for increasing and effectively providing training on perinatal mood and anxiety disorders.
Postpartum Support International is a leader in designing and providing trainings to all levels of healthcare professionals on the topic of women's mental health. Their trainings specific to facilitators of social support networks have been particularly successful. Drs. Kathryn Hirst and Jessica Kingston have created a unique and successful curriculum for maternal mental health education for physicians in training in the fields of psychiatry, reproductive medicine and family medicine at the University of California, San Diego. This curriculum involves several different styles of teaching (such as 1/2 day workshop, lecture series, case presentations, immediate feedback assessment technique) and has led to a significant increase in knowledge on the subject and referral of patients to appropriate providers.
One goal of the workshop is to exchange information on established curricula. At the end of the workshop, a list of international teachers and training institutions will be created to facilitate long-term discussion and idea-sharing via a list-serve, on which participants will be encouraged to share ideas in the hope of improving education of all those who work in the field of maternal mental health.

Maternal Mental Health in Low Income Countries: Prevalence, Assessment, and Implementation of Support Programs

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This workshop will give participants the opportunity to discuss strategies for support and treatment to address the high prevalence of maternal mental ill health throughout the world. The International Maternal-Child Mental Health (MCMH) Working Group has recently been formed as a multidisciplinary and cross agency group that fosters global policies and practice in maternal care. The Working Group's members come from various disciplines, including clinical psychologists, social workers, nutritionists, public health experts, and consumers and organizations, including the CORE Group, Catholic Relief Services, CARE, Duke University, Johns Hopkins University, Postpartum Support International, University of Maryland, and World Vision. The MCMH comes together with a vision of a world of healthy mothers, children, and families that survive and t also thrive. Our mission is to promote national and local culturally sensitive policies, to develop and disseminate learning and research, and to implement practice aimed at maternal mental health in resource-constrained environments globally. Working Group members are active in international health at the community and government level, useing their international activities and influence to create heightened attention to the specific issues of antenatal and postnatal women globally. This workshop will call upon participants to discuss 1) the nature of maternal mental health difficulties globally, 2) the consequences of maternal mental ill health for women and their children, 3) approaches to identifying women in need for support in resource constrained areas, and 4) intervention strategies that have been or could be implemented, including social support networks integrated into other care options.

Unexpected Outcomes of Pregnancy: Impact on Parental Development

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This workshop will discuss unexpected outcome of pregnancies; the loss of a baby and how this impacts the pregnancy that follows, the birth of a preterm baby and a medically fragile baby. Sense of self as parent is greatly altered when these experiences happen as well as guilt over what parents might have done differently. Consequently attachment issues may be altered, especially to the baby that follows a perinatal loss. A model of attachment based intervention in the pregnancy following loss will be discussed and supported by research done on adults who were the child born after loss and parents raising children after loss who had intervention in their subsequent pregnancies. How professionals can create an alliance with parents to support attachment during pregnancy and in the newborn intensive care units will be addressed.

Participative Workshop: A Multidisciplinary Analysis of Complex Clinical Cases in Perinatal Psychiatry

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During the perinatal period, the mother and the baby (and also the father) are surrounded by many professionals whose priorities and technical focus differ:the general practitioner, the obstetrician, the mid-wife, the paediatrician, the social worker, the psychologist, hospital vs community care networks… Each professional may work with an implicit culture in his/her domain, in the hospital or the community context, finding it difficult to connect with others working for the same patient.
Connections between professionals may become more strained if the pregnancy is associated to a specific vulnerability:antenatal diagnosis of malformation, psychiatric problem of the mother, history of perinatal death, social problems, substance abuse…
Developing effective connections between professionals involved in such common but complex situations constitute a major task. This would not only be a more efficient way of allocating resources, but may also have specific therapeutic effects on the mother-baby dyades through prevention of anxiety or even trauma associated with the highly technical modern health care context.
With a focus on the prevention and appropriate care of major psychiatric disorders during the perinatal period, we will present case material and comment it step by step in this multidisciplinary workshop.
By working through in a specific manner the details of the each case presented, we will underline differences and potential complementarities in approaches of the professionals involved, try to clarify common misunderstandings or dead ends in collaborative work. Mutual understanding between professionals focusing on the "purely" medical or psychological aspects of the cases will be especially worked on.
This workshop will aim a rich interaction with the audience and put emphasis on enabling mutual teaching and attunement of practices.

7-Poster Sessions with Oral Discussion

Risk factors and predictors of depressive disorders in the first trimester of pregnancy in eastern Anatolia, Turkey

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Aims: Depressive disorder accompanying the hormonal and physiological changes experienced in pregnancy may have negative impact for both the mother and the baby and lead to undesirable results. For these reasons, it is important to determine the risk factors and predictors of depression within the cultural context of the pregnant women in order to ensure early diagnosis and treatment. In this study, our aim is to identify the risk factors and predictors of depressive disorders in women in the first trimester of their pregnancy.
Methods: A total of 463 women who were in the first trimester of their pregnancy were randomly selected for this study. Participants were administered the Structured Clinical Interview for DSM-IV (SCID) for the diagnosis of depressive disorders. Pregnant women who were diagnosed with a depressive disorder were administered the Hamilton Depression Scale, the Global Assessment of Functioning Scale, Brief Disability Questionnaire, and the Perceived Social Support Scale which was developed for Turkish population. A sociodemographic information sheet was completed for each patient to identify the risk factors associated with depressive disorders.
Results: The risk factors that were found to be associated with depressive disorders in this study were level of education, low income, early marriage, adolescent pregnancy, history of miscarriage, low education level of the spouse and exposure to violence. Previous mental illness, a history of mental illness during the previous pregnancy, unemployment of spouse, exposure to violence during current pregnancy and unplanned pregnancy were found to be the predictors of depressive disorder during the first trimester of pregnancy.
Conclusion: The first step in preventing depression in the pregnant population is to identify the women at risk. Identification of at-risk pregnant women in their first trimester and early treatment will reduce potential risks for both the mother and the infant. In terms of early diagnosis and treatment of pregnant women, it would be helpful to start depression screening programs that are run by specialists in our country.

Effects of Continuity of Care on Birth Experience

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Birth is a major event in a woman's life, sociallly, as much as physiologically and psychologically. the experience of such an event will have an important impact on her identity as a woman and a mother and most of all on the child's development (Racamier, Bydlowski, Revault d'Allones).
In this context, we have chosen to study the effects of maternity care during the birth period (pregnancy, delivery and days that follow delivery)
In France, maternity care conditions seem to be particularly medicalised with potential harmful psychological consequences for the mother and the child (Fort, Vande Vusse, Beck & Siegel). In order to estimate these effects we have compared two different care approach among women with a non pathological pregnancy and measured the impact on the birth experience.
Circumstances in which we have led this research brought us to reduce our cross-section to compare two groups of 5 women. Semi-structured interviewing allowed us to improve our research and compensate the statistic weakness of quantitative tools that however gave us the opportunity to give a first direction to further exploration.
Results have shown a positive effect of continuity of care, especially on the perception of pain and days following delivery. It also benefits the perceived control and support, effects that could be assigned to the confidence established betweeen the future mother and the care referent.
These results bring perspectives. Continuity of care effects in Maternity make us wonder about a care referent in chronicle disease as well as subsmission to medical authority and is consequences in France.
Beyond, our results could suggest a new dimension of perceived control that would be the notion of "active release". To conclude, the effects fo continuity of care puts once again the perinatal prevention in the heart of the discussion.
As a midwife and psychologist, our purpose is to share the experience of the benefits of continuity of care in birth experience. Crossing experience from the UK and France, we suggest that time, perceived control, and a trust relation between medical actors and patients can prevent pregnancy and postpartum psychological crisis.

Perinatal Mental Health in Turkey

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Turkey is developing country and Turkish people have different cultural features from Europe and Asia. Turkey has been experiencing a social and cultural transformation during the last century. Conjunctions with these changing values and expectations women also have had new roles and responsibilities.
Women's health has always been an important issue of the health policies in Turkey. Perinatal care is given free of charge and is widely available. 92 % of mothers receive antenatal care from health personnel during the pregnancy. About 85% of mothers and 90% of infants receive postnatal care from health personnel in the two months following the delivery in Turkey.
Turkey has some improvements in its health system especially to prevent early motherhoods, mother and infant deaths, to decrease the fertility rate, to increase literacy rate, to protect the families' domestic violence, to promote small entrepreneurship and, to educate the health personnel about perinatal care. Although significant advancements have been achieved, women still need support to overcome some problems related with their roles, status and health issues in the society. Pregnancy and birth related mental disorders still require more attention.
Research studies about perinatal psychiatry have been conducted all over the country. Most of them are related to prevalence and risk factors of postnatal depression. According to the studies, unemployment of the husband, low education, poverty, early age pregnancy, unplanned pregnancy, premenstrual syndrome, lack of antenatal care, history of mental illness, history of mental illness in first-degree relatives and adverse life events were associated with postnatal depression.
As a conclusion, depression prevention programs in perinatal period should become high priority issue in Turkey. Implementing community-based programs to meet the care needs of new mothers, including at least two follow up visits, giving education on psychiatric disorders related to pregnancy and, establishing departments on women's mental health must be a concern of health authorities.

Neurotoxicologic Effects of Intense Impulse Noise on Fetal Brains: Experimental Study

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Aim: Impulse noise causes severe neurological, psychiatric, cardiovascular, immunologic, endocrinologic disorders by causing neuronal injury in the cochlea, hippocampus, cerebral cortex and cerebellum. Occupational noise exposure causes to preterm birth, low birthweight, and malformations. We investigated if there is neuronal damage in brain of siblings of pregnant rats exposed to illegal impulse noise. Methods: 3 male and 8 non pregnant female adult rats included. Three rat families were examined as control (A) and two of study groups (B,C). B family were exposed to 85 dB and C family were exposed to 120dB impulse noise at doses of 10×20 min/day in equal time intervals for 1 month. They were followed for 1 month. Delivered animals were separeted together with their siblings and followed for 1 month in their personal cages at the normal day-night cyclus. Birth weights of siblings were recorded at every weeks and all female rats and their siblings were sacrified under general anesthesia. Their brains were examined histopathologically and result were analysed by Mann-Witney U test. Results: Seven rats of A family, six rats of B family and four rats of C family delivered between sixth and eighth weeks. The numbers of their living kids 7±2 in A, 5±2 in B and 3±1 in C family. Also, nonliving kid numbers of these families were 1±1, 3±1 and 5±2 consequtively. Body weight values of siblings were lower in B and especially C family. Brain volumes and neuronal densities of the hippocampus and cerebral cortex of the siblings of B to A and C to A&B families were lower. Differences of all parameters were meaningful ($p<0.001$). Conclusion: We concluded that intense impulse noise may cause infertility, abortion, low birth weight, neuronal injury, cerebral immaturation and microcerebri. We proposed that pregnant women should be protected from intense impulse noise during pregnancy in order to have healthy babies.

Characterization of Perinatal Mood Disorders

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Introduction: Semiology of mood disorders during the perinatal period remain poorly explored. The objective of this study was to explore clinical features of mood episodes in pregnant or postpartum women, addressed for "perinatal depression" to a specialized team.
Method: The thymic's characteristics of 110 patients were studied using the MAThyS (Multidimensional Assessment of Thymic States, Henry et al., 2007) assessing both depressive and manic symptoms through five basic dimensions (emotion, cognition, motivation, motor and sensory). This scale also assesses the presence of mixed features of mood episodes. An assessment of depressive symptoms was also performed using the EPDS (Edinburgh postnatal Depression Scale, Cox et al., 1987), with a cut-off of 12. Analysis using hierarchical clustering on means scores obtained on each dimension of MAThyS by each subjects and means comparisons were performed.
Results: Analysis showed 4 distinct clinical profiles: "adjustment disorders" ($N=56$), "depressed" ($N=24$), 'hypomania' ($N=6$) and "depression with mixed features" ($N=24$). The different groups differ regarding intensity of depressive symptoms despite the presence characteristics of mixed states even hypomania in some of the women. We do not find any influence of perinatal status (pregnancy or postpartum).
Conclusion: The existence of different mood profiles suggest a clinical heterogeneity of "perinatal depression" and especially the existence of mixed states or hypomania.

Mother-Baby Attachment and Perinatal Depression

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Aims: About 10–15 % of women experience depressive symptoms during perinatal period: only a small percentage of cases are identified and treated, with negative consequences on development of the baby and on the mother-baby relationship. We compared two samples of women: the first recruited at the first month of pregnancy, and the second at the first month postpartum. Both groups were followed up to 1 year postpartum. The aim was to investigate risk factors of affective disorders in perinatal period, and the impact of depressive and anxiety symptoms on maternal attachment.
Methods: Edinburgh Postnatal Depression Scale (EPDS), State-Trait Anxiety Inventory (STAI), Postpartum Depression Predictors Inventory-Revised (PDPI-R), Structured Clinical Interview for the Diagnosis of Axis I Psychiatric Disorders (SCID-I) and Maternal Antenatal and Postnatal Attachment Scale (MAAS, MPAS) were administered.
Results: 271 women recruited at the first month of pregnancy and 130 women recruited at the first month postpartum were compared at the first month postpartum. Postpartum data revealed that women enrolled during postpartum showed more vulnerability to risk factors respect to women enrolled in pregnancy, and had the worst attachment. Women enrolled in pregnancy period seem to perceive more partner, familiar and friend support, with lower difficulties in baby's health, temperament and sleep.
Conclusions: Early screening can allow to indentify women at risk to develop psychopathology, improving the possibility of management and treatment with positive consequences on the baby's development and the mother-baby relationship.

Internet Forum Discussion for Mothers (Maman-Blues Association)

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Le forum de discussion de l'association Maman Blues (www.maman-blues.fr) est un site parental de soutien autour de la difficulté maternelle (difficultés psychologiques, émotionnelles et identitaires de la maternité et dépression du post-partum). A travers les centaines de témoignages recueillis sur le forum, nous faisons un constat alarmant sur l'amont de la prise en charge de ce problème de santé publique qui reste, en 2012, toujours méconnu et tabou. Nous observons en effet que l'information et la prévention des troubles de la parentalité reste insuffisante, tant auprès des professionnels de santé que des parents. De ce fait, les mères identifient difficilement et tardivement la nature de leurs souffrances et le besoin de prise en charge pour elles et leurs bébés. Lorsqu'elles se décident à chercher de l'aide, nombre d'entre elles restent méfiantes et craignent les conséquences qu'auront leurs confidences auprès des professionnels. Qui pourra les comprendre, les aider ? Que va-t-on penser d'elles ? Vont-elles être jugées folles au point qu'on leur enlève leur bébé ? C'est sans doute en cherchant ces réponses qu'elles s'inscrivent sur le forum de Maman Blues. Site anonyme et gratuit, havre de sécurité, lieu de confidences et d'accueil où les souffrances psychiques maternelles ne font ni l'objet de méfiance ni de jugement, il est encadré par des mères bénévoles qui ont elles-mêmes connu ces troubles de la maternalité. Ce passage plus ou moins long sur le forum permet aux mères de comprendre qu'elles ne sont pas seules à souffrir dans leur maternité, qu'elles ne sont ni folles, ni mauvaises, ni indignes. Alors que leur appel à l'aide n'avait pu être entendu par leur famille ou par les professionnels qu'elles avaient consultés, les mères, lorsqu'elles s'en sont sorties, reviennent sur le forum pour témoigner que ce site et les échanges qui y ont eu lieu ont été pour elles une bouée de sauvetage, un lieu de partage, d'écoute et de soutien, un lieu où se poser et déposer sans crainte leurs souffrances, et un relais vers une prise en charge spécifique.

Results from Prospective Epidemiological Study of Adolescent Mothers and Postpartum Depression: Risk and Protective Factors

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Aims: Perinatal depression (PND), affecting approximately 15 % of mothers, is a leading cause of maternal morbidity/mortality and enduring negative child outcomes. Low-income, minority adolescents have increased prevalence of PND (estimates from 16 % to 74 %), escalating risks for negative maternal/child outcomes. Prior studies of adolescent mothers based on cross-sectional, small, heterogeneous, and/or isolated samples are problematic. This prospective epidemiological study aimed to accurately estimate the prevalence of adolescent PND and identify risk and protective factors for adolescent mothers and their children.
Methods: We recruited 250 pregnant adolescents from an urban public prenatal clinic and administered a prospective, longitudinal survey at two time points (prenatal and postpartum). Our survey assessed demographics, SES, depression, stress, social adjustment, and PND. We performed univariate, bivariate, and multivariate analyses using logistic regression to assess prevalence and predictors of PND.
Results: In a diverse sample of adolescents (28.7 % Black, 55.3 % Latina), 22.9 % screened positive for antenatal depression (AND) and 12.5 % screened positive at the six-week postpartum (PPD) visit. AND was positively associated with poor social adjustment (R=0.47; p<0.001), stress (R=0.38; p<0.01), and trauma (R=0.31; p<0.05) and negatively associated with self-efficacy (R=−0.44; p<0.001) and positive view of pregnancy (R=−0.52; p<0.001). The strongest predictor of PPD was AND (OR of 4.25, p<0.05). PPD was also associated with age (R=0.22; p<0.05), first pregnancy (R=−0.22; p<0.05), social support (R=0.50; p<0.001), and stress (R=0.38; p<0.01). PPD was negatively associated with positive view of pregnancy (R=−0.26; p<0.05). The multiple logistic regression model predicting AND was significant (p<0.001, pseudo-R2=0.43). The strongest predictor in the model was social adjustment (OR 1.14, p<0.05). The postpartum logistic regression model was also significant (p<0.001, pseudo-R2=0.5490).
Conclusion: Significant, malleable risk factors for PND include antenatal depression, trauma, stress, social support, social adjustment, self-efficacy, and perception of pregnancy. These factors should be targeted in prevention and intervention efforts. Point prevalence rates fell within the expected range antenatally but not at 6-weeks postpartum. Following mothers beyond six-weeks postpartum may be important in identifying high-risk adolescent mothers. Multiple screenings during pregnancy/postpartum are indicated and results suggest that antenatal screening may identify those at risk.

Adapting IPT to Treat Perinatal Depression in Low-Income Adolescents: Findings from a Mixed Methods Feasibility Study Conducted in Public Health Prenatal Care Clinics

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Aims: Perinatal depression (PND) is a leading cause of maternal morbidity/mortality associated with enduring negative child outcomes. Highest estimates of PND (44 %) are found in low-income, minority adolescents. PND increases adolescent mother's risk of negative maternal/child outcomes including poverty, abuse, and neglect. We aimed to test the feasibility of treating adolescent PND with a cultural and developmental adaption of brief interpersonal psychotherapy (IPT-B) using a mixed-method, case-series study design.
Methods: We recruited 21 pregnant, depressed adolescents from public prenatal care clinics. Prior to treatment, brief ethnographic interviews were conducted to obtain participants' perceptions of pregnancy, depression, mental health treatment. Participants received nine sessions of adapted IPT-B. Qualitative data was analyzed with NVivo7 using an iterative guided content analysis approach. We kept detailed records of recruitment, retention and case/supervision notes. Symptoms and functioning were measured pre-and post-treatment using: Center for Epidemiologic Studies Depression Scale (CES-D), Hamilton Rating Scale for Depression (HRSD), Edinburgh Postnatal Depression Scale (EPDS), Beck Anxiety Inventory (BAI), Social Adjustment Scale

(SAS). Paired t-tests were used to test mean differences at baseline and post-treatment.

Results: In a sample of primarily African American (46.2 %) and Latina (46.2 %) adolescents, 81 % of referred adolescents completed screening. Of these, 73 % were eligible for the study. Among the eligible participants, 88 % entered and 93 % completed. Thirteen completers experienced significant ($p<.01$) decreases in depression (EPDS $t(12)=4.4$; CES-D $t(12)=3.4$; HRSD $t(10)=3.5$) and anxiety (BAI $t(12)=3.3$) and increased social adjustment (SAS $t(12)=3.3$). Qualitative findings revealed themes related to desires for treatment and services that informed additional adaptations to enhance the intervention's cultural and developmental relevance. Findings supported an ethnographic approach to individual treatment and increased case management services to meet the multiple and complex needs of these young mothers and their children.

Conclusions: Successful recruitment and retention of depressed, pregnant adolescents combined with significant changes in depression, anxiety and social adjustment support the feasibility and promise of treating adolescent perinatal depression using IPT-B. Further intervention adaptations highlighted by the qualitative findings include: (a) involvement of family, (b) additional components on parenting enhancement and the impact of trauma on interpersonal relationships, and (c) expansion of case management.

Filling a Niche: Charmian Clift Cottages, an NGO Residential Facility for Homeless New Mothers with Mental Illness

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There are no publicly funded baby units in New South Wales. Homeless new mothers with psychiatric disorders are at a particular disadvantage and risk losing their children. Charmian Clift Cottages is a residential facility that admits up to 6 homeless women with mental illness and their infants for up to 6 months. The Richmond Fellowship of NSW manage the Charmian Clift Cottages as their Women and Children's program. A brief history of the Richmond Fellowship and the Women and Children's program will be presented.

Aims: To provide a visual display of the facilities provided at Charmian Clift Cottages. To describe the psychosocial program provided at Charmian Clift Cottages. To describe the demographic and clinical characteristics of the women that have had a residential stay at Charmian Clift Cottages.

Methods: A chart review was conducted on all women admitted to the clinic at Charmian Clift Cottages since Richmond Fellowship of NSW in 2008 took on its management.

Results: The demographic details and clinical characteristics of over 50 women that have had a residential stay will be presented.

The outcome of their residential admission will be presented.

The characteristics of the women whose infants were removed will be presented.

Conclusions: Charmian Clift Cottages provides a stable safe environment. The recovery focused and psychosocial approach contributes to the positive mental health outcomes for the women.

The focus on psychoeducational strategies and the use of a psychosocial framework that incorporates and nurtures the mother –infant relationship contributes to the mothers becoming more independent and able to care appropriately for their infants. In a minority of cases the infants were removed by child protection services. This facility provides an invaluable service for homeless women with mental illness. Without this intervention many of the women would have had their children removed from them and their disorder would not have been treated appropriately.

Birth Related PTSD: The "New" Postpartum Mood Disorder

Leslie Michele Butterfield

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Recognition of postpartum mood and anxiety disorders has increased dramatically over the past decade, yet little attention has been paid to birth related trauma and its outcome—postpartum posttraumatic stress disorder (PTSD). Recent research confirms that PTSD is a highly distressing postpartum mental health issue (Ayers, 2009 & 2011; Beck, 2004 & 2010; Gamble and Creedy, 2002; Szalay, 2011; Soet, 2003; Thomson, 2008) with an occurrence rate ranging from 5 % (Creedy, 2000) to 9 % (DeClerq, 2008). The possibility that actual occurrence is significantly higher will likely be borne out as preferred measurement methodologies are more widely utilized.

PTSD is typically associated with experiences of war, crime, or natural disaster. How provocative, then, to state that PTSD can result from the most natural of human endeavors—giving birth! Nevertheless, mental health and medical practitioners must recognize that there are occasions wherein the birthing woman experiences the same fierce elements that define these other situations: exposure to an event that involves "actual or threatened death or serious injury,or a threat to the physical integrity of self or others," and a response of "intense fear, helplessness, or horror." (DSM IV). For other women, birth re-stimulates prior trauma.

Whether postpartum PTSD is primary or secondary, today's healthcare practitioner must be prepared to correctly assess and treat this disorder—which is often misdiagnosed as either depression or bipolar disorder. Clients themselves, frustrated over lack of improvement from their treatment, learn about PTSD from the internet and local support groups. Healthcare practitioners lag behind in recognition and treatment of birth related PTSD.

Dr. Butterfield—a perinatal psychologist with 25 years of clinical and teaching experience will discuss the incidence and recognition of PTSD secondary to traumatic childbirth experiences. She will additionally address specific treatment modalities (prolonged exposure, EMDR, various forms of narrative therapy, and isolated implosion) that provide care and cure for postpartum mothers and fathers with PTSD.

Nondirective counseling to prevent postpartum emotional distress.

Factors Influencing Mothers' Psychological Adjustment to Very Preterm Birth

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Background: Difficulty in mother's psychological adjustment to the delivery of a very preterm (VP, <33w) infant is widely reported. Our aim was to identify risk and protective factors influencing acute stress and anxiety related disorders, including Post Traumatic Stress Disorder (PTSD) in a large cohort of women who delivered VP infants at a tertiary perinatal centre during 1993–1995.
Method: Participating mothers (N=225) completed a questionnaire battery, including the Impact of Events Scale (IES), and a blind diagnostic interview at four intervals during the first postnatal year: two-weeks, two, six and twelve-months. Interviews were structured according to the Schedule for Affective Disorders and Schizophrenia (SADS), administered by a Clinical Psychologist. Pregnancy and mental health history, SADS and IES data were examined.
Results: IES scores decreased over the 12-month period. At 2 weeks after delivery, 23 % of participants reported IES scores that met criterion for PTSD, while interview data diagnosed only 3 % of participants with an Adjustment or PTSD. In contrast, by 12 months, there was 60 % consistency between IES and interview data. Multivariate repeated measures regression identified depression with onset in the NICU, experience of active labour and cerebral palsy diagnosis as independent risk factors for raised IES scores. While depression with onset in the NICU was the only significant risk factor for IES scores meeting PTSD criterion. Desire to have a baby and success with breast-feeding was associated with reduced stress and risk of PTSD.
Conclusions: The IES was sensitive to acute stress early in the postnatal period for mothers of VP infants. However, between two and 12-months postnatally, the specificity of the IES improved as a screening instrument for Adjustment Disorders and PTSD. The onset of depression in the NICU was the most significant risk factor for high maternal stress following VP birth, and showed a five-fold increase in risk of PTSD symptoms.

Centre of Expertise on Maltreatment: An Innovative Initiative

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In 2008, the Centre jeunesse de Montréal-Institut universitaire set up a Centre of Expertise on Maltreatment (CEM) to pool the knowledge and skills of clinicians and researchers as a way of improving the assistance provided to maltreated children and their parents. Through work focusing on research, development of innovative practices, knowledge translation, assessment and teaching, the CEM seeks a better understanding of the causes of the problems of child maltreatment, how to address those problems and, if possible, prevent them. The approach is based on a clinical-scientific vision involving an ongoing dialogue between research and practice, given concrete form as "social laboratories," that is, projects of varying length devised and developed jointly by researchers, clinicians and managers. The presentation will focus on the CEM's first social laboratory: a specialized young child and family assessment and assistance unit. Also established in 2008, the unit sees all families with children aged 5 or under reported to the French-speaking child protective services system in the greater Montreal area. It assesses parenting skills for the purpose of determining families' potential for change. Various protocols have been implemented and validated by two researchers associated with the laboratory: Daniel Paquette, of the school of psychoeducation at the Université de Montréal, and Chantal Cyr, of the psychology department at the Université du Québec à Montréal. Mr. Paquette focuses on family assessment protocols, while Ms. Cyr measures the impact of relational intervention on families during assessment of parenting skills. The specialized assessment and assistance unit also has a manager, a dozen or so clinical social workers, consultants (psychologists and psychiatrists) and university-level trainees in fields such as psychology, social work and psychoeducation.

An Inpatient Mother Baby Psychiatric Unit in India: A Three Year Experience

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The First inpatient Mother Baby unit in India to offer joint mother baby admission with specialized services was started in Bangalore at the National Institute of Mental Health and Neurosciences in July 2009. Till date the unit has admitted 120 mother—infant dyads. The uniqueness of the unit is that in keeping with Indian cultural traditions, each mother- infant dyad also has a family member admitted to enable care of the infant and the mentally unwell mother. The family member is usually the mother, mother- in-law or occasionally the spouse.
The diagnostic distribution of the 103 cases is as follows-
Mania or Depression with Psychotic symptoms −48(47 %)
Acute polymorphic psychosis −30(29 %)
Schizophrenia and other psychosis −9 (9 %),
Depression −10(10 %)
Others (Dissociation, Personality disorders, Bonding disorders, Obsessive compulsive disorders)-6(9 %)
The age of infant ranged between few weeks to a year. The average duration of stay was 3 weeks. Infant harm was observed in 25 mother infant dyads. The infant health problems included infection (21 %), nutritional problem (1 %) and failure to gain weight (2 %).
Forty two (35 %) patients received ECT for suicidality, catatonia and excitement.
Some of the challenges faced in the unit included managing infant harm, infant health, restitution of breast feeding, facilitating bonding, involving families in future treatment planning.
Satisfaction surveys indicated that the services were valued by the patients and the families.

Evaluation of the Mother-Baby Relationship Through Interactive Play. Using a Scale in a Parent–Child Unit

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For the baby, play is different to that of the child. We can differentiate play involving a self-sensory, free activity play and interactive play. Through various authors, we attempt to define specifically what is an interactive play, its place and role in the parent–child relationship and in infant development. Interactive play is relational play involving the baby and an adult, such as peek-a-boo or tickling play. The baby appears capable of entering into this type of play from 2/3 months and of anticipating the sequence of events. Interactive play is a joyful parent-infant interaction sequence, which becomes habitual and repetitive, where on a particular theme, many variations occur, especially in the rhythm of the sequence. Interactive play appears to contribute to allowing the baby access to language (Bruner), to intersubjectivity (Stern) and to procedures of triadic function through groupal intersubjectivity (Fivaz-Depeursinge).
Then, we present a rating scale of the mother-baby interaction during an interactive play sequence: Pediatric Infant Parent Exam (PIPE, Fiese et al., 2001). In order to construct this scale, Fiese et al. started from the basic principle, demonstrated by research, that the sequences of parent-infant interaction typically involve a beginning, a middle and an end, each of which are identifiable (Cohn and Tronick, 1989; Field, 1987). We have used this scale in a broader research protocol involving the broader assessment of the development of pain over the course of one year and in three areas: Baby, Mother and Interaction (BMI, J.Rochette). This research is still continuing in the Parent–child Unit of the service of Professor Poinso, University Hospital of Marseille, France. Signs of pain in infants are detected using the ADBB: Alarm Distress Baby (Guedeney A. et al., 2001). For the mother, using the EPDS: Edinburgh Postnatal Depression Scale (Cox et al. 1987). PIPE is an interesting tool to use in a clinical population. We question its relevance, usefulness and limits.

The Use of Twitter® to Advance Perinatal Mental Health/Addiction Care and Research

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Background: Since its inception in 2006, Twitter® has seen an exponential growth in its use with over 200 million tweets now being sent each day. This web-based social media tool has been embraced worldwide, including by healthcare professionals and those in training; initially for personal networking and more recently for professional collaboration. In addition, a plethora of organizations, academic institutions, patient advocacy groups and even individual hospitals are becoming increasingly vocal on Twitter®.
Aims: To illustrate how use of Twitter® may benefit perinatal mental health/addiction clinical care and research.
Methods: Because most clinicians and scientists do not have formal training in social media engagement and do not use Twitter®, a brief overview of social media terms in general and an explanation of the nuts and bolts of Twitter® in specific are provided. Next, examples are presented of how Twitter® can be used by perinatal mental health/addiction clinicians and researchers to: 1) enhance professional collaboration (e.g., networking, reporting on conferences), 2) promote evidence-based medicine (e.g., gathering, disseminating, and expanding of the current relevant peer-reviewed literature), and 3) educate trainees (e.g., journal club, knowledge-sharing). These examples are followed by a demonstration of how Twitter® can engage patients and the general public in advocating for and raising awareness regarding perinatal mental health/addiction. Finally, there is a discussion of how perinatal mental health/addiction clinicians and scientists can manage and develop their own digital identity.
Conclusions: Despite its challenges, the use of social media tools like Twitter® by health care professionals and trainees has potential benefits, which can be harnessed to further the mission of perinatal mental health/addiction care and research.

Lamotrigine Dosing for Pregnant Patients with Bipolar Disorder

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Aims: Most of the data on the use of lamotrigine (LTG) in pregnancy comes from the epilepsy literature. There is limited data on its use in pregnant women with bipolar disorder. We present new data on the serum levels (total) of LTG in pregnant patients using monotherapy for bipolar disorder and review the current evidence.
Methods: LTG serum samples were obtained from four Caucasian mother-infant pairs at different time points during pregnancy and postpartum.
Results: Case 1—The maternal serum level-to-dose (L/D) ratios at 30 and 36 weeks, were 41 % and 67 % of maternal nonpregnant levels at 4 weeks postpartum, respectively. The serum level of LTG increased 59 % between 30 weeks gestation and 4 weeks postpartum. The nursing infant LTG concentration was 46 % of the maternal serum concentration at 4 weeks postpartum. No adverse events for the infant were reported. Case 2—The maternal serum L/D ratios at 20, 30, and 36 weeks were 15 %, 22 %, and 27 % of the maternal levels at 6.5 months postpartum, respectively. Postpartum, the LTG serum concentration increased five-fold between 2 weeks and 4 weeks postpartum. The infant was hospitalized 2 days after delivery for jaundice and dehydration. No subsequent adverse events were reported. The nursing infant LTG concentration was 18 % of the maternal serum concentration at 4 weeks postpartum. Case 3—Serum levels of the mother-infant pair were essentially equivalent (maternal serum=19.5 ng/ml and umbilical cord=20.5) at delivery. Case 4—The breastfed infant LTG concentration at 2 weeks postpartum was 45 % of the maternal serum level.
Conclusion: Consistent with the current literature these cases of bipolar disorder and lamotrigine treatment in pregnancy further support the prior evidence that: 1) LTG levels decrease in pregnancy then quickly

and considerably increase postpartum; 2) maternal and umbilical cord serum levels are essentially equivalent at birth; 3) a decreased proportion of LTG is transferred from the mother's breast milk to the infant in comparison to that transferred during pregnancy. The changes in LTG concentration in pregnancy and postpartum have implications for dosing LTG during pregnancy, postpartum, and lactation.

Stress, Cortisol and Cell Free DNA (CFD) and their Relationship with Pregnancy Rates in Women Undergoing In-Vitro Fertilization (IVF)

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Aims: To examine the effect of cognitive behavioral interventions (CBI) on stress (sera cortisol and self- report questionnaires), DNA integrity (sera cell free DNA (CFD)) and clinical pregnancy rates (sera βhCG+U.S).
Method: Fifty women undergoing in vitro fertilization (IVF) participated in a randomized controlled trial IVF groups (intervention and non-intervention IVF control) provided blood at three time points (T1=Low E2, baseline estrogen measure; T2=ovum pick up (OPU); T3=βhCG pregnancy test). 10 healthy controls with no known fertility or other health problems provided blood and answered questionnaires at two time points (follicular and luteal phase) in order to compare self-report (stress, depression, quality of life) and biological measures (cortisol and CFD) with the IVF population.
Results: Our research showed that sera cortisol and CFD levels were significantly higher in the IVF group at T3 in comparison to healthy controls. Depression was found to be significantly higher in IVF patients in comparison to healthy controls at both time points (T1 and T3). Cortisol levels of the CBI intervention group were significantly higher than the control group during the OPU (T2) while stress reduction techniques were employed. A correlation was found at T1 between general life satisfaction, social relationships and psychological health and cortisol levels in women undergoing IVF treatment. At T3, CFD levels were significantly higher in women who did not conceive in comparison to those who did.
Conclusion: Participation in CBI did not reduce stress levels or effect pregnancy rates of women undergoing IVF. However, at OPU (time 2) during the CBI, women in the CBI group had significantly higher cortisol rates. CFD may be an indicator of IVF failure.

Impact of Maternity Leave Duration on Women's Mental and Physical Health in the First Year After Childbirth

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Aims: To examine the association of leave duration with depressive symptoms, mental health, physical health, and maternal symptoms in the first postpartum year. Although more than one-half of employed U.S. mothers return to work by 3 months after childbirth, scarce research has addressed the association between maternity leave duration and women's physical and mental health after childbirth.
Methods: We employed a prospective cohort design. Eligible employed women, 18 years or older, were interviewed in-person at three Minnesota hospitals while hospitalized for childbirth in 2001. Telephone interviews were conducted at 5 weeks (N=716), 11 weeks (N=661), 6 months (N=625), and 12 months (N=575), after delivery. Depressive symptoms (Edinburgh Postnatal Depression Scale), mental and physical health (SF-12 Health Survey), and maternal symptoms were measured at each time period.
Results: The women averaged 30 years old, 86 % were Caucasian, and 46 % were primiparous. Two Stage Least Squares analysis showed that the relationship between leave duration and postpartum depressive symptoms is U-shaped, with a minimum at 6 months. On average, in the first postpartum year, every additional day of leave results in a decrease in depressive symptoms until 6 months postpartum. Moreover, there was a linear positive association between leave duration and mental health; women's mental health improved with every additional day of leave. However, leave duration was not associated with either physical health or maternal symptoms.
Conclusions: Taking leave from work after childbirth provides time for mothers to rest and recover from pregnancy and childbirth. The finding that additional leave days up to 6 months after childbirth may decrease postpartum depressive symptoms indicates that the current leave duration provided by the Family and Medical Leave Act, 12 weeks, may not be sufficient for mothers at risk for or experiencing postpartum depression.

Traditional Mental Peace in Pregnant Women

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In religious teachings,it is suggested that pregnant women spend their time listening to water sound,eating fruit and watching greenery. To compare the effects of artificial alternatives for water sounds and greenery for those living in the modern cities,the mothers who referred to health clinics with their pregnancy diagnosed were asked to follow a routine program until they gave birth. In this program,they were asked to listen to a tape of water sound and watch the green scenes on TV.On the second extreme of this research stood the women who had access to these in their work place only. Meanwhile,their husbands were instructed to read specific books in which the story happened in the farms and jungle with fruit trees. The husbands were ordered to focus on the descriptions of fruits and to explain the scene of eating fruits in details. The pregnant women were interviewed after their delivery to express their feelings during and after delivery and compared with those living in natural setting and with those deprived from both natural and artificial alternatives. The results showed that the pain of delivery was the least for mothers having lived in the nature and they had most delightful mood after their delivery. While mothers living in urban settings expressed their comfort in delivery in accordance with their job. The mothers who had listened to water sound had less confusion after delivery if they listened to the sound in post delivery period. All in all,the changes of color of work place or displaying water sounds at work could affect the delivery and post delivery comfort.

Borderline Personality Disorders and Attachment Disorders During the Perinatal Period

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Background: Many issues are interrogated when patients with borderline personnality disorders need cares during the perinatal period, especially regarding their conduct disorders, and intense and disrupted interpersonal relationships and acting out. The relational distortions of these mothers and the potential dysfunctions in their caregiving may indeed have a significant impact on infant's development.
Many studies have shown that disorganized insecure attachment would constitute a phenotypic marker of vulnerability in borderline personality disorders. By interacting with a possible biological vulnerability, this mode of insecure attachment could participate to the emergence of a psychiatric pathology such as borderline personnality disorders.
Objective: This work aims at showing the main contributions of the attachement theory in this domain.
Method: By a review of the litterature we would like to explore the link between dysfunctional caregiving of mother suffering from a borderline personality desorder and infant's developpment.
Results: Dysfunctional caregiving can be the base of an attachment disorder for the child. Early therapeutic intervention are needed in such situations to provide additional resources through mother and baby cares aimed at giving "a corrective experience of the attachment". Those issues will be discussed through a case report from the mother and baby unit in Bordeaux.

Pregnancy and Motherhood for Women with Severe Mental Illness: a Systematic Review and Meta-Synthesis of the Qualitative Literature

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Aims: Little is known about the opinions and needs of women with severe mental illness (SMI) in relation to the many complex decisions they must make when contemplating pregnancy. This study reviews the qualitative literature in this area and conducts a meta-synthesis which identifies a number of themes.
Methods: A systematic search of 11 databases was conducted up to Feb 3, 2012, complemented by citation tracking and contact with other researchers. The papers were assessed for quality using the CASP as a guide, and a meta-synthesis was conducted.
Results: The search produced 23 studies on the views of women with severe mental illness on the subject of having children, recruiting a total of 355 women. Six studies each came from the USA and the UK; 4 from Canada, 3 from Australia and one each from Sweden, Greece, Japan and New Zealand. A further 7 papers reported the views on pregnancy and childbirth issues affecting these women of 124 health professionals, comprising 55 Mental Health Case Managers; 39 psychiatric nurses; 10 psychiatrists; 15 midwives; 3 MBU nursery nurses, 1 antenatal manager and one obstetrician. Four of the studies were from Sweden, two from the UK and one from the USA (which reported on views of both patients and health professionals and was included in both sections). Analysis reveals a number of themes including: fear of custody loss and guilt from the studies of women, and awareness of stigma and anxiety at treating this group from studies of health professionals.
Conclusion: An understanding of the experiences of pregnancy and motherhood for women with severe mental illness can inform service development and provision to ensure the needs of women and their families are met.

Impact of Postpartum Depressive and Anxiety Symptoms on Mother's Emotional Tie to their Infants 2–3 Months Postpartum: A Population Based Study from Rural Bangladesh

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Purpose: The purpose of the study was to investigate the impact of depressive and anxiety symptoms on the maternal bonding to the infant 2–3 months postpartum, and the influence of the mother's bonding to the infant during pregnancy and to her own caregiver during her childhood on maternal bonding 2–3 months postpartum.
Methods: This study originated from a community-based cohort study carried out rural Bangladesh. Trained staff collected data and administrated the questionnaires during the third trimester of pregnancy, at childbirth, and 2–3 months postpartum. Maternal depressive and anxiety symptom was assessed with the Edinburgh Postnatal Depression Scale (EPDS) and the State Anxiety Inventory (STAI-S) and the mother's emotional bonding to the infant with the Postpartum Bonding Questionnaire (PBQ). A factor-analysis of the PBQ was conducted.
Results: The results showed that 11 % of the women reported depressive symptoms, 35 % anxiety symptoms, 3.4 % both depressive and anxiety symptoms and 51 % neither depressive nor anxiety symptoms. Mothers with depressive symptoms were older, poorer, fewer were literate and reported more intimate partner violence and showed lower emotional bonding to their infants 2–3 months postpartum compared to mentally well and anxious mothers. Approximately 11 % of the mothers reported mild bonding disturbances and nearly one third of them also showed depressive symptoms.
Conclusions: Depressive symptoms and giving birth to a girl were negatively associated to a mother's emotional bonding to her infant, while maternal anxiety symptoms and high bonding to the foetus during pregnancy were positively associated to the mother's emotional bonding to the infant 2–3 months postpartum. More knowledge about the interaction between depressive and anxiety symptoms is needed, as these two mood states with different biochemical profiles seem to have opposite effects on bonding between mother and child.

Does Maternal History of Childhood Abuse Affect Mental Health During Pregnancy?

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Aims: Previous studies have found that childhood adversities predict depression in adulthood, particularly in vulnerable periods, such as during pregnancy. We aimed to test this in a sample of pregnant women with and without depression.
Method: The study includes a sample of 58 pregnant women 26 with a diagnosis of depression, 14 "at risk" women with a history of depression but not depressed in pregnancy, and 17 healthy controls. Assessments made at 25 weeks of pregnancy included the Childhood Experience of Care and Abuse Questionnaire (CECA-Q; Bifulco et al., 2005), questionnaires about recent life events and intrusive life events and SCID I diagnoses.
Results: Women with depression in pregnancy had experienced significantly more adverse childhood and lifetime experiences compared with at risk women and healthy controls. They were more likely to have lost a parent before age 17 through separation or death ($X2=11.35$, $p<0.05$) and to have been sexually abused before age 17 ($X2=6.53$, $p<0.05$). They had had experienced a higher number of different family arrangements before age 17 ($X2=10.33$), and a higher total of intrusive events in their lifetime (one-way Anova: $F=10.10$; $p<0.001$). However, there were no diagnostic group differences in the number of recent life events experienced.
Conclusions: This study replicates previous findings that physical and sexual abuse histories are positively associated with pre-natal depression (Rich-Edwards et al., 2010) and that women with pre-natal depression are significantly more likely to have experienced bereavement of either parent in early life (Kitamura et al. 1994).

Pregnancy Denials Among Teenagers: More Teenagers or More Deniers?

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Despite the fact that in Western countries, age at first sex seems stabilised and that contraceptive use is rather high among young adolescents, rates of pregnancies among minors and even more rates of pregnancy terminations among very young teenagers, remain a concern. Furthermore, the question of pregnancy denial has recently busted in the public opinion of several European countries, often through tragic affairs of infanticides with high media coverage.
Pregnancy denial is defined as being pregnant after the first trimester without being conscious about it. The denial is partial if the woman realises she is pregnant before delivery, else, the denial is total. The overall estimated prevalence of pregnancy denials varies between 1/375 and 1/500 births.
Pregnancy denial is not specific to a particular category of women, specifically regarding their age at pregnancy, even if its main representation is still that of a young irresponsible and somewhat retarded teenager living in a disadvantaged disrupted family. However, the question of pregnancy denials among adolescents is worth asking as such and this population characterised, in particular because of its vulnerability.
This presentation, will first give characteristics of adolescent's pregnancies, then of pregnancy denials. It will then aim at characterising pregnancy denials among adolescents, from 15 cases collected in France. Last it will build on the main findings to help improve their prevention.

Early Intervention Program After Discharge Improves Parents-Infant Relationship and Behavioral and Cognitive Outcomes for Preterm Infants

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Aims: To investigate the effects of an psychological intervention 18 corrected months post hospital discharge on parental stress, parents-infant relationship and neurobehavioral outcome for premature infants.
Methods: Randomized, controlled trial. Infants born between 28 and 35 weeks of gestation. 33 infants were randomly assigned to the intervention group (INT) and 32 to the control group (C). Intervention: The INT group received bimonthly home visits until 4 months of corrected age and, then on, monthly visits at day care center until 18 months of corrected age. Outcomes:parent-infant relationship (PSI-SF), EPDS, perinatal PTSD, behavioral status [Symptom Check List (SCL)], cognitive development [Brunet-Lézine Révisé (BLR)].
Results: The mothers reported PSI-SF scores were significantly lower at 18 months in INT group than in C group [77.1±7.2 versus 93.3±13.8 ($p<0,0001$)] whereas there was no difference at 3 months. PSI-SF scores were similar in fathers.
If there were no significant differences at discharge [(9.0±4.4 versus 7.7±5.1 ($p=0.220$)] and at 18 months [3.7±2.6 versus 6.2±5.6 ($p=0.258$)] for EPDS scores between mothers in the INT group in comparison with mothers in the C group, INT group mothers scores decrease significantly throughout follow-up.
On the other hand, there was a significant difference at 18 months for EPDS scores in favor of INT group fathers ($p=0.005$), whereas there was no difference at discharge between the 2 groups.
For mothers, perinatal PTSD scores at discharge and at 18 months of age were respectively 4.9±3.7 and 3.8±2.5 in the C group versus 5.6±3.0 ($p=0.264$) and 2.0±1.7 ($p=0.007$) in the INT group.
SCL scores were significantly lower at 18 months of age ($p=0.001$) and BLR scores were significantly higher at 9 months of age ($p=0.047$) and at 18 months of age ($p=0.026$) in the INT group in comparison with C group scores.
Conclusions: Our early post discharge intervention program is effective at improving maternal stress, parents-infant relationship and neurobehavioral outcomes in preterm infants.

At Deaths Door—How Long can We Metaphorically Stand at the Door Without Knocking and Needing to be Noticed?

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Aim: to present four case studies of infants who were born with life limiting conditions so profound that tertiary hospitalisation was their umbilical chord to life.
The process of these infants imprinting with their parental system was confounded from at the very beginning by the intense and often painful medical procedures, parental shock and the intrusive hospital system.

Working with families who have an infant with a life limiting conditions has a profound effect on all practitioners.
The care of the dying infant evokes an emotional response from those involved in their care. I would suggest that without appropriate supervision of staff, the needs of an infant are easily morphed into the systems' needs thereby leaving the parent as a visitor to their infant.
The hierarchical nature and the value system within the hospital privilege's the medical voice over the parents and allied health. There are pain and palliative care teams which are usually led and directed using the medical model. The impending death of an infant is a psychosocial process that affects everyone involved. All too often practitioners' primitive anxieties come to the fore and take precedence over the infant and family.
In each of these cases the parents spoke of their lack of privacy due to the intrusive system. The parents were very clear that their concerns regarding the intrusive system were never to be mentioned for fear they would be viewed as difficult parents. The parents were overwhelmed by the long hospital stays and the prolonged process of dying. The longer a child stays in hospital the attachment and investment of staff are a reality. This requires sensitive management to ensure staff feel appreciated. But it is more important that the infant parent dyad is allowed to engage in a relationship on their own terms rather than one imposed by the system.
These cases highlight the need for a uniform approach based on evidence rather than the emotionally based practices that seep into the clinical management of such cases.

Planning for Optimal Management of Pregnant Women at High Risk of Postnatal Episodes of Mental Illness

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Aims: Most women at high risk of a postnatal episode of mental illness in Australia have access to both general psychiatric and obstetric care. The risks of perinatal psychiatric relapse may not be easily anticipated or managed by these generalist teams. Our small perinatal psychiatric service uses a model of supporting primary care providers via a written perinatal mental health plan that is produced following 1–2 assessment visits with the woman. Our primary aim here was to examine the characteristics and outcomes of the mother-infant pairs receiving assessments and perinatal mental health plans from our service. A secondary aim was to gain feedback from the women and their primary care providers concerning the perceived usefulness and acceptability of the plans.
Methods: The files of all 51 women receiving perinatal mental health plans from our perinatal psychiatric consultation service in 2010 and 2011 were reviewed. A questionnaire was mailed to all of the women to determine plan acceptability. The referrers were also surveyed for feedback regarding usefulness of the plan.
Results: The most common diagnoses were major depressive disorder (55 %) and schizoaffective or bipolar disorders (27 %). Common interventions made as part of the plan included referral to psychologist (34 %), referral to enhanced maternal-and-child-health nursing (54 %), and referral to general psychiatric services where these were not already in place (27 %). Surgical delivery and Special Care Nursery admission rates were high, at 44 % and 27 % respectively. Two babies were stillborn at term. 24 % of mothers had documented relapses of their psychiatric illness, and 12 % were subsequently admitted to a Mother Baby Unit. One pair was separated by court order at the time of follow-up. Survey response rates from the women and their providers have been low, though generally positive.
Conclusion: Women identified for this intervention proved to have a range of adverse events both obstetrically and psychiatrically. Our approach enables greater cross-linking of services and application of specialist treatment principles, and is greeted favourably. However, the outcomes here suggest there are grounds for more intensive combined obstetric and psychiatric services aimed at decreasing psychiatric relapse rates and improving obstetric outcomes.

The Women & Infants Hospital/Brown University Mother-Baby Unit in Providence (RI, USA)

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Recognizing that the US lags behind Great Britain, France and other developed nations in the treatment of women with perinatal psychiatric disorders on specialized mother-baby units, we will describe the design, implementation and status of a successful MBU in the US.
The Women & Infants Hospital (WIH) Postpartum Depression Day Hospital, a partial hospital model, opened in 2000 and was established as an extension of our existing perinatal outpatient clinic specifically for those women who needed a higher level of care but were reluctant to be admitted to traditional psychiatric settings since it required separation from their infants and treatment by non-perinatal specialists. Patients appropriate for our MBU do not require the intensity of 24 h inpatient care but are too impaired to be managed on a stricty outpatient basis.
Admission criteria and clinical components will be described along with data regarding average lengths of stay, programming, clinical and demographic patient profiles, treatment outcome, and patient satisfaction. We will also describe initiatives aimed at replicating our model throughout the US as well as in-process research protocols.
To date, we have treated approximately 4000 pregnant and postpartum women at WIH. These women are racially, ethnically and financially diverse and are admitted from both rural and urban settings. WIH satisfaction data indicates very high level of satisfaction (>92 %) in multiple areas of care.
Changes in demographic and clinical profiles since our opening 12 years ago will be presented.
Although US mother-baby units have been in existence for a relatively short period compared to our European counterparts, we are encouraged to see our model of care embraced by patients and their families as well as local obstetric providers, administrators, and health care insurers. Since the inception of our program, numerous inquiries from around the US suggest growing interest exists in developing similar mother-baby units.

In Utero Exposure to Lithium or Politherapy and Third Trimester Fetal Biometry

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Introduction: Insulin-dependent diabetes, obesity and gestational diabetes are factors associated with macrosomia. Some drugs could have a similar effect. However, information about the perinatal effects of lithium is limited.
Aims: To determine the effect of in-utero exposure to lithium on fetal biometry among infants born to women with maintenance treatment with lithium.
Methods: Prospective observational study including 18 pregnant women on maintenance treatment with lithium alone (n=13) or polytherapy (n=5) during late pregnancy, which were treated at the Perinatal Psychiatry Program CLÍNIC between 2007 and 2011. We evaluated sociodemographic data, lithium plasma concentrations in maternal blood and umbilical cord and fetal biometry.
Results: Women did not fulfill diabetes or obesity criteria prepregnancy and during pregnancy. Mean maternal age (SD) 32.71 (4.02), 66 % primiparaes, 95 % Caucasian and 100 % married or with partner. Third trimester ultrasonography has shown that fetuses exposed to lithium had a mean (SD) waist circumference of 291.84 mm (18.1), which was lower than those exposed to polytherapy [317.8 mm (27.93)]. Statistical significant differences were not found (p=0.055). Attending to other biometric parameters, fetuses exposed to lithium had a mean femur length of 62.69 mm (3,82) compared to polytherapy that had a femur length of 69 mm (5.15), which was statistical significant (p=0.018). Estimated fetal weight by percentile, adjusted for sex and gestational age, was higher in the polytheraphy group compared to lithium monotherapy [61.62 (32.16) vs 78.00 (27,94)], but it did not have clinical significance. There not were differences in umbilical cord/maternal plasma lithium levels in both groups (0.95 vs 0.98).
Conclusions: The fetuses that were exposed to lithium had a lower waist circumference and femur length compared to polytherapy group. However, the estimated fetal weight does not reflect significant differences between treatment groups.

Case of a 24-Year-Old Woman with Pervasive Denial of Pregnancy

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Aims: Denial of pregnancy is not uncommon, and it presents complex issues in terms of differential diagnoses and clinical management. It has been reported that nearly 1 in 500 women deny pregnancy at 20 weeks of gestation or later (Wessel, Buscher: Denial of pregnancy: population based study. BMJ 2002; 324:458). The differential diagnoses include psychosis, concealment, traumatic dissociation, or pervasive denial, and they exist on a continuum. The possibility of prior sexual assault must be included in the evaluation. In addition, pregnancy denial is associated with a risk for neonaticide (Spinelli M: A systematic investigation of 16 cases of neonaticide. Am J Psychiatry 2001; 158:811–813). Our study describes the case of a 24-year-old woman who presented to Columbia University Medical Center with pervasive denial of pregnancy, and aims to illustrate important features of these pregnancies.
Methods: A literature review was conducted on pregnancy denial, sexual assault, and neonaticide; and the case of a 24-year-old patient with pregnancy denial was reviewed.
Results: The patient arrived at Columbia University Medical Center in active labor with her third child. She reported being unaware of her pregnancy until moments before delivery. She denied experiencing any of the physical symptoms associated with pregnancy, and she denied any circumstances that could have led to conception in the prior 11 months, since the birth of her second child. The team kept the patient on continuous observation, obtained collateral information from the patient's family, alerted child protective services, and established both outpatient mental health and mobile crisis services for the patient. She was interviewed by a senior psychiatrist with expertise in denial of pregnancy and neonaticide to better assess her risk. At the end of her hospital stay, patient admitted that she was raped by a friend's brother which was the likely cause of conception.
Conclusion: Elucidating the underlying cause for pregnancy denial has important implications for psychiatric care and patient's safety for childcare. Furthermore, the associated risk between pregnancy denial and neonaticide adds a layer of medicolegal considerations. Clinicians who work with obstetric populations should be aware of this issue and cognizant of its challenges in management.

Paternal Psychological Response Shortly After Ultrasonographic Detection of Structural Fetal Anomaly

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Aims: Shortly after detection of a fetal anomaly (FA), maternal psychological distress is influenced by gestational age (GA), severity of the FA, and prognostic ambiguity concerning diagnosis or prognosis. The aim of this study is to describe paternal psychological response shortly after detection of FA and to compare paternal vs. maternal response within the same couple as well as with a group without fetal anomaly (no FA) (n=100).
Methods: A prospective, observational study was performed at a tertiary referral center for fetal medicine. Pregnant women (n=155) in second and third trimester and their partner were included within a week following sonographic detection of a FA. Psychological distress was assessed using the Impact of Event Scale (IES-22), Edinburgh Postnatal Depression Scale (EPDS) and the anxiety and depression subscales of the General Health Questionnaire (GHQ-28). Social dysfunction and health perception were measured by the corresponding subscales of the GHQ-28. FA was classified according to severity and diagnostic or prognostic ambiguity at the time of assessment.
Results: Median GA was 21.5 weeks, range 12–38. There were significant correlations (p<0.001) between maternal and paternal psychological response on all measurements. Males in the FA group had significantly lower scores than females on all psychometric endpoints (p<0.001) performing related-samples Wilcoxon Signed Ranks Test.

EPDS scores in the FA group were (mean (SD)) 7.5 (5.2) and 12.5 (5.9) for men and women, respectively, ($p<0.001$). In the no FA group the corresponding values were 1.4 (1.9) and 3.0 (2.9), $p>0.001$. There was a significant difference in EPDS scores between the men in the FA group and the no FA group, $p>0.001$. In a two-way ANOVA, GA did not influence the paternal level of psychological distress in any of the psychometric scales. The severity of FA influenced the level of IES intrusion, IES arousal, and EPDS depression ($p<0.004$). The least severe anomalies with no diagnostic or prognostic ambiguity induced the lowest levels of IES intrusive distress.

Conclusion: Males had lower scores on all psychometric scales than females. Severity of anomaly significantly influenced the paternal response, whereas GA at assessment did not.

Perinatal Psychiatric Service Provision in Switzerland—the Government's Perspective

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Perinatal psychiatric service provision
in Switzerland—the Government's Perspective

Introduction: Psychiatric service provision in pregnancy and the postpartum need to take into account both the mother and the child as well as their whole family. The well- established increased risk of new onsets of some disorders (e.g. bipolar disorders postnatally) calls for early intervention, especially as the peripartum has been shown to be a time period of increased readiness of women to accept professional help. All of these aspects may have contributed to perinatal psychiatry being established as a subspecialty of psychiatry in some countries.

In Switzerland the governments' concept for perinatal psychiatric service provision is not published. Therefore this survey has been carried out.

Methods: The governments of all cantons were asked to fill in a questionnaire and to report their concept for perinatal psychiatry in general, possibly about their specialized perinatal psychiatric inpatients services and—if possible—their data on service use. This survey was carried out in 2000—within the framework of an EU study—and repeated in 2007.

Results: In 2000 and in 2007 all 26 cantons responded and filled in the questionnaire. In 2000 none of the cantons reported a concept for perinatal psychiatric service provision whereas in 2007 the canton of Graubuenden reported to have implemented a concept for perinatal psychiatry. All the other cantons report that all practices and outpatient services of both child and adult psychiatry carry out perinatal psychiatric outpatient treatment. Whenever inpatient treatment is needed perinatally individual arrangements are organized and joint mother-baby admissions on unspecialized psychiatric wards are carried out whenever possible.

Three cantons provide specialised mother-baby-units (Zurich, Freiburg/Fribourg, Thurgau). They are specialised for postnatal patients only and do not provide emergency admissions.

None of the governments report to have collected data on the use of their psychiatric services by women in pregnancy and postnatally.

Conclusion: Taking into account the population size of Switzerland the number of specialized beds in perinatal psychiatry is comparable to e.g. greater London. Further research is neeeded in Switzerland in order to identify possible barriers to care from the patients' and the providers' perspective.

Mother-infant interaction in MBU patients: Before and after treatment.

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Aim: To compare the mother-infant interaction of in-patients on an MBU on admission and discharge with that of a community well group and mothers with depression and personality disorder in the community.

Method: Mother-infant interaction was assessed in 49 MBU inpatients at admission and discharge using the Care Index (Crittenden, 2004). During MBU admission, mothers took part in video feedback sessions. Their interactions were compared to the interactions of 22 mothers in the community with no mental health diagnoses and 67 community women with a diagnosis of depression and personality disorder.

Results: On admission, MBU mothers were more unresponsive to their babies than community well mothers and did not differ significantly from community unwell mothers. On discharge, MBU mothers were less unresponsive to their babies than community unwell mothers and did not differ significantly from community well mothers.

On admission, MBU babies were less co-operative than the babies of community well mothers and did not differ significantly from babies of community unwell mothers on passivity scores. On discharge, MBU babies were more co-operative and less passive than the babies of community unwell mothers and there were no significant differences between MBU babies and those of community well mothers on co-operative scores.

Conclusion: Admission to an MBU and undergoing video feedback intervention is effective in improving mother-infant interaction among mothers with severe mental illness. This supports the importance of early intervention for mothers with mental health problems and their babies.

Exploring the Impact of Maternal Stress Exposure on Fetal Adrenal Volumes

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Objective: To investigate the impact of maternal stress and early life trauma on fetal HPA axis health.

Methods: Pilot data from the first phase of an ongoing longitudinal cohort study are presented here. 51 pregnant women, 19–22 weeks gestation, were recruited from the Hospital of the University of Pennsylvania. All subjects were ≥18 years of age, medically healthy with no

active psychiatric diagnoses or history of pre-term birth. Enrolled subjects completed a brief health and demographic questionnaire and the 10-item Perceived Stress Scale (PSS) (1). In 28 of these women the Adverse Childhood Experience Questionnaire (ACE) (2) was administered. Subjects received a 3D ultrasound of the fetal adrenal gland. Two volumes were obtained per subject and an average of the two volumes was determined. A corrected fetal adrenal gland volume calculated using estimated fetal weight (3,4) was used as the outcome of interest. Histograms and normal probability plots were used to assess distributional assumptions. Multivariable linear regression was used to estimate associations and adjust for gestational age at the time of adrenal volume measurement.

Results: 51 women completed the study. Mean age of the subjects was 26.5 years (SD 5.6) and mean gestational age was 20.8 weeks (SD 0.94). Mean PSS score was 16.17 (SD 8.4). In the 28 subjects for whom we had ACE scores, 25 % of the sample reported ACEs≥2, 21 %≥1 and 54 % no ACEs. Mean fetal adrenal volume was 0.25 cc (SD 0.11). As expected, PSS and ACE were significantly correlated (rho=0.58, p=0.001). Corrected adrenal volume was negatively associated with the number of ACEs. In a multivariable linear regression model adjusting for gestational age, each additional ACE corresponded to a decrease in adrenal volume of 0.09 cc/kg, p=0.032. In a similar model which also adjusted for gestational age, PSS scores were not significantly associated with adrenal volume, p=0.95.

Conclusions: Maternal early stress exposure may be more important to fetal HPA axis health than perinatal stress levels. These data show that although early life stress predicts high PSS during pregnancy, ELS (ELS) is a stronger predictor of decreased fetal adrenal volume.

Infant Daytime Insomnia in a Mother Baby Unit: A Retrospective Study

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Background: Infant daytime insomnia is frequently encountered in our practice, as child psychiatrists in a mother baby unit. We hypothetize that it is a very significant symptom of heightened vigilance in babies under the age of 1 year, highly correlated with maternal depression and maternal insecure attachment. Yet, infant daytime insomnia is scarcely described, and there is no widely accepted definition for this situation of infant hypervigilance. To better characterize daytime insomnia in babies we conducted a retrospective analysis on patients admitted in our mother baby inpatient unit over the last 18 months.

Methods: Patients' files were retrospectively reviewed by 2 independent psychiatrists and the following data were extracted: BABIES: daytime sleep, nighttime sleep, associated somatic disorders, motor development -MOTHERS: psychiatric history, psychiatric disorders, relationship with the babie's father.

Results: One hundred and ten patients' files from our mother baby inpatient unit were reviewed. 39 % of the babies presented daytime insomnia. Among those babies with very little or no daytime sleep, 76 % showed dystonia, 49 % had a marked gastroesophageal reflux, and 23 % presented a motor retardation. Regarding the mothers of these insomniac babies, 48 % had a diagnosis of post partum depression. Thirty percent of them had a psychiatric history and 45 % of these mothers showed insecure attachment. Thirty percent had impaired relationships with the father of the baby, namely break up or domestic violence.

Conclusion: Infant daytime hyperarousal is indeed frequent in our unit and it is highly correlated with a set of symptoms such as reflux and developmental impairment. These symptoms might be a consequence of sleep deprivation, as well as part of a hypervigilance syndrome in babies. Moreover, our study confirmed the high prevalence of maternal depression and maternal insecure attachment in infant diurnal insomnia. Thus, those results encourage us to further investigate this situation, and to examine, on one hand, in which way infant hyperarousal and mother separation anxiety/depression both influence and impair the mother baby bond, and on the other hand, wether hyperarousal could be an early symptom of insecure attachment.

Experience of the Network of Social and Health Workers Provide People Suffering from Mental Illness or Psychic Disabilities in the Area of Pezenas (France): Présentation De L'expérience Du Réseau De Soutien À La Parentalité De

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Presentation of the network:In the area of Pézenas (France), a network of social and health workers provide people suffering from mental illness or psychic disabilities support and guidance in relation with their desire for pregnancy and parenthood.

Geographical context of the network: Pézenas is located in the District of Hérault (France). It is a semi-rural territory organized around a town of 8,000 inhabitants. It possesses few specialised health care facilities, and some patients find it difficult to travel to larger health centres

Locally, a historical context of working partnership for more than 20 years. An local council of mental health collect several networks

The Creation of the network: The network was created in April 2004 as collaborations were engaged in order to prepare a presentation on joint situation follow-ups at the Béziers' Perinatal Health Congress ("Journées de périnatalité"), which was dedicated that year to the 'confiscated parenthood and accompanied parenthood'.

In 2005, following this congress, combined efforts aiming at giving a specific answer to a local problematic were initiated between the different partners of the network.

Functioning and actors of the network: The professionals of this network are comming from the social, medical-social and sanitary—institutional, hospital, associative, liberal sectors -

Operating procedures: Since 2005, bimonthly meetings are proposed to the professionals interested within the rural hospital.

Clinical case studies are explained by the various partners. The study is supported by professionals of the adult (sector 9) and infantile psychiatry (intersector 3 of child psychiatry).

Funding: It is difficult to find a formal frame adapted for the funding of this network considering its small size and considering its aim halfway between social and health.

Evaluation: The diligent attendance of professionals as well as the high number of participants shows the interest which each person finds

in its practice. We have nevertheless considered necessary to implement an evaluation procedure. This should allow us from relevant criteria on the one hand to communicate better with our institutions and on the other hand to improve our methods by defining together the ethical framework of our interventions.

Journey of a Midwife: Caring for Pregnant Drug and or Alcohol Using Women

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Aim: To share knowledge and experience of a model of midwifery service provision for pregnant drug and or alcohol using women in a busy inner London Maternity Unit.
Method: A specialist midwifery model will be presented to delegates detailing the types of interventions delivered in partnership with a substance misuse service, the challenges and success of the model and some of the lessons learnt through the journey that have contributed to improve this service. Some of the challenges for midwives have included the need to engage pregnant women in a busy maternity unit, not always a very sympathetic environment towards drug users and the protection of the unborn child in this context.
Results: Partnership working with agencies including health, substance misuse and social services is a key component in achieving successful outcomes for both mother and baby. However, on rare occasions midwives are supporting women whose parental responsibility may be taken away due to extent of their drug and/or alcohol use.
Conclusions: Midwives have a key role in caring for and supporting drug and/or alcohol using women who aspire to having a family. There are inherent challenges for midwifery services, namely awareness of personal prejudice, stigmatisation of the woman and her aspirations to be a mother and pressure on midwifery resources to provide high input care and support. There are also challenges related to lack of research and knowledge of the effects of drugs and alcohol in breast feeding and how this gap may lead to influencing negative outcomes for both mother and baby.

The new UNC Perinatal Psychiatry Inpatient Unit (USA): Report on the First Year

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Aims: The University of North Carolina at Chapel Hill Center for Women's Mood Disorders is a clinical and research program specializing in reproductive psychiatric illness. The growth of the program strongly supported the creation of a free-standing Perinatal Psychiatry Inpatient Unit to treat the most severely ill patients. The goals of this new unit are to provide assessment and state-of-the-art treatment for women and their infants with severe mood disorders occurring during pregnancy or postpartum.
Methods: The multidisciplinary team provides medication management alongside specialized therapeutic interventions. Therapies include: biofeedback, yoga, art therapy, behavioral therapy, Partner-Assisted Therapy (PAT), mother-infant attachment therapy, mindfulness-based group therapy and psychoeducation for patients, partners or other family members. The program encourages extended visiting hours for partners and babies to maximize positive interaction and critical opportunities for mother-infant bonding. Provisions include: skilled nursing staff, protected sleep times, gliders, in-room nursing pumps and supplies, and a dedicated group dayroom.
In order to assess the effectiveness of the programming, we created pre- and post-treatment assessment batteries. The patients complete pre-treatment assessments within 24 h of admission and post-treatment assessments are completed on day of discharge. Domains measured include mood, anxiety, trauma/abuse history, mania, social support, attachment, lactation, medication efficacy and adverse effects of treatment. Measures include: Edinburgh Postnatal Depression Scale Patient and Partner Versions (EPDS; EPDS-P), Adverse Childhood Experience Questionnaire (ACE), Altman Self-Rating Mania Scale (ASRM), Frequency, Intensity, and Burden of Side Effects Ratings (FIBSER), Generalized Anxiety Disorder (GAD-7), Patient Health Questionnaire (PHQ-9), Work and Social Adjustment Scale (WSAS), Checklist of Parental Thoughts and Behaviors, Maternal Antenatal Attachment Scale, Infant Behavior Questionnaire (IBQ), and Lactation Intensity and Efficacy (LEI).
Results: Data from the first year of operation of the unit (August 2011-August 2012) will be presented.
Conclusion: The UNC Perinatal Psychiatry Inpatient Unit provides intensive psychiatric care in a setting that encourages extensive interaction between mother and baby to promote attachment. Specialized and targeted interventions appropriate for the perinatal period have been developed. Program evaluation is being carried out by pre- and post-treatment assessment instruments to monitor patient treatment response and service satisfaction.

Place of the Perinatal Care in Prevention of Infanticide in the Post-Partum Period

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Objectives: Maternal infanticide is a rare but dramatic event. Puerperal psychiatric disorders have always had a major impact on the arisen of infanticide. Through a clinical case, we will try to highlight how important it is to inform the parturients and their family about a possible outcome of psychiatric disorders during the post-partum period. We will also mention the existence of Mother-Baby Units (MBUs) and their role in the prevention of infanticide during this special period of life.
Methods: We report the case of a mother native from Morocco, aged 31, who committed an altruistic acting out on her four-year-old daughter, as she was presenting a post-partum psychosis. This drastic event occurred after a first missed but unattended infanticide on her youngest child.

Results: Given the psychotic and melancholic symptoms presented by the patient, the infanticide could have been avoided by an hospitalization in a MBU shortly after the first attempt.
The role of MBUs is indeed to provide the patient with a treatment adapted to maternal pathology and to help developing the early mother–baby bond. Mother and child interactions are also examined in order to evaluate the maternal abilities and the support the mother will be needing back home. After having left the MBU, the patient and her child may benefit from a joint psychiatric follow-up by a psychiatrist and a pedopsychiatrist, as well as from the intervention of social protection.
Conclusion: MBUs main aim is to inform, guide and care mothers and their family. MBUs are part of a wide and well-organized network which includes obstetricians, midwives, general practitioners, social protection workers, in coordination with psychiatric and pedopsychiatric departments.
This approach allows better prevention and care of post-partum psychiatric disorders and minimizes the risk of infanticide, as we reported in this paper.

Pregnancy and Substance Misuse: Monitoring Outcomes

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Most women who attend services because of problematic use of drugs and/or alcohol are in their reproductive years. Managing pregnant drug/alcohol users requires the concerted efforts of multiple agencies, such as substance misuse, antenatal and social services. A Maternal Health Team within a Substance Misuse Service in Central London was developed to facilitate access and retention of pregnant drug/alcohol using women and to prevent and reduce harm and complications associated with their substance misuse.
Aims: To monitor outcomes of pregnancy for mother and baby of drug using mothers attending this service
Method: All pregnant women using drugs and/or alcohol already attending or being referred, within a 3-year period were included. An outcome monitoring tool was developed, to evaluate Woman, Baby and Social outcomes.
Women were encouraged to stabilise, reduce or discontinue drug/alcohol use during pregnancy, attend antenatal care and to develop close links with social services.
Results: Of a total of 61 pregnant drug-using women followed up, 58 babies were born. Three women miscarried and 9 had complications. The mean birth weight was 2900 g, 17/58 (29 %) babies experienced withdrawal symptoms and 27/58 (47 %) were being breastfed at 10 days.
Comments/Conclusions: The proportion of pregnancy complications found was higher than the general population, in keeping with available evidence.
The main difficulties encountered by the Team in delivering their interventions were: a) differences of practice within the substance misuse service, b) different and conflicting objectives between the different agencies: Social Services aim at protecting the unborn child, antenatal services and substance misuse services at protecting mother and baby, c) difficulties of the clients themselves, such as multiple and chaotic drug use, poverty, homelessness and a profound sense of disempowerment.

Mother Matters: An Online Intervention for Postpartum Women

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Social isolation and inadequate social supports are a well-established risk factor in the development of postpartum emotional difficulties (Robertson et al., 2004). A woman's social network can play an important role in smoothing the transition to new motherhood. Research demonstrates that a woman's connections with her peers in particular can help in the prevention of postpartum mood disorders (Dennis, 2010). In recent years, the internet has been used as a mode to deliver psychological and emotional support for individuals struggling with a range of issues (see Cuipers, van Straten, Andersson, 2008 for review). There is strong support for the value of internet-based interventions, which have been evaluated across several studies to demonstrate benefits comparable to traditional face-to-face therapy (Barak et al., 2008). To the best of our knowledge, there have been few attempts to develop facilitated support groups to prevent emotional difficulties and improve social support in the postnatal period. Online groups provide flexible access for individuals who may be living remotely, have difficulty traveling, and who may be otherwise occupied during daytime hours, making this innovative mode of accessing support especially relevant for women in the postnatal period.
Mother Matters is a 12-week moderated online support group designed to prevent emotional difficulties and provide social support for new mothers who have babies between 0 and 12 months of age. Mental health clinicians introduce a new topic weekly and facilitate the discussion. The weekly themes were derived from clinical experience, and cover a range of topics encountered by women in the first year postpartum, including emotional changes, transitions in close relationships, sleep and feeding challenges, mobilizing social supports and building coping skills. Thus far, Mother Matters has been run with two non-clinical groups. The development, structure and evaluation of this online group, benefits and challenges of online interventions with postpartum women as well as future plans for this program will be discussed. This program may be helpful in allowing women with young children to overcome barriers to traditional counseling, and prove to play a crucial role in the prevention of emotional difficulties in the transition to motherhood.

Antenatal Stress and Risk Factors for Age-Related Disease

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Aim: Exposure to childhood adversity, such as childhood maltreatment, is associated with adulthood age-related disease. Less is known about the impact of exposure to stress in utero on later life disease risk. We tested the hypothesis that exposure to antenatal depression is associated with childhood medical problems, and adulthood risk factors for cardiovascular disease.

Method: The sample included 178 families from the South London Child Development Study. A prospective longitudinal design was employed. Mothers provided data on their current mental state at 36 weeks of pregnancy through clinical interview. Maternal reports of offspring childhood medical needs were provided through clinical interview at 11 years. A subsample (n=38) of offspring underwent a physical examination at 25 years, from which biological markers of age-related disease were assessed.
Results: Offspring exposed to depression in utero had significantly greater medical needs in childhood (OR 2.50), elevated levels of adulthood high sensitivity C-reactive protein (hsCRP) (mean difference=2.41) and lower levels of adulthood high-density lipoprotein cholesterol (HDL-C) (mean difference=.38) compared to offspring not so exposed. This effect was independent of other maternal characteristics such as levels of smoking and drinking during pregnancy, gestational age, exposure to further depression from birth to 11 and exposure to childhood maltreatment.
Conclusion: Exposure to antenatal depression appears to be an independent predictor of increased cardiovascular disease risk. Provision of support to women depressed during pregnancy could provide a mechanism to reduce the burden of age-related disease in later life.

On the Influence of Postpartum Anxiety Disorders on Mother-Child Interaction and Child Development

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Anxiety disorders are, alongside depression, the most common mental disorders in the postpartum period. Disturbances in mother-child interaction as well as deficits in the emotional and cognitive development of children have been repeatedly demonstrated in connection with postpartum depression. The quality of mother-child interaction plays an important role as a moderator variable between maternal psychopathology and the child's level of cognitive development. With regard to anxiety disorders, however, there has been little investigation into the influence of anxiety disorders in the postpartum period on mother-child interaction and child development. The present study examined mother-child interactional reaction patterns during the infant's first 8 months of life in connection with the mother's anxiety disorder. We also directed our attention to the relationship between the anxiety disorder, the quality of the mother-child relationship and the cognitive development of the child at the age of 12 months.
In the study, mother-child dyads with anxiety disorders were compared with a healthy control group. The analysis of specific mother-child interaction patterns took place at 3 and 8 months, and the examination of the child's level of cognitive development was carried out at 12 months. Attributes of the mother-child relationship were determined using both self and third-party evaluation methods.
The initial findings indicate that mothers with anxiety disorders evaluate their bond with their child and their ability to support their child in its self-regulatory competence more negatively than mothers in the healthy control group. With regard to cognitive development, there was an association between specific patterns of the mother-infant interaction and the cognitive development at 12 months, but there were no differences between the children of mothers with anxiety disorders and the children of psychologically healthy mothers. The long-term aim of this study is to acquire a solid body of knowledge to assist in the planning of disorder-specific mother-child interventions; the ultimate goal is to prevent developmental deficits from arising in children with mothers who suffer from anxiety disorders in the postpartum period.

Neonatal Hypoglycaemia Associated with Maternal Olanzapine Therapy During Pregnancy: A Case Report

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Olanzapine is an atypical antipsychotic known to cause abnormalities of glucose metabolism, metabolic syndrome and diabetes. Evidence on the use of antypical antipsychotics in pregnancy is limited.
Aims: To present a case of prolonged neonatal hypoglycemia secondary to resistant hyperinsulinaemia, following maternal olanzapine therapy during pregnancy for Bipolar Disorder Type 1. We also aim to explore possible causes of neonatal hypoglycaemia.
Methods: Consent was obtained form the patient. Psychiatric and medical notes from the case were used as well as literature searches to indentify possible links between atypical antipyschotics and neonatal hypoglycemia. Physicians involved in the case also provided professional insight.
Results: The mother had bipolar disorder type 1 and was prescribed olanzapine for a severe psychotic episode during pregnancy. The infant required prolonged treatment on neonatal intensive care and medical management for the first 6 months of life. After exploring other causes of neonatal hypoglycemia, in-utero olanzapine exposure seems a likely cause in this case. This is the first case in the literature, to our knowledge, of olanzapine induced resistant hyperinsulinism.
Conclusions: Olanzapine therapy during pregnancy may be associated with neonatal abnormalities of glucose metabolism. We conclude that women taking olanzapine during pregnancy should be closely monitored for abnormalities of glucose metabolism.

Mental Health Literacy in Pregnancy and the Postpartum

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Good mental health literacy has been shown to predict intentions to seek help and poor mental health literacy reduces care seeking.
Aims: We aim to assess the mental health literacy of a group of mothers during the perinatal period and up to 2 years postpartum.
Methods: A Bounty Word of Mum TM omnibus online survey was carried out in July 2011. Bounty is a free, national online parenting club that provides support and information to mothers and invites members to participate in surveys via email. Inclusion criteria were a confirmed pregnancy of any gestation or a youngest child up to the age of 24 months. 8 questions were adapted from the Mental Health Knowledge Schedule designed to assess stigma-related mental health knowledge.
Results: 2,138 mothers completed the survey. 40 % either did not know or agreed that psychotropic medication should never be used in pregnancy.

23 % did not know about the possible childhood sequealae of mental illness during pregnancy. 21 % did not know or disagreed that people with severe mental health problems could recover and 26 % did not know how to advise friends with mental health problems to get professional help.
Conclusions: Our survey identifies gaps in mothers' knowledge of mental health problems, particularly regarding how mental health can influence obstetric outcome and available treatment options both during and outside pregnancy. This identifies possible targets for future initiatives to improve mental health literacy amongst pregnant women.
Acknowledgements: Our thanks go to Bounty, who are working in partnership with Tommy's, The Baby Charity.

Smoking, Mental Health and Pregnancy: A Review

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Smoking during pregnancy is associated with adverse foetal and maternal outcome. Poor mental health is a significant risk factor for continuing to smoke in pregnancy. Smoking during pregnancy therefore partly explains the association between mental illness and poor obstetric outcome.
Aims: To explore what interventions are effective in helping women with psychiatric disorders quit smoking in pregnancy and attitudes of health professionals towards smoking cessation in those with mental disorders.
Methods: We conducted a literature search of PubMed using MeSH terms including 'smoking cessation', 'pregnancy' and 'mental disorders' to look for relevant studies. We used the results of this search, together with our knowledge of the literature, to form the basis of this review.
Results: Smoking cessation interventions are effective in pregnant women, and women with mental illness. Additionally, smoking cessation interventions do improve obstetric outcome among pregnant women. However, we found no randomized controlled trials specifically aimed at smoking cessation in pregnant women with mental illness. Interventions addressing psychosocial and behavioural risk factors together were found to reduce smoking but specific cessation rates amongst pregnant women with mental illness receiving such interventions are not known. There is also evidence that mental health and maternity professionals underestimate the desire amongst pregnant women with mental disorders to quit smoking.
Conclusions: Studies into smoking cessation in those with poor mental health in pregnancy are scarce; more interventions specifically tailored to women with mental illness in pregnancy are needed. These should address co-morbid risk factors including socio-economic circumstances, partner smoking status, social support, partner violence, nutritional intake and alcohol use. Finally, training is needed to address the attitudes of mental health and maternity professionals towards smoking cessation in pregnant women with mental illness.

Internet-Based Stress Management for Anxious Women with Preterm Labor—A Promising Approach? First Results of a Randomized Controlled Intervention Study

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Aims: Preterm labor (PTL) can act as a stress-enhancing factor during pregnancy and affected women often develop concerns and anxieties regarding the course and outcome of pregnancy and the child's health. In addition, the pathogenesis of PTL itself is, beside other causes, related to stress-associated activation of the maternal-fetal hypothalamic pituitary adrenal axis (HPA axis), followed by the release of various stress hormones and inflammatory markers, which can stimulate the pathway for parturition. In spite of these psychobiological associations, the potential of psychological stress reducing interventions has not been systematically assessed. Therefore, the aim of the present study is to evaluate the efficacy of an internet-based cognitive behavioral stress management program (IB-CBSM) in women with PTL for improving gestational and psychological outcome.
Methods: In this randomized controlled intervention study, 206 pregnant women diagnosed with preterm labor will be randomly assigned to either IB-CBSM or a control condition, based on distraction. The online-format is expected to be especially suitable for women with PTL whose mobility is often limited. Primary outcome is preterm birth (PTB), secondary outcomes are biological stress parameters (cortisol and progesterone levels in saliva) and psychological adaption.
Results: In a first step the face validity and usability of the developed stress management program could be confirmed with test users. The present study has started in January 2012; first results will be presented at the conference.
Conclusion: PTL and the risk of PTB are often followed by psychological burden. This project is, to our knowledge, the first study which examines the applicability of an online-intervention in pregnant women and emphasizes the necessity to provide adequate psychological support for this subgroup of women.

The Role of Oxytocin in the Pathophysiology of Postpartum Depression

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Aims: Lower plasma oxytocin levels at 30–34 weeks of gestation have been shown to be prospectively associated with increased depressive symptoms 2 weeks following delivery. However, the role of oxytocin in the pathophysiology of PPD remains poorly understood. The aims of this pilot study are twofold: 1) examine whether the pattern of perinatal changes in oxytocin levels predict postpartum depressive symptoms, and 2) explore prospective associations between oxytocin, estradiol, and mood in models predicting the onset of PPD.
Methods: Women with (n=9) and without (n=12) a history of PPD completed the Positive and Negative Affect Scale (PANAS) and collected saliva samples each morning beginning in the third trimester and continuing until 10 days postpartum. At one-month postpartum, SCID interviews were conducted to assess DSM-IV criteria for PPD onset. Salivary estradiol was assessed using EIA, and oxytocin assays are underway. Individual correlations between daily estradiol levels and

negative affect were combined across participants using meta-analytic techniques. Multi-level modeling will be used to further explore whether the pattern of perinatal changes in oxytocin and estradiol levels predict depressive symptom severity. Regression analyses will explore the use of estradiol and oxytocin function to predict the onset of PPD.
Results: Although women without a history of PPD demonstrated increased negative affect between postpartum days 1 and 3, they did not show a significant association between estradiol levels and negative mood ($n=12$, $r=-0.05$, $p=.24$), and none developed PPD. In contrast, daily estradiol levels were associated with daily negative affect ratings within participants ($n=4$, $r=-0.34$, $p<.001$) who went on to develop PPD at one-month follow-up. Oxytocin assays are underway and expected to complement the estradiol findings.
Conclusion: Results of this study may improve our understanding of the hormonal mechanisms of PPD and further the development of translational therapeutics for reproductive-related mood disorders, such as intranasal oxytocin. Strengths of this study include: 1) multiple antenatal and postnatal assessments of saliva and mood on the days surrounding delivery, 2) the examination of changes in hormones over time and their interaction, and 3) the use of daily affect ratings and diagnostic interviews to comprehensively assess PPD symptoms.

Symptoms of the Anxiety Disorders in a Perinatal Psychiatric Sample

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Aims: Anxiety disorders are common during the perinatal period (Heron et al., 2004). Further, despite that the perinatal phase is characterized by increased interfacing with the medical system, rates of detection of psychiatric distress remain alarmingly low (Goodman et al., 2010). Encouragingly, there are increasingly efforts made to specifically target this population and provide accessible treatment during this time. One such example is the Women and Infants' Day Hospital (DH) program, a unique mother-baby day treatment facility that provides integrated psychiatric care for pregnant and postpartum women who present with psychiatric disorders during the perinatal period (Howard et al., 2006). The current study aimed to evaluate the profile of diagnoses assigned to women who were admitted to this program.
Methods: Given the prevalence of anxiety disorders in a perinatal psychiatric population has not been fully characterized, this study focused on both self-reported symptoms of anxiety and the assignment of anxiety disorder diagnoses by clinicians. We retrospectively reviewed medical charts of 334 perinatal women enrolled in the DH.
Results: Initial analyses revealed a high level of anxiety symptoms within both pregnant and postpartum women in the sample based upon responses on a self-report screening questionnaire. Over half of women reported some symptoms of Social Phobia (57 %), Generalized Anxiety Disorder (76.6 %), or Panic Disorder (71.3 %). While many of these women may have not experienced sufficiently high symptoms and impairment to warrant a full psychiatric diagnosis, it was notable that these diagnoses are rarely assigned following an intake assessment (patients were assigned these diagnoses 0.6 %, 1.5 %, and 4.5 % of the time, respectively). Self-reported symptoms of obsessions (36.7 %) and compulsions (30 %) were also notable, though a diagnosis of OCD was also assigned relatively rarely (3.8 % of patients). In contrast, Post Traumatic Stress Disorder was diagnosed more frequently: whereas 38.7 % of women self-reported struggling with distress related to a traumatic experience, 9.9 % were assigned a diagnosis of PTSD.
Conclusion: Anxiety disorders are common among perinatal women seeking psychiatric treatment. We will discuss the value of assessing anxiety within the context of treatment and discharge-planning, considering impact of undetected anxiety on the prognosis of mood disorders.

Denials and Negations of Pregnancy

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Denials and negations of pregnancy are still mis-interpreted phenomena. They have been reported since ages, yet few explainations have been found to better understand them.
Here we compare, through projective methodology (Rorschach and TAT), a group of women who went through a pregnancy denial to a group of standard primipare mothers in the post-natal period. Psychic mecanisms, body representation, sexual representation and loss treatment have been studied.
Apart from the great diversity of psychical organisation, some women revealed more psychopathological disorders than standard primipare mother. Moreover, fragile body representations as well as low capacity of expresion of libidinal pulsions and difficulties in loss treatment appear more frequently in the first group. Similarities in the psychological patterns of women who denied their pregnancy have also been found.
More studies are still needed to evaluate if these results are only due to pregnancy denial or if the post-natal state has a specific influence on the psychology of these young mothers.

Glucose Metabolism and Mothers with Major Depressive Disorder, Bipolar Disorder and Controls: Pregnancy Outcomes

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Background: Gestational diabetes (GDM) affects 7 % of pregnant mothers. GDM and obesity contribute to adverse outcomes—pregnancy loss, pre-eclampsia, surgical delivery, eventual DM and newborn complications. We explored the relationship of GDM and mood disorders with adverse outcomes.
Methods: We examined Healthy Controls (HC), mothers with Major Depressive Disorder (MDD) and Bipolar Disorder (BD) during pregnancy and at delivery; we used to SCID interview to confirm diagnosis. At 28 weeks gestation, mothers received the 1-hr 50 g oral glucose challenge test (GCT). Outcome variables were preterm birth, birth weight (BW) and peripartum events (PES).
Results: We enrolled 48 HC, 15 BD, 42 past MDD and 32 current MDD mothers. Mothers with BD had significantly reduced rates of completing college and being married and increased substance use.

Pre-pregnancy BMI, mean GCT (X^2=1.55 df=3,136 p=0.17) and the rate of impaired glucose metabolism (GCT>140 mg/dL; H=1.1 df=3 p=0.4) did not differ significantly across groups. Glucose metabolism was not associated with any (PES>/=1) or increased (PES>1) perinatal events (both OR=1.0 95 % CI=0.9–1.0), preterm birth (OR=1.0 95%CI=0.96–1.0) or BW (beta=2.7814 p=0.20). Infants of mothers who received antidepressant or antimanic drugs had increased odds for any (OR=2.9, p=0.04) and increased perinatal events (OR=5.0 95%CI=0.5–57, p=0.05) and preterm births. Substance use also increases the odds for any or increased perinatal events. Maternal diagnosis and adverse outcomes. Across diagnostic groups, 20–38 % of infants had at least 1 perinatal event. Only 2–10 % of infants had increased perinatal events. Rates of any or increased perinatal events were not significantly different across groups. Mothers with BD, past or current MDD compared to HC have increased odds for increased perinatal events (OR=1.5–2.4). Mean BW differed with maternal diagnosis (P<0.001, p<0.03); BD mothers delivered newborns with the lowest mean weight (3071 g). Mothers with current MDD had preterm births more frequently (16 %) compared to HC, BD and past MDD mothers (8 %, 13 %, 14 %); rates did not differ significantly across groups (P<0.001, p=0.71).

Conclusion: Genetic-environmental factors e.g. health behaviours, medication effects, abnormal stress response or familial risk may contribute to adverse obstetrical outcomes in mothers with mood disorders.

Treating the Network in Order to Better Take Care of Patients in a Perinatal Environment: Example of the Partnership Between "Mother Infant Psychiatry Service and the Mother and Baby Home"

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The pathologies encountered in a mother and baby home are characterised by life's mishaps, the ending of relationships, loyalty differences.

The possibility of weaving a « personal security net » has often been jeopardised by life events:in France, medico-social carers are numerous for these types of situation (PMI, infant welfare, foster homes, child psychiatry, mother addiction networks, general psychiatry) …not to mention the partners whom those young parents had previously met.

It is important to state that this involves "working in a network" and not of a formalised care network. This network is recreated around each situation and brings together all the professionals who converge with the family projects, and/or are a resource for its members. None of us, whether as an individual or as a service/institution, represents the "whole" for a situation. Thus, the network does not think of itself as a formalised service, rather, its members should bear in mind and respect the differing paths of the participants and the many types of professionals involved.

These multiple interventions may sometimes cause discord, even competition and conflicts between the various institutions involved, or the persons concerned.

This inevitable echoing of the patients' own problems may lead to the break-up of the interinstitutional netting, a break-up which reinforces the phenomenons of repetitions and ruptures.

This is why "treating the network" is as important in the care given as the direct work with the patients.

Indeed experience shows that « thinking together » while respecting each professional identity and each institutional logic often avoids rejections, ruptures of contact or acting out.

Conclusion: This communication will describe the various mechanisms which contribute to our intervention, their role and the difficulties as well as the benefits encountered.

Clinical examples will illustrate this approach.

Integrated Care for Woman (Pregnant and Post Partum) with a Psychiatric Disorder and Their Infants

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Novelty of the subject

Most of the time a lot of questions are raised when women with psychiatric problems wish to become mother and/or are pregnant, for example can I use my medication during pregnancy, what about the effect of pregnancy on the psychiatric problem and viceversa, what will be the effect on the baby.

The integrated mental health care plan offers a variety of mental health services for women who want to have a child, are pregnant, and/or in the postpartum within a centre for mental health care in the Netherlands. The cooperation between different units is a novelty and leads to a form of collaborative care in perinatal care from preconception to the postpartumperiod including parent/child intervention. One of the things is making a preventionplan in which the care during the different periods is described and in which is described what to do "in case of".

All parents are offered the parentbaby intervention (a preventive strategy) focussed at improving the parent-infant interaction and enhancing a secure attachment relation

The following is provided: preconception advise, outpatient treatment during pregnancy and the postpartum period, inpatient dayprogram treatment, inpatient mother-child unit, infant mental health, parentbaby intervention.

The interest for the participants

Discussing the organisation of a care line from preconception to postpartum period for women with psychiatric problems. We offer such a care line and would discuss different probabilities.

Expertise for leading the discussion

A.W.M.M. Stevens and B. Geerling have a lot of experience in working with women's mental health in the pregnant and perinatal period. K. van Doesum is preventionpsychologist and did her PhD on the effectstudy of the parentbaby intervention.

Severe Mental Illness, Borderline Personality Disorder (BPD) and Infants

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Background: Helen Mayo House is a 6 bed mother-baby unit in Adelaide Australia which admits severely mentally ill mothers with their infants up to age of 3 years. Assessments and management use a

biopsychosocial framework for mother's illness and personality function, infant physical health and development, mother-infant relationship and partner relationship.
Method: In this study, self-report scales assess depression, anxiety and borderline personality functioning at admission and discharge. Formal diagnoses are also made by trained psychiatric staff, and additional Likert scales reviewed weekly by all staff which delineate maternal avoidance, intrusiveness and reflective functioning.
Results show that nearly 50 % of women identify themselves at admission as showing features of BPD, with some significant diminution of symptoms during admission. Women with this diagnosis have much greater length of stays (30 days compared to 21 days for the whole population), are generally less reflective and less able to manage their infants, and anecdotally increase ward and staff tensions. Overall, for all admitted women, there is significant reduction in self-reports of depression and anxiety, and the majority of women improve their view of themselves as mothers.
Conclusions include recognizing the need for better clarity at admission regarding this personality style, better protocols for management of BPD in this inpatient setting, further staff training using a dialectical behaviour therapy model and enhanced psychoeducation for the woman and her family.

Best Beginnings Program

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The Best Beginnings Program is a joint initiative between the Department of Child Protection and the Department of Health in Western Australia (WA). Commencing in Perth in 2000, Best Beginnings has expanded State-wide to include eight metropolitan and five country sites. The program is a voluntary structured home visiting service delivered by professionally trained staff to families over a 2 year period. Referrals to Best Beginnings come from a variety of sources such as hospital social workers, doctors and other allied health workers. The aim of Best Beginnings is to enhance positive outcomes for at risk infants and their parents. Risk factors include teenage parents, parents with a history of psychiatric illness, domestic violence, and substance and alcohol misuse. Priority to access the program is given to first time parents. Best Beginnings services commence antenatally or postnatally (prior to the child turning 3 months) and continue until the child turns two. Families receive a minimum of 22 home visits commencing weekly, reducing to bi-monthly visits in the second year. Best Beginnings is at all times delivered with respect to the cultural and religious beliefs of the family. The theoretical framework of Best Beginnings is firmly embedded upon the principles of attachment theory, objects theory and family systems theory, and is based on the Family Partnership model. This model posits that staff develops a trusting relationship with the parent to empower them to meet their own and their child's needs. Best Beginnings has three program domains: 1) child health and well-being; 2) parent's/carer's well-being and family functioning; 3) social connectedness. Independent evaluations of the program have been made by The Institute for Child Health Research WA. The findings are that the program has made a significant contribution in the area of early intervention and prevention by supporting vulnerable parents to improve life outcomes for their children. The presentation will focus on describing the main principles of the program and outline the service delivery model from a practitioner's point of view.

Conveying Risk

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Aims: A challenge was presented by Dr. Ian Jones at the 2010 Conference in Pittsburg USA to bring ideas, concepts, discussion to Paris regarding ways to communicate perinatal risk. This poster session will display a visual tool that I have found to be effective in this discussion.
Methods: A glass fish bowl half filled with dice of various sizes, shapes and colors sits on a tray and is displayed in a prominent position in the consultation area.
Sample dialog:
Patient: "What are the chances that our baby will inherit mental illness___"?
Clinician: "This bowl of dice represents all the genetic possibilities from you (mother) and your people and all the possibilities from you (Dad) and your people. The more individuals in the families with the illness, the higher the odds are of your child inheriting it. So, it depends on what you draw (Clinician gathers a handful of dice), how they roll, (Clinician rolls the dice) and finally, life events that disturb the tray. (Clinician shakes the tray enough to disturb a least one die) Things that can influence the way dice role in pregnancy include factors such as maternal nutrition, healthy lifestyle ie: avoiding toxins like tobacco and alcohol, and being emotionally well during the baby's development. Examples of life events that may increase the odds of the child's mental illness include things like exposure to domestic violence, child abuse or neglect, or attachment problems due to maternal mental illness, such as postpartum depression."
Results: Patients have reported better understanding of the role of chance, odds, and environmental factors involved in the inheritance of mental illness. Patients are also exposed to relationship of maternal mental illness to the child's emotional development.
Conclusion: This demonstration will promote discussion of an important topic. This discussion may help to refine the dialog presented above. In addition, it may prompt ideas for research for this and other novel approaches into ways to help patients understand the role of family history, chance, and environmental factors involved in "inheritance" of mental illness.

Taking Action to Close the Gaps in Research of Perinatal Mental Health

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Aims: • To report on the findings of a Canadian Institutes of Health Research (CIHR), nationally funded Planning Meeting of multidisciplinary perinatal mental health experts
• To identify gaps in research in perinatal mental health, particularly maternal and infant stress regulation
• To determine research priorities that strengthen best practices in the measurement of perinatal psychiatric comorbidity and maternal and infant stress regulation
Methods: An international group meeting of multidisciplinary scientists and clinicians was convened in Vancouver, Canada. Experts from a range of reproductive health domains: perinatal mental health, epidemiology, maternal/fetal/infant stress regulation, and infant neuro-developmental outcomes and trajectories, were convened. Each presented a critical review of the published literature in their area of expertise. Subsequent facilitated exercises and open brainstorming the group came to a consensus on the gaps in knowledge and areas for future research.
Results: The group found that research is lacking on the importance of reproductive hormones over the lifespan, particularly their interaction with stress, anxiety, and depression in childbearing women. Premenstrual dysphoric disorder (PMDD) was further identified as a useful model to help clarify complex pathways and mechanism underlying potential reproductive hormonal sensitivity and the increased risk for developing depression and anxiety during pregnancy and the postpartum. The group determined that to follow a cohort of women (with PMPP and not) from adolescence into the postpartum year or beyond would capture contributing factors and biological vulnerabilities of some women for perinatal mental health problems and ongoing stress and mood dysregulation in their infants.
Conclusion: A grant will be submitted to determine the biological and psychological associations between reproductive and stress hormones in women of childbearing age that identify factors that can prevent the development of perinatal mental health morbidity. Reproductive-mental health specific diagnostic assessment tools are needed to better identify women who may be at particular risk for developing perinatal anxiety, depression and altered stress regulation. We conclude that there is a need to explore potential biological mechanisms and a biological model of health determinants that heighten risk for prenatal anxiety and depression in some women.

Impact of Perinatal Stress on Mother-Infant Interaction: Relationship Between Intimate Partner Violence and Maternal Bonding Failure

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Background: Rates of Intimate Partner Violence (IPV) are highest among women during their peak childbearing years. Although IPV at any time during a woman's life is devastating, women who experience IPV during the perinatal period are at risk not only for their own health but also for the health of their developing fetus or neonates. Women with IPV during pregnancy have an increased risk of physical abuse in the postpartum period which is frequently associated with postpartum depression, and the onset of the depression usually occurs within early postnatal period. The purpose of the present study was to examine the prevalence of IPV in pregnancy and its impact on postnatal mental health and mother-infant interaction.
Materials and Methods: 156 obstetric clinics participated in a longitudinal survey from 3rd trimester to 1 month postnatally. Socio-economic status, psychosocial risk factor and Domestic Violence Screening Questionnaire (Gundolf. 1997) were administered during pregnancy. Written informed consent was also obtained at that time. GHQ12 (Goldberg, 1978) and Mother Infant Bonding Scale (MIBS; Yoshida, submitted) were filled out by mothers at 1 month postnatal check up.
Result: 4258 women completed the questionnaires. 1.9 % of those women were teenager. 14.2 % were positive according to DV screening (DV+ group) however 36.6 % were screened in teenage mothers. Unwanted pregnancy and lack of support were significantly high in DV+ group. Poor mental health status was indicated by higher score of GHQ in DV+ group. Negative emotion toward baby were significantly high in DV+ group . Especially higher risk of abuse was suggested in teenage mothers.
Conclusion: Importance of the early intervention for the women with IPV especially in teenage mothers were demonstrated. Further investigations on the relationships between maternal psychopathology and bonding problem are planned at the presentation.

Clinical Survey of the Mother-Infant Mental Health Clinic in Kyushu University Hospital: Psychiatric Characteristics of Consecutive 109 Women and their Infants

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Background and the Aim of the Study: The Mother-Infant mental health clinic in Kyusyu University Hospital provides pregnant women with special psychiatric care since 2002. The aim of the study is to analyze clinical features of these women who received care and to propose our treatment strategy.
Methods: 1) Recruitment: Women with mental health disorders currently or in the past or, with psychosocial problems such as lack of emotional support are recommended to visit our clinic. The recruitment was carried out from 2002 to 2009. 2) Instruments and procedures: The prospective data collection and clinical care were carried as follows. At third trimester, Structured Clinical Interview for DSM-IV (SCID) was performed. The obstetric and paediatric data at child birth and one postnatal month were obtained. The Edinburgh Postnatal Depression Scale (EPDS, Cox, 1987) was performed at 5 days, 1 month, 4 months and 7 months postnatally. At 7 months, children's developmental outcomes were examined including the infants whose mothers took psychotropic drugs during their pregnancy.
Results: Patients are categorized as having mood disorders (n=29) anxiety disorders (n=27), schizophrenia (n=10), other psychiatric diagnosis (n=21), no psychiatric disorders with mental health concern and intervention (n=22). The EPDS marked over cut-off point during pregnancy and also after birth, in these mood disorder group and anxiety disorder group. Infants of the mothers with schizophrenia are likely to have lower birth weight. One developmental disorder is observed in both offspring of mood disorder and schizophrenia. All but the infants of the mothers with schizophrenia were developed normally.
Discussion and Conclusions: The impact of mood or anxiety disorders on infant development was not obvious in infant development, however a little concern should be paid for the infants of schizophrenic

mothers due to their lower birth weight and possible risk of suffering from poor parenting from their mothers.

A Mother-Baby Unit in an Adult Psychiatric Unit: Particularities and Distinctiveness

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The Mother-Baby Unit of the University Hospital of Strasbourg was founded 12 years ago and can accommodate until 4 mothers and 4 children. Located in the adult psychiatric unit, this unit is half-managed by the pedopsychiatric department for the babycare.
Because of its proximity to the closed adult department, mothers with strong psychiatric diseases can be hospitalized, and in some cases under constraint. Childs can also be admitted on interim supervision order. How we will show it, hospitalization indications are varied and emphasized all the puerperal pathologies but also situations with interaction troubles between mother and child. On the other hand, psychosocial difficulties will increase the mother psychopathologie.
Our Unit involve mother and babies (406 mothers and 411 children in 12 years), pregnant women (50) and sometimes couples with their baby (4 fathers).
To organize this collaboration between an adult psychiatric department and a pedopsychiatric department, we had to imagine an original system of care, which was complicated because of the distance between the two departments.
This work pays attention to the specificities of the adult psychiatry and the baby psychiatry but has common representations of the relational care. It becomes possible with the intervention of pedopsychiatric professionals (psychologist, pedopsychiatrists and psychomotorists) to help parents and babies, but also the team, during professional meetings, practical analysis about clinical situations and therapeutic problems.
We will present on the first hand the activity in the specific unit and on the other hand the interactions between the two units about the perinatal psychiatry in a permanent collaborating construction.

8-Posters

Maternal Prenatal Anxiety and its Relationship with Early Neonatal Temperament, Quality of Caregiving and Mother-Infant Interactions

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Introduction: An increasing number of studies evidence how anxiety disorders are present, even more so than depression, during the perinatal period (Mauri et al., 2010; Austin et al., 2007; Milgrom et al., 2008; Uguz et al., 2010) and how they can influence foetus and neonatal development (Austin et al., 2005; Rieger, 2004; Field et al., 2003), representations of the maternal role (Hart, McMahon, 2006) and the quality of mother-infant interactions (Murray et al., 2007; Grant et al., 2010).
Aims: The aims of this study were to evaluate, in the early postpartum, the relationship between maternal prenatal anxiety and: neonatal neuro-behavioural development, quality of caregiving, maternal and infant's interactive behaviours.
Methods: At the 3rd trimester of pregnancy 125 women were recruited and asked to complete: Edinburgh Postnatal Depression Scale (Cox et al., 1987), State-Trait Anxiety Scale (Spielberger, 1983), Antenatal Risk Questionnaire (Grant et al., 2008), Social Interaction and Anxiety Scale and Social Phobia Scale (Mattick, Clarke, 1998), Pregnancy Related Anxiety Questionnaire-R (Huiznik et al., 2003). Women were also assessed using the Structured Clinical Interview for DSM-IV (First et al., 1997), to diagnose an anxiety disorder: 35 women reported clinical anxiety (experimental group), while 90 women did not (control group).
At 1 month postpartum, the neonatal development was assessed using Neonatal Behavioral Assessment Scale (NBAS; Brazelton, Nugent, 1995) and the mothers completed the Mother and Baby Scale (Brazelton, Nugent, 1995). At 3 months postpartum, mother-infant interactions were video-recorded in our Lab and coded using Global Rating Scales of Mother-Infant Interactions (Murray et al., 1996). Moreover, mothers and infants went through the Stranger Episode procedure (Murray et al., 2007), to evaluate the neonatal reaction to a stranger.
Results: The neonates of anxious mothers had poorer performances on NBAS regarding general tonus, attention, self-quieting, examiner facilitation, state regulation ($p<0.05$). Anxious mothers perceived themselves as having a greater lack of confidence in caretaking, a lower global confidence, and to consider their baby as more unsettled-irregular ($p<0.05$).
Data on mother-infant interactions are now being analysed and will be presented at the Conference.
Conclusion: Preliminary results underline the importance of assessing and monitoring maternal perinatal anxiety.

The Relationship Between Past History of Premenstrual Syndrome and Depression in the First Trimester of Pregnancy

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Aims: Research shows that mood disorders and Premenstrual Syndrome (PMS) commonly occur together. It has been reported that women who are diagnosed with PMS have lifetime prevalence for Major Depressive Disorder ranging from 57 % to 100 %. In this study, our aim is to identify retrospectively the prevalence of PMS in women in the first trimester of their pregnancy, and evaluate the relationship between PMS and depression.
Methods: A total of 463 women who were in the first trimester of their pregnancy were randomly selected for this study. Patients were screened for depression using the Structured Clinical Interview for

DSM-IV (SCID). Premenstrual Assessment Form (PDF) was used to measure the severity of PMS symptoms. A sociodemographic information sheet was completed for each patient by a psychiatrist. For analysis, the sample was divided into three clusters according to the severity of symptoms and the data was analyzed using K-means cluster analysis.
Results: In this retrospective study, the Premenstrual Assessment Form (PDF) scores of women with depressive disorder were found to be much higher than those without. According to the PDF cluster analysis, 7.4 % (n=34) of the sample had severe symptoms and were considered at-risk group since meeting the criteria for PMS.
Conclusion: Women with PMS pose a significant risk for depression and therefore should be informed about this illness and be closely monitored during pregnancy since the risk for developing depression in this period is higher.

Prevalence of Depressive Disorders in the First Trimester of Pregnancy in Eastern Anatolia (Turkey)

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Aims: Although quite a few studies have been conducted in Turkey regarding postpartum depression, there is still limited data available on depression during pregnancy. The studies indicate that the prevalence of postpartum depression in Turkey is between 14 % and 40 %. This ratio was reported to be between 12 % and 36 % in studies that have looked at the frequency of depressive symptoms during pregnancy. In this study, our aim is to identify the prevalence of depressive disorders in women in the first trimester of their pregnancy, in a province in Eastern Anatolia Region, where rates of depression in women is reported to be higher in comparison to other regions.
Methods: A total of 463 women who were in the first trimester of their pregnancy were randomly selected for this study. The Edinburgh Postnatal Depression Scale was administered to participants for screening. Patients were diagnosed clinically via the Structured Clinical Interview for DSM-IV (SCID).
Results: The prevalence of depressive disorders in the first trimester was found to be 16.8 % in this study. Out of the 463 participants, 57 (12.3 %) of them had major depressive disorder, 7 (1.5 %) of them had double depression, 12 (2.6 %) of them had minor depressive disorder and 2 (0.4 %) of them had dysthymia.
Conclusion: Depression during pregnancy is a common, serious health problem for both women and infants. It appears that evaluating women in terms of depressive disorders in the first trimester of their pregnancy may help in preventing any of the negative consequences that may arise later in the pregancy or in the postpartum period.

A Mother-Baby Unit in Créteil (France): From a Pioneer's Heritage to Modernity

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The objective of this poster is to present the mother-baby unit of Creteil, from its creation to nowadays.
In the first time, we will go back to the history of this unit, through the emergence of perinatal care in France and the first mother-baby units in the world.
This unit, was the first to be created in France in 1979. It belongs to a general and not psychiatric hospital, which is focused on the care of mothers and children.
Secondly, we will show an overview of the current activity methods of working in the unit. We will clarify the composition of the multidisciplinary team and the different types of care which are proposed for our two main ways of working: institutionnal therapy and parent–child psychotherapy interviews.
We will briefly discuss the indications, mode of adress, and conduct of supported, that we will illustrate with a few pictures of the service.

Prevalence of Premenstrual Syndrome in15-49 Age Women in Erzurum Province (Turkey)

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Objective: The aim of this study is to determine the prevalence of premenstrual syndrome (PMS) in 15–49 age women in the province of Erzurum.
Method: The study included 589 women between 15 years and 49 years old from the region of 32 family practitioners selected randomly among 113 family physicians in the provincial center. Prevalence of PMS was determined by Premenstrual Assessment Form (PAF). The form filled with face to face interview by an experienced psychiatric resident. In the analysis of the data, sample is divided into three clusters with K-means cluster analysis according to the severity of symptoms. Cluster analysis of the sample according to the PAF with severe symptoms, the third group was considered to be at risk group that meet the criteria for PMS.
Results: In this study, 14.1 % (n=83) of the women had severe symptoms and meet criteria for PMS-risk groups were adopted, 26.7 % were determined with only mild symptoms according to cluster analysis of PAF. The prevalence of PMS was higher in single and illiterate women, in women who had history of a mental disorder and who were undergoing treatment for a mental disorder. The most prevalent symptoms were having decreased energy or tend to fatigue easily (77.8 %), having tired legs (75.7 %), tend to have backaches, joint and muscle pain or stiffness (68.4 %), feeling jittery or restless (68.4 %), feeling anxious or more anxious (66.9 %), having intermittent pain or cramps in the abdomen (66.0 %).
Conclusion: PMS symptoms are common among women 15–49 years of age. Women should be given training on the symptoms of PMS, awareness should be increased and should be given advice on ways to deal with.

Depressive Disorders, Related Factors and Impact on Functionality in Reproductive Age Women in Erzurum (Eastern Turkey)

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Objective: Several factors have been considered to be contributors to depression. Perinatal period is important for vulnerability to depressive disorders. Prevalence of Postpartum Depression changes between 14 % and 29 % in Turkey. Lifetime prevalence of Major Depressive Disorder is high in Eastern Turkey. Therefore, the real prevalence of postpartum depression is still unknown. We aimed to evaluate the depressive disorders and associated factors in a large sample of reproductive age women who are not in prenatal or postnatal period.
Method: We used General Health Questionnaire-28 and Edinburgh Postpartum Depression Scale as screening tests in 589 women between the ages of 15–49 in Erzurum. Associated factors were established with the socio-demographic questionnaire. Prevalence of Depressive Disorders was determined by SCID-I, severity of depression was assessed with Hamilton Rating Scale for Depression. General Assessment of Functionality, Brief Disability Scale, and Scale of Perceived Social Support from Family were administered to evaluate functionality, disability and social support.
Results: Results of the study showed that 32.8 % of women had Depressive Disorders. Being a widow or divorced, having low levels of education and income, being a housewife or worker, marriage and giving birth at an early age, having an unemployed spouse and possessing three or more children were associated with Depressive Disorders. While 84.0 % of women who were diagnosed with depressive disorders presented with mild or moderate depression, 82.9 % of them appeared to suffer from disability. We found a negative correlation between functionality, social support and severity of depression.
Conclusion: Since there is a high prevalence of Depressive Disorders throughout a woman's life, it is extremely important to consider all periods in terms of diagnosis and treatment.

A Pedometer-Based Walking Intervention for Antenatal Depression

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Aims: In spite of the high prevalence of antenatal depression and associated negative outcomes, rates of treatment engagement remain low. Many women do not seek treatment due to potential adverse effects of prenatal antidepressant use. New interventions are needed that are not only efficacious in treating antenatal depression, but are also viewed as acceptable by pregnant women. Evidence suggests that exercise has beneficial effects on psychological functioning, and has been shown to improve depression levels in non-perinatal samples. However, no study has yet evaluated the efficacy of a physical activity intervention for depressed pregnant women. Increased activity during pregnancy could provide several advantages. It not only avoids potentially harmful medication side effects, it may also be viewed as less stigmatizing. Data shows prenatal exercise has a positive affect on mood, and may alleviate common pregnancy discomforts, and improve general health outcomes. A physical activity-based intervention may also be cost-effective, flexible, and accessible.
Methods: In this 10-week pedometer-based walking intervention, participants wear a small step-counter to track daily activity and attend brief biweekly sessions to obtain personalized support in gradually increase their daily step-count over the course of the intervention. All women are medically cleared by their prenatal care provider prior to participation. Women are monitored over the course of their involvement with regard to depression severity, physical injury, or difficulty with the walking program.
Results: To date, seven depressed women between 12 weeks and 24 weeks gestation have enrolled. No injuries or adverse events have been observed. Women have reported positive feedback. Five women have completed the program, and data have shown depression symptom levels to generally be lower upon completion. The majority of women have successfully complied with daily pedometer use.
Conclusion: A gentle walking intervention may be an acceptable and feasible intervention to address antenatal depression. If findings continue to be encouraging, this approach should be examined in a larger scale randomized controlled trial.

A Dyadic Model of Treatment for Postpartum Support and Education Groups

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For the past 5 years, Dr Birch has offered fifteen10-week support and education groups to a total of 135 mothers and 136 babies . To be eligible to participate, mothers must score above 10, he clinical cutoff on the Edinburgh Postpartum Depression Scale. The goals of these groups are to decrease maternal depression, increase positive emotional exchanges between mother and baby, and foster social support and increased understanding of the importance of maternal mental health for infant emotional deveopment.
We describe the model of postpartum emotional disturbance that underlies our intervention, and the intervention itself. We also describe the population that received the intervention and the outcome measures we have achieved.
2. A dyadic/intersubjective model of postpartum depression and anxiety
We conceptualize postpartum emotional disturbance as a dyadic disorder in which the physiological and psychological stresses of labor, delivery and infant care on the mother combine with the immature, unregulated affective states and absolute dependency of the infant. These combined stresses overwhelm the vulnerable mother's prior coping strategies and impede her capacity to delight in her baby and engage her baby in pleasurable emotional exchanges. This results in infants being less interactive, precociously self-reliant and self-soothing, and experiencing fewer states of heightened positive affect.
3. Intervention
a. Description & rationale for interventions components
i. Mindfulness training, Relaxation & focus for mothers
ii. Infant massage instruction
iii. Snack

iv. Facilitated Discussions re below:
1. Body:the mother's body, the baby's body and dyadic mental health
2. Mind:the mother's mind, the baby's mind and dyadic mental health
3. Heart & spirit: the mother's heart and spirit, the baby's heart and spirit and dyadic mental health
v. Childcare is provided for toddlers and preschoolers of participating mothers
vi. Reminder/check-in calls
4. Sample description
5. Outcomes
6. Conclusions and further questions

Two-Person Consultations in Perinatal Care Psychologist-Psychomotor Therapist

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Objective: An action which aims to anticipate, accompany and support the child's development, the quality of interactions and access to parenthood within the structure of the Perinatal and Early Care Unit.
Method: Two-person consultation with psychologist-psychomotor therapist for the baby and his/her parents:
- *Two-person consultation* :
• a body-oriented approach in a caring setting, with a common « take care » therapeutic attitude.
• emphasis on our containing/supporting functions. Use of our professional identities during analysis of the consultation.
- *The space-time framework* :
• regularity: weekly meetings.
• support for the emergence of bodily and psychological movements—free for each participant (parent and baby, according to his developmental level). This allows the observation of rhythms, constants, the centres in different fields: child's interests, interactions, words and attitudes of the parents, group movements (with different here-and-now organisations (4, 3+1, 2+2)).
• support of a momentum towards the other and autonomy in terms of living and experiencing separation.
• analysis after the consultation.
- *The theoretical framework* :
• under-lying theory based on the psychological and subjective development of the child, considering:
▪ the process of individualisation draws on bodily cues (senses, motricity, posture,…) in the relation to the other.
▪ the necessity to take into account the continuous back-and-forth between the intra-psychological and the intersubjective.
Results: Effects of setting, facilitating the process :
- *Many levels of support*, in a to-and-from movement: of the adult, the child, the body and the psyche.
- *Harmonisation* of the ways of coming into contact and communicating between all the partners *from the bodily level (primary symbolisation) through to language* .
- *Construction of a narrative*, of a link and of fantasmatic interactions in different space-time frameworks: here-and-now, therapeutic pathway, family history.
- *Support of individualisation and parenthood processes*

Conclusion: This is a containing framework allowing working from the primitive to the present symbolic of the child and his/her parents. This setting thus offers a large range of care in perinatality as well as in the field of child psychiatry.

Breastfeeding and Postpartum Depression: Breastfeeding Promotion Intervention Program

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Breastfeeding is associated to several health benefits, both to the child and to the mother. The World Health Organization recommend as health priorities the exclusive breastfeeding during the child's first 6 months of life, as well as the identification of women at risk of breastfeeding early abandonment. Studies from diverse socio-cultural contexts show that postpartum depressed mothers tend to breastfeed less or for less time than non-depressed mothers.
It is demanded to the health professionals the improvement of the breastfeeding rates, by creating strategies to promote it.
As depression during pregnancy is the best predictor for postpartum depression, we propose to create a Breastfeeding Promotion Intervention Program (BPIP) to be implemented in depressed pregnant women, thus validating this strategy to increase breastfeeding rate and decrease the rate of postpartum depression in women at-risk.
The BPIP combines three factors as to achieve successful breastfeeding: the mothers' decision to breastfeed, successful breastfeeding initiation, and support in maintaining breastfeeding. It consists in several approaches regarding the different moments of implementation:
• Pregnancy
1: 34th week: Explain the BPIP; Benefits of breastfeeding; Breastfeeding techniques; Importance of support.
2: 36th week: Discussion about breastfeeding feelings, concerns, and attitudes.
• Childbirth
48 h after: Mother's feelings and concerns about breastfeeding; Benefits of breastfeeding; Breastfeeding techniques; Support and confidence in mother's ability to breastfeed; Breastfeeding problem solving; Newborn's competences to be breastfed.
• Postpartum
1: 1st week after: Collect information about breastfeeding condition; Questions and doubts; Mother's feelings and concerns about breastfeeding; Benefits of breastfeeding; Breastfeeding techniques; Breastfeeding problem solving; Support to breastfeeding continuation; Newborn's competences to be breastfed
2: First 15 days after: the same as 1; Support and confidence in mother's ability to breastfeed; Monitor child's weight to increase mother's confidence.
3: 1st month after: the same as 2.
4: 3 months after: the same as 3; Importance of breastfeeding continuation for at least 6 months.
5: 5 months after: the same as 4; Design strategies to continue breastfeeding after returning to work.
This study will provide empirical evidence to validate the BPIP in decreasing the risk of breastfeeding early termination, improving the breastfeeding rate and preventing postpartum depression.

A Time of Opportunity—Pregnant Women in Therapy in an Out-Patient Clinic

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Background: The latter is being increasingly confirmed in neurobiological research, making it evident that many epigenetic changes take place prenatally and in early childhood. It is therefore important that women at risk are identified for adequate intervention. This work presents 3-years of experience from a specialized outpatient unit for pregnant women.
Methods: Women are referred from GPs and midwifes, and undergo a first assessment, including evaluation of depression and suicidality. Cooperation with primary health care is established for all women. The women receive intensive therapy focusing on neuroaffective regulation and, postnatally, evaluation of the child and intervention into the mother/father-infant relationship. Finally, the child is evaluated with DC 0-3R.
Results: 43 referrals, falling into three categories:

- 8 women referred because of pre-existing marginal cognitive or social level of function. These women had problems that were too extensive to handle within the frames of this unit. They were referred to more appropriate authorities after a mean of 3 appointments. The children were not formally evaluated.
- 9 women referred because of pre-existing psychiatric diagnoses. These women had on-going psychiatric treatment, but needed more specialized help concerning pregnancy and motherhood.
- 26 women referred because of pre- or post-natal depression. Most had classic symptoms with anxiety, obsessive thoughts and/or depression. The mean number of appointments at the unit in the two latter groups was 20 (range 10–40). Only 2 children were given a tentative diagnosis in axis 1. At the termination of the therapy, the PIRGAS-scores had improved in all relationships to a mean of 80. All women were contented with the therapy, many describing the process as a "turning point".

Discussion: The heightened vulnerability in pregnancy represents an important opportunity for creating change, because the parents are more psychologically receptive . The perinatal period therefore constitutes a unique developmental opportunity for both parents and child. Affective regulation is a key component in the therapeutic approach, and the therapist needs to have specialized insight into the psychology of pregnancy and the needs of the fetus and newborn baby.

Mindfulness-Based Cognitive Therapy for the Prevention of Perinatal Depression (MBCT-PD): The Roles of Participant Homework Practice and Therapist Adherence in Participant Outcomes

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Aims: Maternal depression during pregnancy significantly increases risk for the development of depression in the postpartum and for adverse infant outcomes. Mindfulness-Based Cognitive Therapy (MBCT) has strong support for its effectiveness in preventing depressive relapse and immense potential for the prevention of perinatal depression. We aimed to identify potential mechanisms underlying MBCT for perinatal depression (MBCT-PD). Specifically, we examine the influences of participant homework practice and therapist adherence on mindfulness, acceptance, and prevention of depressive relapse.
Methods: Participants were 49 pregnant women with a prior history of depression who completed the open trial phase of a project designed to evaluate MBCT-PD. Participants completed The Weekly Record and Follow-Up Record, a project designed measure of the extent to which participants practiced key skills taught in the intervention. Trained and reliable raters reviewed a random subset of 20 % of the videotaped sessions using the MBCT-PD Adherence Scale (adapted from MBCT-AS; Segal et al., 2002) to assess the extent to which clinicians delivered the intervention with fidelity as specified in the treatment manual. We will examine associations between therapists' use of practice-targeted factors of adherence and participant time spent in weekly homework practices. We will also test whether time spent completing homework predicts fewer depressive relapses and increased levels of mindfulness and acceptance.
Results: We expect to find a positive relationship between therapist adherence targeted toward participant practice and participant time spent on weekly homework. Furthermore, we expect to find that more time spent on weekly homework is associated with less depressive relapses and higher levels of acceptance and mindfulness.
Conclusion: Given the empirical support for MBCT, MBCT-PD has promising implications for preventing the future development of depressive episodes and associated consequences among women at risk for perinatal depression. The mechanisms underlying MBCT-PD, however, have yet to be understood; uncovering these mechanisms has the potential to help enhance the effectiveness of the intervention, with the ultimate benefit being lower rates of perinatal depression among women at risk.

Parent Infant Units: Challenges when Managing Acute Maternal Illness and Attachment Issues

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Aims: Review admissions in 2010 to a public parent infant unit and compare to a previous review in 2002.
Methods: Collated statistics and file review for admissions to the Austin Parent Infant Unit from January 1st to December 31st 2011. This was compared to data from 2002[1].
Results: There were fewer admissions (54 cp 90) as a result of longer length of stays (30 days vs 17 days). Referral rates were still high (122) meaning many women were not able to be managed in the inpatient. Diagnoses of major depression and psychotic episodes were similar percentages of admissions but admissions of women with primary borderline personality disorder increased four fold.
Discussion: The admissions of more women with borderline personality disorders and a longer length of stay appears to be due to

a significant shift in unit philosophy, which over the last few years has adopted attachment theory in both inpatient treatment and in linking to outpatient groups and outreach services on discharge that continue this philosophy. In keeping with this, recognition of the potential risk to the children of women with borderline personality styles and the opportunity for early intervention and prevention has meant more involvement with a previously neglected group of mentally ill mothers. This involves both individual and group based programs and use of video [2].
Conclusions: Inpatient MBU's have a role in not just treating the mother but for early intervention in improving outcomes for children. Because of the high demand on the beds and the intense nature of the work, step down units and more services in the community to work on parenting and attachment may aid in earlier discharges and higher turnover.

Postpartum Mood Disorders, Attachment, and Babies in the NICU

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Aims: Approximately 15 % of all mothers suffer from postpartum mood disorders, but this diagnosis is more frequent and the level of distress more severe in mothers who have babies in the neonatal intensive care unit (NICU). They often struggle with posttraumatic stress as well as with the more common postpartum complaints of depression and/or anxiety. These disorders both emerge from and contribute to attachment difficulties between mother and baby, and both attachment difficulties and postpartum mood disorders are known to cause significant cognitive and emotional delays in children. This is of special concern for NICU babies who are already at high risk for developmental difficulties. The purpose of this presentation is to identify the specific obstacles to successful maternal infant bonding on the NICU unit, and to provide solutions that prevent/treat both attachment and mood disorders in this special population.
Methods: A comprehensive review of postpartum mood disorders, attachment processes, and parental experiences of the NICU was performed and combined with the author's extensive experience counseling such clients. A theoretical paradigm was developed with the goals of (1) delineating specific threats to secure parent-infant attachment in the NICU;; (2) identifying particular NICU related phenomena that may predispose parents to developing PMADs.
Results: It is well documented that postpartum mood disorders negatively affect all family members, threaten the marital bond as well as the parent–child bond, and increase the neonate's likelihood of developing cognitive, emotional, and behavioral difficulties.
Conclusions: A unique paradigm for enhancing the family stability and emotional health of parents with babies in the NICU is necessary in order to better protect the overall mental health and development of these families. The use of the Adult Attachment Inventory, the Hero/Heroine approach, and a redefinition of attachment tasks provide promising approaches for this at risk population.

The Effects of Parents' Depressive Symptoms Over Pregnancy and Postpartum on Toddler's Behavior Problems

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Background: Mothers' and fathers' depressive symptoms have been previously identified as risk factors for behavior problems in children. However, little is known about the effects of parents' depressive symptoms during pregnancy and postpartum on toddler's internalizing, externalizing and total behavior problems.
Aims: To study the actor and partner effects of mothers' and fathers' depressive symptoms over pregnancy and postpartum on their identification of toddler's internalizing, externalizing and total behavior problems.
Method: 129 couples (N=258), recruited in a maternity hospital, completed the Edinburgh Postnatal Depression Scale (EPDS) at each pregnancy trimester, childbirth, three and 30-months postpartum. At the last assessment, each parent also filled in the Children Behavior Checklist (CBCL 1 ½–5 years old). The Actor-Partner Interdependence Model (APIM) was used to determine how outcomes were influenced by both members of the dyad (mother and father).
Results: Mothers and fathers whose depressive symptoms increased during pregnancy identified more internalizing, externalizing and total behavior problems in toddlers, whereas fathers whose symptoms increased during postpartum identified more externalizing and total behavior problems in toddlers. Fathers whose wives had higher symptoms at the first pregnancy trimester identified more externalizing and total behavior problems in toddlers. Mothers and fathers whose spouses had higher symptoms at the first pregnancy trimester identified more internalizing problems in girls.
Conclusion: Toddlers' behavior problems were predicted by parent's depressive symptoms over pregnancy, fathers' symptoms over postpartum, and also by parent's own and their partner's symptoms at the first pregnancy trimester. Thus, partners' depressive symptoms at early pregnancy can be identified as a possible psychosocial stress factor which affects children behavior. Interventions to reduce depressive symptoms in parents since early pregnancy and throughout postpartum should be developed to prevent toddlers' behavior problems.

How Women Become Mothers After Receiving an Oocyte Donation?

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For more than 20 years, the oocyte donation allows infertile women who can't benefit from an in vitro fertilization, and those who don't want to transmit their genetic disease, to be pregnant and to give birth. This Assisted Reproduction Technology leads women to ask help of an egg donor and give up transmitting their genetic filiation. Our research

led at the CECOS of Cochin Hospital (Paris) is interested in infertile women who received an oocyte donation. Objectives: The aim was to clarify the psychological issues mobilized by the infertility and oocyte donation, and to determine whether these two experiences can be elaborated during and after pregnancy. Method: At 7–8 months of pregnancy and at 3 months of the child, we met ten infertile women who received an oocyte donation. We carried out semi-structured interviews inspired by the Interview for maternal representations during pregnancy (Ammaniti. et al., 1999), and by « l'entretien « R » » (Stern et al., 1989) after birth. Self-questionnaires assessing depression and marital satisfaction were used during and after pregnancy. The Prenatal Attachment Inventory (Müller, 1993) was also used to assess prenatal attachment. At 3 months of the child, the Lausanne triadic play (E. Fivaz et al., 1999) assessed the family alliance. Results: The pregnancy is not systematically a period where women are able to work trough feelings towards infertility and oocyte donation experience. In fact, in spite of the pregnancy, most of women remain narcissistically injured. After the birth, motherhood experience variably allows the continuation of an elaboration process of the infertility and the oocyte donation experience. Most of the women need to be reassured against their fear that their child might not recognize them as mother later. Their child relationship is also particularly invested, sometimes to the detriment of the father's place. In this case, we noticed a parental conflict during the Lausanne triadic play. These results lead to wonder about the destiny of these fears and about their influence on the parents-child relationship some years after birth. Moreover we have to think how to help better those couples to deal with psychological issues mobilized by this assisted reproduction technology.

The Maternologie: A Medical Specialty of Maternity

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It is surprising that the psychic side of human motherhood does not give rise to a specific medical consideration. Motherhood is more subject to sense and morality. Motherhood in women would be a natural phenomenon that equated to the characters of the mammalian animal model. It would be of biological processes implemented by an instinct of reproduction which leads to the maternal instinct. Human pregnancy is reduced to the general definition of "wear and put a child in the world".
Thus is expected to conform to social and moral imperatives maternal behaviors. It must be a "good mother". If for the most part it relies on obstetrics, it is clear that there is no mental obstetrics. Yet, at least 10 % of the workers have post-natal mental disorders. Thus in France this is at least 80,000 mothers in distress and all children in danger of birth, without counting the destabilized fathers and couples made evil. What responses are made to these family suffering. In recent years, the focus has been on networks of perinatal with behavioural signals arising from external observation of interactions and social criteria. Missing a clinic of base to meet the characteristics of the early maternal relationship and the natal development issues . The baby was further studied. But the psychopathology is set after coming to the world, leaving aside the huge Odyssey of prenatal life. Or the newborn a vital needs for which no native adaptation is genetically expected.
In sum, the maternity and human birth, either the origin of our existence is sealed.

The Maternologie of Saint-Cyr-L'Ecole was established in 1987 in J.M. Charcot "Yvelines-France" hospital to treat the psychic maternity and the process of the psychological birth. Therefore it is akin to a mental obstetrics. This service has been award by the Ministry of health in 1995. The Maternologie is defined by the Grand Robert de la Langue Française Edition 2001. It is referenced in the I.N.P.E.S. 2010 brochure.

Mother-Baby Unit in Poitiers (France)

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The Mother-and-Baby Unit was set up as a full-time service in 1996, in partnrship with the Henri Laborit Psychiatry Department of the University Hospital and the Paediatrics Hospital of the University Hospital Centre in Poitiers.
In 2002, the Unit wished to expand and it was transferred to the site of the psychiatric hospital. As a result, the service was reorganised into a hospital department working on a weekly basis with closure over the weekend; one bed was made available through lack of nursing staff.
The multidisciplinary team is made of two psychiatric-cum-pedopsychiatric hospital practitioners, a psychiatrist, a clinician psychologist, hospital executives, both senior and junior, nine nurses, a nursing auxiliary, a social worker, a medical secretary, an employee of the hospital services (all part-time, except for the nurses and the auxiiary nurse).
An evaluation is done before mother and baby are admitted into the Unit, or for monitoring progress. Mothers are only admitted as "free hospital users". Several risk factors can be identified at surgery, such as broken-up couples during pregnancy, the social isolation of the family, lack of medical supervision during pregnancy, teen-age pregnancy, depression running through antecedents, psychic trauma.
The Unit is set up for the prevention of psycho-affective disorders in babies especially while the staff is trying to establish a quality relationship between the two. This means dealing with any pathology in the mother and using a therapy on any interactions involving the pair, and including the father whenever possible. Besides, nursing staff provide specific care for the baby, if need be.
Therapy includes drugs, individual talks with the mother and family to smoothe over psychological difficulties.
Several means are also used to alleviate problems, such as singing, massage, walks outside the hospital precincts or puppet shows.
The partnership is particulary developed with the Infant and Maternal Protection, Infant Social Help, the psychiatric and pedopsychiatric department social services & maternities.

A Longitudinal Analysis of the Predictors and Antecedents of Postnatal Depression in Australian Women

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Aims: The aim of this presentation is to explore the relationship between a range of psychological, health and social factors and

postnatal depression (PND). In particular, both proximal and distal measures of factors were utilised in order to explore the associations between these factors and PND.
Methods: Data were collected over a 13 year period from the 1973–78 Cohort of the Australian Longitudinal Study on Women's Health (ALSWH). A mixed model of predictors of PND was constructed using a range of measures including previous mental health conditions, history of stressful life events, physical health history, childbirth and reproductive history. Factors were assessed separately. Those factors that were observed to have a significant effect individually ($p<0.0001$ in univariate model) were then assessed in a multivariate model.
Results: Of the 25 factors entered in to a multivariate model, nine factors remained significant in the final multivariate model. The strongest positive associations were for postnatal anxiety (OR=13.79, 95%CI=10.48 to 18.13) and antenatal depression (OR=9.23, 95%CI =6.10 to 13.97). A reverse relationship was found between PND and having a history of postnatal anxiety and antenatal anxiety.
Conclusion: The results indicate that mental health history factors are the most important factor in predicting PND. Indeed the strongest relationship was between PND and postnatal anxiety – comorbidity of anxiety and depression is well documented, and results indicate that this relationship also exists in the postpartum period. Understanding a woman's mental health history holds a very important role in the detection of those who are most vulnerable to PND. These findings also indicate that treatment and management of depression and anxiety earlier in life may have a positive impact on the incidence of PND.

Impact of Interventions for Perinatal Common Mental Disorders Delivered by Non-Mental Health Specialists in Low and Middle-Income Countries: A Systematic Review and Meta-Analysis

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Objectives: Primary: To assess the efficacy of interventions for non-psychotic PCMDs delivered by non-mental health specialists in LMICs compared to usual perinatal care. Secondary: To assess the effect of (1) psychological interventions, (2) health promotion interventions, (3) group-delivered interventions, and (4) individually delivered interventions for PCMDs versus usual care.
Methods: We systematically searched major databases for English language publications describing trials of interventions for PCMDs in LMICs. We included published and unpublished, randomised and non-randomised controlled trials of interventions that aimed to reduce PCMDs. We assessed trials for bias using the Cochrane Risk of Bias Tool and conducted a meta-analysis Results are reported as Odds Ratios (ORs) when PCMD symptomatology is coded as (binary) outcome (present or absent), and as standardised mean differences (SMDs) when coded as continuous data (scores on screening tools). .
Results: Thirteen trials met the inclusion criteria, eight of which had useable outcomes for 16,713 participants. Three trials used a clinical interview to ascertain PMCDs; others used validated screening tools. There were too few trials to assess the effect of treatment interventions and preventive interventions separately. We found that psychological and health promotion interventions led to a reduction in PMCDs compared to usual perinatal care when using continuous data for PMCD symptomatology (SMD −0.29, 95 % CI −0.47, −0.11) but not binary categorizations (OR 0.66, 95 % CI 0.35, 1.22). Psychological interventions led to a significant reduction in PCMDs (OR 0.30 95%CI 0.14, 0.65; SMD −0.45, 95 % CI −0.56, 0.33), compared to usual care; health promotion interventions had a smaller impact (OR 0.93 95 % CI 0.79, 1.09; SMD −0.09, 95 % CI −0.06, −0.01). Individual-based interventions appeared to significantly reduce PCMD symptoms (n= 3198 SMD −0.22 95 % CI −0.44, 0.00), however the lack of group interventions prevented evaluation of this delivery mode.
Conclusions: This meta-analysis provides evidence for the efficacy of interventions for PCMDs delivered by non-specialist health workers. Positive results were consistently reported for psychological interventions, however results are less consistent for health promotion interventions. Individual interventions may be superior although group interventions could be an important mode of delivery in resource-constrained settings.

Community Psychiatric Service Users' Experiences of Discrimination in Relation to Parenthood: A Framework Analysis

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Aims: Experienced discrimination is an individual's perception that they have been treated unfairly because of a mental health problem or diagnosis. Our study aimed to generate a typology of community psychiatric service users' reports of experienced discrimination in relation to becoming or being a parent.
Methods: This is a secondary analysis of qualitative data collected to evaluate England's national anti-stigma programme. Participants were community psychiatric service users in 10 Mental Health Trusts. In a telephone survey participants were asked about experienced discrimination in the past 12 months across 22 life domains using the DISC scale. The present study sample consists of those who responded affirmatively when asked if due to their mental health problem they had been treated unfairly in starting a family or in their role as a parent and gave an example of this. Examples were analysed following the framework method of qualitative analysis.
Results: Of the 304 participants in the present study, 73 % were female, and the main self-reported diagnoses were depression (27 %), bipolar disorder (26 %), and schizophrenia (11 %). 89 examples related to starting a family and 228 to parenting, and spanned both the personal and professional domains. Participants reported discrimination affected them in their roles as fathers and grandparents as well as mothers, and described negative impacts on their children as well as on themselves. Ten themes were identified (e.g. 'I am stopped from having children'), organised under a super-ordinate theme entitled 'People have not appreciated what I need'.
Conclusion: This research is the first to demonstrate the different ways in which community psychiatric service users can feel unfairly treated by professionals and by people in their personal networks regarding becoming or being a parent. Implications for staff supporting such individuals will be discussed.

Appraisal Components of Perinatal Distress

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Aims: Perinatal distress results from the combination of a variety of symptoms of depression, anxiety, and stress; though a significant body of research has focused on deepening the understanding of this phenomenon, the nature of the specific emotional components that underlie postnatal distress needs further clarification. Appraisal Theory suggests that experienced emotions are triggered by and reflect the appraisal of specific situations. The theory describes eight particular appraisals which, when combined, lead to distinct emotional experiences. This study aims to apply this model to postnatal distress to gain a better understanding of the particular emotional components that shape perinatal distress.
Methods: During the third trimester of pregnancy (Time-1), 122 women completed measures of mood and appraisal. Among these participants, 98 completed the same procedure 7–10 days after delivery (Time-2), and 103 provided equivalent data at 10–12 weeks postpartum (Time-3). Mood scales included the Edinburgh Postnatal Depression Scale and the Depression Anxiety Stress Scale. An Appraisal Scale was developed based on prototypical items as described by Schorr (2001).
Results: Correlation analyses showed a significant association between stress and symptoms of depression with low Problem-focus coping potential (PFCP) and low Emotion-focus coping potential (EFCP) at each of the three assessment times. This was complemented by a negative correlation between stress and symptoms of depression, and Self-Congruence at Time-1 and Time-2, and a negative association with Future Expectancy at T-3. Anxiety was related to EFCP at Time-1 and Time-3, and to Self-Congruence at Time-3. Regression analyses revealed Future Expectancy at Time-1 as a significant predictor of symptoms of depression and anxiety at Time-2, and low Future Expectancy at Time-2 as a significant predictor of stress at Time-3. Depressed mood at Time-3 was significantly predicted by EFCP and Self Agency at Time-1 and at Time-2, and by PFCP at Time-1.
Conclusion: These findings suggest that the perceived ability to cope practically and emotionally with pregnancy and maternal-related issues is a fundamental component of perinatal distress, and highlight the role of unmet expectations and lack of congruence with women's goals and motivations in the occurrence of stress and symptoms of depression in the postpartum period.

A 10-Year Etrospective Study About the Evolving of the Children of Schizophrenic Mothers Hospitalized in a Mother-Baby Units in Strasbourg (France)

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The Mother Baby Unit of the CHU of Strasbourg was founded in 2000. 10 % of the 354 mothers admitted in the ten first years of activities of the unit had a diagnostic of schizophrenia (CIM 10).
This unit is located in an adult psychiatric department, so that it can hospitalize babies with their mothers suffering from strong psychiatric pathologies, sometimes severely acute in the immediate post partum or in the first months of the child. We are interested in the involving of these children, with or without their parents after the hospitalization.
The evaluation was done with a questionnaire addressed to the professionals who followed these children and/or their mothers. The questions are about the social, psychoaffective and developpemental evolving of these children. The results that will be presented are actually analyzed but we can already underline the huge fragility of these children.
We also will discuss our results with the already published data about this topic. Our reflection will also deal with the interest of this mother and child units, for the children, at short and long term, and their effects on the mother and child relation in the future.

Nine Strategies to Support Woman and their Partners Emotionally and Psychologically Through Pregnancy and Parenthood

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Aim: To support women and their partners in their personal transitions around pregnancy and new parenthood. To help readers to better understand and navigate the personal and emotional transitions taking place around the huge physical event of having a baby and becoming a new parent.
Methods: After my first pregnancy ended in a tubular pregnancy, I became extremely aware and watchful during my second pregnancy and began to notice all of the personal changes and challenges that were taking place as I transitioned through pregnancy and into parenthood. Life transition is my professional focus and I wanted to help women and their partners through this huge time of life change. I interviewed 100 middle class pregnant women and new parents. From that I identified nine common challenges that come with pregnancy and new parenthood. I created strategies that targeted these nine common challenges. I then used my background in education and personal development to create, or modify tools and build strategies to assist women and their partners through these transitions.
Results: The book: The Pregnant Woman's Companion: Nine Strategies that Work to Keep Your Peace of Mind Through Pregnancy and Into Parenthood. The book contains tools to manage perspectives, help make good decisions, and real-life stories from other's experiences. My hope is that the use of this book during pregnancy and new parenthood allows the reader to better understand and deal with the emotional roller coaster that comes during this time in life.
Conclusion: This book is a tool to help women and their partners be more aware of the personal transitions and empower them to make good decisions for themselves as they move through this major life transition. More research is needed to explore strategies that support the emotional and personal transitional issues of women and their partners through this time. More research is also needed to uncover the true effect of using the strategies in this publication to support the

emotional challenges and personal changes that come with pregnancy and new parenthood for the middle class.

The Work in a Psychiatric Inpatient Mother and Baby Unit in Montesson (France)

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We speak about the history of the unit and about the theoretical orientations chosen from our clinical experiences since 1986.
We describe the results of our care and the therapeutic modalities.
Our objective is to be able to exchange on the work in mother-baby unit with our colleagues of any countries.

Attention Performance in Pregnancy and its Relationship with Depression

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Aims: Hormonal changes that occur during pregnancy lead to physiological changes in women. At the same time, pregnancy has often been associated with cognitive deficits. Patients with depression often complain about paying attention and encounter difficulties in learning and remembering. Studies indicate that patients with depression perform worse in tests that require long term attention. Our aim in this study is to evaluate the changes that may occur in sustained attention in healthy pregnant as well as depressed pregnant women.
Methods: Pregnant women who were randomly selected for the study were administered the Edinburgh Postnatal Depression Scale (EPDS). Those with high scores on the EPDS were administered the Structured Clinical Interview for DSM-IV (SCID) and as a result, 25 patients with depression were included in the study. Hamilton Depression Scale was used to measure the severity of depressive symptoms. 25 healthy controls were matched for gender and level of education. Neuropsychological tests were administered to participants to measure sustained attention.
Results: It was observed that functions related to attention were affected by depression during pregnancy.
Conclusion: Depression during pregnancy may lead to serious health problems for both women and babies. This study indicated that cognitive functions of pregnant women were affected by depression as well.

Effects of Psychological Factors Variations Throughout Pregnancy on Childbirth Issues

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Aim: A growing number of studies show that prenatal stress is associated with various obstetric complications such as spontaneous abortion, fetal growth retardation, low birth weight and preterm birth (Wadhwa. et al., 1993; Roesch et al. 2004; Glynn et al. 2008). According to these authors, prenatal stress has to be understood as a set linking environnemental, personnal and situational factors, the perceptions of woman (perceived stress, state-anxiety, perceived social support) and her response to stress (coping). In addition, physical and hormonal changes alter her stress throughout her pregnancy (Glynn et al., 2008). Therefore, changes into the prenatal stress model should be observable at different times of pregnancy. To our knowledge, no study has measured these indicators from the beginning up to the term of pregnancy. Evaluate these factors variations and examine their effects on pregnancy issues is the aim of this prospective study.
Method: Women were recruited before the 10th weeks of pregnancy in five French maternity hospitals. At T0, they were requested to complete trait-anxiety (STAI-Y) and sociodemographic questionnaires, their gynecologist completed a medical questionnaire. Women also completed a state-anxiety (STAI-Y), perceived stress (PSS), perceived social support (QSSP), and coping (WCC) questionnaires at T0, T1 (5th month) and T2 (9th month). Women with multiple pregnancy, severe somatic or psychiatric illness were excluded. A multinomial-logit model was performed to determine the best model.
Result: 167 women aged 19 to 45, answered all time measurement, 14,37 % (n=24) had obstetric complications. Different perceptual factors have variations depending on personal factors including parity and BMI. The best explicative model (AIC=214,11; LRT=− 44,19, $p<$ 0,05) concerns primiparous whose perceived stress increased between T0 and T1, which used more emotional coping strategy between T1 and T2 and whose perceived social support decreased between T1 and T2.
Conclusions: These results show that perceptual factors present in the first pregnancy trimester affect birth outcomes. They also show that their variations in terms of decrease or increase throughout pregnancy have an effect. This suggests the pyschological support of women at high risk should occur earlier in pregnancy.

Two Cases of Unusual Presentation and Course of Postpartum Psychosis

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Case 1: A 29 year old caucasian female who was 6 weeks post partum with her first child was admitted to our hospital in a mute state, Patient has been married for 15 years and worked as a bank manager . She had no previous psychiatric history, she had a history of childhood lukaemia that was treated with radiation, Her mother has a history Bipolar affective disorder.
Her husband reported that the patient was mute and for the past 5 days had been unable to take care of herself or the baby, she was “always in fog”.
Patient was seen staring blankly into the space most of the time. She denies hallucination, delusions or obessions.
Treatment Course over 4 years:
1) Patient responded to Quetiapine 250 mg daily at bed time and lorazepam 0.5 mg twice per day, she was discharged to an Outpatient program.

2) Patient complained of ongoing vertigo, seroquel was tapered off, the she reported new onset floaters in her visual fields, Brian MRI showed, 6×5 cm posterior occipital meningioma.
3) patient had a total of 9 surgeries over 2 years, she has no other symptoms of psychosis but developed significant depressive symptoms.that reponded to escitalopram 30 mg, bupropion XL 300 mg and risperdal 1 mg.
4) Three years after the first psychotic episode the patient was able to return back to work, she continues to be maintained on the above medication. Her major stressor now is ongoing marital conflict for which she is receiving weekly therapy.
Case 2: A 30 year old female from pakistan who is 9 months postpartum with her first child was brought to the emergency room by her husband for odd disorganized behavior. Patient had no previous psychiatric history.
Patient was treated with Depakote 2000 mg and Abilify 30 mg, She was discharged home after a 4 week inpatient hospitalization. She decompensated within 1 week and was readmitted again, There was significant domestic violence in the household along with other psychosocial stressors, including social isolation, unemployment and spouses anger issues. Once these were addressed patients symptoms cleared up.

Obsessive Symptoms at Childbirth

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Aims: OCD is more frequent in pregnancy (third trimester) −3,5 %- and post partum—4 to 9 %. Puerperium is at risk for onset of OCD and OCP. Most common obsession are contamination (75 %), aggressive (33.3 %), and symmetry/exactness (33.3 %), and the most common compulsions are cleaning/washing (66.7 %) and checking (58.3 %). OCP is a risk factor for post partum onset of OCD.
Our aim was to analyze a sample of women at the moment of their admission for delivery and to pinpoint similarities or differences with Literature data.
Methods: This paper is representative of a pilot study for a screening on mental health conditions immediately after delivery. We selected women during their admission for delivery and analyzed them from a sociodemographic point of view and through administration of EPDS, BDI, BAI, WHOQOL and SCID II.
Then we compared Obsessive- Compulsive patients (diagnosed at SCID II) [OC] with SCID II negative patients [NEG] in order to highlight possible differences.
Women admitted for labor: 61
Time of recruitment: 2 weeks
Results: In this particular discussion, since the aim of the present paper, we considered only women negative at SCID II (32 women) or positive for Obsessive compulsive personality disorder (18 women). The OC part represents=11 % of our sample.
From a sociodemographic point of view they had statistically significant differences:
□ Work: housewife OC (27,8 %) vs NEG (9,4 %); unemployed OC (11,1 %) vs NEG (3,1 %); employees OC (38,9 %) vs NEG (62,5 %)
□ Schooling: degreed OC (38,9 %) vs NEG (46,9 %)
□ Labor:emergency cesarian OC (21,4 %) vn NEG (10,3 %)
□ Previous treatment: OC (outpatient department + private psychiatrist + psychologist) 11,1 % vs NEG 0 %; only Psychologist OC 16,7 % vs NEG 6,3 %
□ Past drug intake: Antidepressant OC 11,1 % vs NEG 0 %
□ Illicit drug abuse: 5,6 % OC (previously) vs 0 % NEG
□ Siblings: OC has 1 son (42,9 %) 2 sons (35,7 %) vs NEG 1 son (58,1 %) and 2 sons (21,9 %)
□ Miscarriage: OC (22,2 %) vs NEG (31,3 %)
□ Previous Oestroprogestinic intake:OC (66,7 %) vs NEG (81,3 %)
□ Complication during pregnancy: OC (38,9 %) vs NEG (21,9 %)
□ TEST:
WHOQOL PSYCHOLOGICAL OC:22,05 NEG: 23,66 p=0,46
WHOQOL ENVIRONMENT OC:28,32 NEG:31,09 p=0,015
WHOQOL PHYSICAL OC:23,37 NEG:26,72 p=0,011
BAI OC:14,58 NEG:5,75 P=0,005
BDI OC:5,63 NEG:1,72 p<0,0001
Conclusions: The groups clearly differ from many points of view. In particular, from a test analysis we are able to underline that OC feels less confident in their environment and perceives less Physical wellness. BAI and BDI are statistically different, even if OC scores small level of anxiety or depression.
Since these evidences, we hope a more detailed and huger research on this matter.

Escitalopram in Pregnancy and Postpartum: Maternal Efficacy and Neonatal Outcomes

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Aims: Since the impossibility to administer drugs in pregnant women for research purposes, ethical issues often collide with the balance risks/benefits. Our aim was to testify efficacy and to document possible side effects—both in mother and child—or teratogenic ones.
Methods: Study design: longitudinal. Time of recruitment: 2009–2011. Test: sociodemographic and anamnestic inventory, EPDS and CGI (time 0, follow up after 3 and 6 months)
Results Patients: 33
EPDS T0 T3 T6 P ANOVA
Average score 16,73 7,75 4,47 P<0,0001
POST HOC P<0,0001 P=0,08 Cut-off=12
CGI-severity T0 T3 T6 P ANOVA
Average score 4,74 3,89 3,53 P=0,0001
POST HOC P=0,02 P=0,392
CGI-improvement T3 T6 P ANOVA
Average score 1,93 1,32 P=0,05
CGI-Efficacy Index
(Therapeutic Effects/Side Effects) T3 T6 ANOVA
Average score 4,52 2,42 P=0,013
T3:37 % TE marked/no SE 26 % TE moderate/no SE

T6:68 % TE marked/no SE
From a sociodemographic and anamnestic point of view :
Mostly are married (63,3 %) or common-law wife (30,4 %); university (39,4 %) or high school (45,5 %) graduate; employers (72,7 %); No alcohol (97 %) tobacco (84 %) or illicit drugs (97 %) intake; Oestroprogestinic intake (31 %); Labor: natural (54 %) or planned caesarian (24 %); 60,6 % delivered their first son, 15 % were pregnant; no previous miscarriage (79 %) neither voluntary (91 %); No attempted suicide (90,9 %); no psychiatric admission (97 %); previous antidepressant intake (48,5 %); none of the patients had a breast feeding.
Previous Escitalopram Intake: No (72,7 %); in post partum (13 %); during pregnancy (25 %).
During recruitment period: average dose: 11, 45 mg (10 mg=69,7 %); no benzodiazepine (36,4 %); No mood stabilizer or antipsychotics (94 %). No side effects (93,9 %). No teratogenic effects in offspring.
Diagnosis: 36,6 % post partum depression; 18 % obsessive compulsive disorder + generalized anxiety + panic attack disorders; 15 % anxiety or mild depression
Familiarity: None 36 %; 26 % maternal depression + post partum depression; 12 % paternal depression or anxiety; 17 % anxiety or depression in first degree relatives
Administration Rational: 72,7 % depression with other symptoms (36 % only depression); 18 % anxiety or phobias; 21 % perfectionism
Conclusions: Our results testify Escitalopram intake efficacy during pregnancy and post partum and that there's no need of a dose increase but a dose according to drug guide lines is enough in most of the patients. Moreover it's important to underline that no teratogenic effects have been signaled if taken during pregnancy.

Presentation of our Mother-Baby Unit in Zoersel (Belgium)

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The MBU at the PC Bethanië in Zoersel (Belgium) exists since 1985 and is part of a large psychiatric hospital; the unit is intended for mothers with all kinds of postpartum psychopathology, including mothers with previous mental illness, who break down after giving birth.
The unit has the disposal of 8 beds mother-baby fot inpatient stay and beside it possibilities for day care and after-care; mothers and babies were always admitted together (dyades) and the babies may not be older than 1 year.
The multidisciplinary staff consists of: adult psychiatrist, adult psychotherapist, infanttherapist; creative,ergo-, exercise therapists, social worker, nurses and trained children's nurses.
Some important aspects of our therapeutic work at the mother-baby ward:

- we want to create a "holding environment" for the mother and her family. Listening and emotional availability are in the beginning more important than the will of changing the mother and the interaction. Mothers are vulnerable in the postpartum period and when they are admitted in a psychiatric hospîtal they feel themselves even more vulnerable. Only if the mother feels respect and understanding from us, we create safety for her. And only when se feels safe it gives us the possibility to take care of the baby and to support the interaction between her and her baby.
- in the mother-baby interaction we will support the contact and the emotional availability. Contact: eye, tactile, imitation, verbal dialogue with the baby, als verbalisation to the baby from what is happening in the contact with his mother. Emotional availability: we evaluate mother's sensitivity to the baby, the mother's availability of structuring the care of and the play with her baby, non-hostility, non-intrusiveness; and also we look for the baby's responsiveness to the mother.
- the nurses are there for the mother in hand-to-hand accompaniment; they support the mother in the daily care and interaction with the baby; they only take over the care when the mother is not able to do it.
- video-interaction support
- baby-parent psychotherapy
- attention, support for the family, esp. the fathers
- another important goal is to install a supporting social network around the mother and her family.

Day Care in a Mother-Baby Unit in Montfavet (Avignon, France)

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This poster will present the Parent-Infant Unit of the Montfavet Hospital Center for the Prevention and Cure of early relationship problems

- in a service of pediatric psychiatry with a regional mission
- advice and resource center concerning perinatal psychology and psychiatry for professionals working with pregnancies and parents with young children.

I -Public Concerned
Pregnant women
Future fathers
Father and mothers with their infants aged 0 to 18 months
This treatment is offered to parents showing anxiety, depression problems, narcissistic problems, puerperal psychosis, or acute or chronic psychiatric problems that, at first, place them in difficulty in terms of the welcoming and the development of a structuring relationship with their child.
II - Objectives
Prevention and care for troubles in the relationship
Prevention of child development problems
III - Intervention methods
Psychological interviews and medical consultations
• Individual
• Couple
• Family
Mother-infant, father-infant psychotherapy
Psychological care through the body (à médiation corporelle) in groups or as individuals
• Mother-infant
• Father-infant
• For the mother
• For the infant
• For the dyad
Nursing support

Joint hospitalization during the day
• Mother-infant
• Father-infant
• Father-mother-infant
Working in a network
IV- Where
In the facilities of the Unit
In maternity and neonatology departments in hospitals
In the home
V - By whom
A multidisciplinary team: psychologists, doctors, nurses, educators, psycho-motor therapists, social workers
VI -A project of individualized care developed with the patient and family
Based on a careful evaluation

- of difficulties but also of resources of each of the parents and of the infant,
- of interactions and the establishment of ties and attachment;
- of the family circle and the social context.

In conjunction with those professionals already working with them and with those who may be necessary.
VII -Treatment basics
Intervention as early as possible. From antenatal to postnatal.
Bringing together the care and the cure
Notion of holding and continuity
A clinic of interaction and tuning (accordage)
Based on an attentive observation of the infant (Esther Bick, Picker Loczy, Brazelton)
Third party function
Attention to transferential phenomenon
Development of institutional work

Preventing Mother-Baby Relationship Disorders: Which Theoretical Models ?

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Perinatal psychological preventative measures put into question the very definition of prevention. (Bourdillon. F,dir. Traité de prévention. 2009. Flammarion Médecine-Sciences)
The traditional medical model of prevention as a very early treatment is not enough. We need to refer to a more complex concept of prevention that integrates the mother, the baby and their interaction. Prevention is no longer primary, secondary or tertiary but universal, selective, or targeted.
With regard to the parent-infant dyad, especially the mother-baby one, the dichotomy between prevention on the one hand and care and treatment on the other, requires some blurring.
We need recourse to multifactorial models and to non-linear causality: a curative treatment of a mental disorder in the mother may be a preventive factor of disorders in her infant; a curative treatment of the infant may protect maternal capacity and thus prevent a relational disorder.
With regard to universal prevention, the French perinatal Plan (2005–2007- Evaluation du plan de périnatalité 2005–2007.—11 février 2011. DGS. www.sante.gouv.fr), lays the foundation for early prevention by recognition of the emotional dimensions of pregnancy, birth and post-partum: it includes the Early Prenatal Care Interview development, it specifies the tasks of perinatal psychologists and psychiatrists and it strengthens personal networking around each family at risk.
In terms of targeted prevention, the adoption of formal clinical tools enables better assessment of developing signs of psychological suffering of the mother-baby dyad, such as in BMI (Baby/Mother/Interaction) research—(Rochette, J. Mellier, D. Transformation des souffrances de la dyade mère-bébé dans la 1ère année post-partum:stratégie préventive pour un travail en réseau. Devenir, 2007; vol 19, n° 2, p.80–108), or in the research project initiated in our department (Parent–child unit of the service of Prof. F. Poinso)
The use of these formal tools for preventing perinatal disorders requires a particular ethical vigilance—Bourdillon F,; Lenoble E,; Giampino S,; Suesser P,. Prévention et santé mentale de l'enfant:les questions éthiques soulevées par des approches ciblées. Santé Publique, Vol. 23, pp 181–188.

Home Visiting Social Workers and Networking in Perinal Psychiatry

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The experiments we report here you will want to witness this essential complementarity between medical and social support for mothers when returning home after childbirth.
The main difference in the two types of interventions is in the duration, frequency and continuity.
Indeed in the medical, we talk about home visit conducted by midwives, at least two can be supplemented by additional complications if, with time spent near the mother and child is about 1 h. What is normal for an intervention that consists of performing acts carers and a range of information on how to care for the baby.
For social support interventions by french home visiting social workers (TISF), we no longer talk of intervention visit but which is achieved in the duration at least 2 h a day but often 3 h or four or more for certain situations especially twin births . This important time spent at home with mother and child is essential if you want to build a supportive relationship, listening and especially if one wants to set up an observation, for situations of early baby blues or postpartum depression.
The intervention of a TISF can take weeks or months depending on the complexity of family circumstances.

DEDENDERA—An Illness-Cure Journey for the Female Reproductive System and the Voice Through an Artistic Work

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This artistic work has its focus on the feminine body, plenty of fluid and cellular memory.
Through fine art print studio methods, it establishes the crossing between anthropological studies and medicine, in the sense that it explores artisticaally how dealing positively-negatively with an awaiting circumstance (either personal or generational) weakens the basin organs such as the reproductive system, or strengthens it in a way that it enables women to overcome genealogical gynaecological problems.
For this work I've attended conferences, read different approaches from gynaecologists and therapists and even served at a birth house as a volunteer. It was also relevant the empirical experience as a doula apprentice as well as a singer since it also builds up a connection with the voice and how its colour is influenced in an endocrinal and physiological way, and how it is able to produce frequencies in order to nurture the basin back again.
I've worked over material from pathological anatomy, specifically on irregularities of the feminine reproductive device. The series culminate in the use of this sort of materials of complex character.

Depressive Symptoms and Insomnia in 3rd Trimester of Pregnancy—A Population Based Study

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Background: Sleep changes through pregnancy, and poor sleep may have negative effects both on maternal depression and foetal wellbeing. Insomnia may also be a symptom of depression, but both women and health care providers may attribute insomnia to the bodily changes only, and fail to address depression.
Aim: To evaluate the prevalence of and possible risk factors for both insomnia and depressive symptoms simultaneously in the last trimester of pregnancy in a large population of pregnant women, and to examine the relationship between these two disorders.
Methods: A population based questionnaire study of 2816 women was conducted in week 32 of pregnancy in Akershus, Norway. The Bergen Insomnia Scale (BIS) measured insomnia and the Edinburgh Postnatal Depression Scale (EPDS) measured depressive symptoms.
Results: The prevalence of insomnia (DSM-IV-TR criteria) was 61.9 %, and mean BIS score 17.5 (SD 10.5), significantly higher than among the general population. The prevalence of depressive symptoms (EPDS>=10) was 14.6 %. Depressive symptoms were strongly associated with insomnia during late pregnancy, especially with sleep durations <5 or >10 h, sleep efficiency <75 %, daytime impairment and long sleep onset latency. Several pain measures (low back pain, pelvic girdle pain, other chronic pain) were associated with insomnia. Previous depression was associated both with insomnia and depressive symptoms. Stressful life events, fear of childbirth, and younger age were associated with depressive symptoms, but not with insomnia.
Conclusions: Insomnia was highly prevalent in the last trimester of pregnancy, and several pain measurements were associated with sleep problems. The prevalence of depressive symptoms was higher than previously reported among pregnant women in Norway. Daytime impairment and difficulty falling asleep were the insomnia factors most strongly associated with depressive symptoms, whereas pelvic girdle pain and lower back pain were more strongly associated with insomnia.

Presentation of Serge Lebovici Mother-Baby Unit at Le Vinatier Hospital (France)

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Objective: for mothers in psychic suffering, either during pregnancy or after childbirth with their infant, ambulatory or daycare (5 dyads per day). This unit is located in the Centre Hospitalier le Vinatier, psychiatric hospital in the Rhône-Alpes region
Methods: This unit receives essentially chronic multiple pathologies of mental diseases (schizophrenia, bipolar disorder) at the same time as acute pathologies, (postpartum depressions, puerperal psychosis, mental anorexics). This multidisciplinary team works in connection with pediatric nurse and a midwife made available by the General Council of Rhône.

Particularities:

- Working with children by judicial measures
- link with the Pharmacia vigilance service for the adaptation of the drug -treatment during pregnancy
- Study for work with the mothers and fathers schizophrenic in a group of Education therapy

Therapeutic means:

- interviews individual with nurses and neuro pediatrician
- therapeutic groups for varied mediations (groups baby/music, story/book, massage, enlightenment/games)
- uses of video for mothers in great difficulty
- working in network with partners in the region Rhône-Alpes Collaboration with an association of parents

Conclusions: this unit, in this form, exists since January 2000, and the first mother/baby hospitalizations date from December 1991. We have the opportunity to review families followed in the unit and the results of this support show us how, this type of units is essential.

Thinking and Acting Together in Order to Help Parents to Understand Early Difficulties of their Baby: A Unit for Early Screening and Orientation of Young Children (UDOPE)

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Aims: Discover the signs of discomfort, from variations in the normal to symptoms of more pathological psychological organisation in

babies. Allow an innovative double approach of the somatic and psychological clinic, this exchange being all the more important given that the child is young with a problematic which may have both organic and psychological origins. Encourage the expression of parental anxieties in an interactional approach towards the troubles. Construct hypotheses concerning psychopathology which can be shared with the parents in a movement towards specific care if necessary.
Method: UDOPE is an association involving 4 partners drawn from the sanitary and medico-social sectors the Perinatality, Childhood and Adolescence Pole of Erstein hospital, the pediatrics department of Selestat Hospital, the Association of Parents of Maladapted Children with the Centre for Early Medico-Social Action of Châtenois, the Regional Association for Help for Motor Handicaps with the Service and Care and Special Education. The families meet a two-person team, including, each time, a doctor and another professional from the somatic or the psychological fields. After the first consultation, the case is presented at a multidisciplinary clinical review meeting. The team constructs a global view of the baby and their problematic. A second consultation subsequently allows for an interview which orients the family towards a care-plan.
Results: UDOPE permits a double view of the somatic and the psychological at an age when these symptoms may have the same origin. There is continuity between the teams providing screening and care. The effects of the articulation between medical and medico-social in the form of a "integrated reception": families come without preconceived ideas; orientation is precise and speedy towards a rapidly implemented and adapted care-plan.
Conclusion: The way in which UDOPE functions allows us to suspend our normal medical stance in dyadic situations. It opens up to an interdisciplinary clinic which offers parents means of understanding their baby's symptoms as well as facilitating their path towards care.

Age, Assisted Conception, Antenatal Mental Health, Childbirth and Breastfeeding: Evidence from the Parental Age and Transition to Parenthood Australia (PATPA) Study

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Aim: Parental Age and the Transition to Parenthood in Australia (PATPA) is a multicentre, controlled prospective study to investigate the separate and combined effects of maternal age and mode of conception on early adjustment to parenthood in Australian women. One aim was to investigate the relationship among these factors, known psychosocial determinants and the establishment and maintenance of exclusive breastfeeding.
Method: Consecutive cohorts of women aged ≤30, 31–36 and ≥37 conceiving spontaneously (SC) or with assisted reproductive technologies (ARTC) were recruited through public and private hospitals in Melbourne and Sydney, Australia. In the third trimester of pregnancy, participants completed a structured interview and self report questionnaire which included the Edinburgh Depression Scale (EDS). At 4 months postpartum, follow-up telephone interview and questionnaire assessments included aspects of childbirth and breastfeeding. Factors which were associated in univariate analyses with the outcomes: exclusive breastfeeding on discharge from maternity hospital and 4 months postpartum were included in logistic regression models.
Results: Participants were 549 primiparous women aged 20 to 51 years, with singleton births; 272 (50 %) ARTC. Age was not associated with exclusive breastfeeding at either time. In multivariable analyses controlling for other relevant factors, higher EDS scores in pregnancy (AOR 0.94, p=0.008), ARTC (AOR 0.542, p=0.003) and having a Caesarean birth (AOR 0.642, p=0.039) were associated with lower likelihood of exclusive breastfeeding on discharge from maternity hospital. Four months postpartum non-exclusive breastfeeding was associated with ARTC (AOR 0.59, p=0.02), worse general health in the third trimester of pregnancy (AOR 0.80, p=0.02), less satisfaction with maternity hospital lactation advice, (AOR 0.75, p=0.042), having a non-professional pre-birth occupation (AOR 0.58, p=0.02) and speaking English as a second language (AOR=0.65, p=0.04).
Conclusion: Depressive symptoms in advanced pregnancy, assisted conception, caesarean birth and poor lactation advice are risk factors for the early introduction of infant formula, especially among women of lower socioeconomic position. These can be readily identified by health professionals and suggest that additional breastfeeding support could be focused on women with these characteristics

Masada Private Hospital Mother-Baby Unit: An Australian Residential Early Parenting Program

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Background and aims: Australia's residential early parenting services appear to be unique. They provide brief joint admissions to structured psycho-educational programs for women with their infants or young children. Programs focus on increasing caregiving knowledge and skills, addressing occupational fatigue, reducing anxiety and depression and thereby promoting more confident adjustment to the work of mothering. There are state-provided public-access early parenting services in free-standing facilities in all Australian states and a small number of private services in suburban hospitals in some states. Masada Private Hospital Mother-Baby Unit, staffed by a multidisciplinary team, is located within an 80-bed suburban hospital in Melbourne, Australia. The aim was to investigate maternal mood and confidence in caregiving and infant behaviour during and after program completion.
Methods: A prospective study of a consecutive cohort of women admitted with their infants and assessed during the admission and 1 and 6 months after discharge. Data were collected by self-report questionnaires which included study-specific questions and standardised psychometric instruments to assess sociodemographic factors, reproductive and perinatal health, practical and emotional support, past personal and family history of abuse, psychiatric illness or emotional difficulties requiring professional help; maternal confidence and infant behaviour and temperament.
Results: Of 104 women admitted during the recruitment period, 80 (81 %) agreed to participate and 69 (86 %) completed the 1 month and 67 (84 %) the 6 month assessments. They were aged 33.5 years on average and all were partnered (86 % married) and held private health insurance. The infants, whose behaviour was very unsettled, were on average 32 weeks old. On admission 48 % scored >12 on the Edinburgh Postnatal Depression

Scale, by 1 month post-discharge 13 % and by 6 months 7 % scored >12 (p <0.01). Total infant crying and fussing in 24 h reduced by 50 % from admission to one-month, sustained at six-month follow up. Overall 34 % of women felt less than fairly confident about caregiving capability on admission, which reduced to 10 % and 2 % at follow up.

Conclusions: Brief admissions to residential structured psycho-educational programs appear to lead to rapid and sustained improvements in women's mood and caregiving confidence and reduce unsettled infant behaviours.

Are the Developmental Risks Associated with Children of Mothers Suffering from Schizophrenia Connected to the Heightened Risk of Placement for these Children?

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Motherhood in patients with schizophrenia and their separation from the child is an issue that always raises debate:
- The risk of the child being fostered is higher than that for the general population: only 39 % of children are raised by their mother until the age of 3 years [3]
- Mother-infant separation for these dyads does not seem to reduce the children's subsequent psychiatric and psycho-pathological risks [1]
- This mother-infant separation can be harmful to the baby's emotional development [4]

Maternal schizophrenia also increases risks of developmental disorder in the child [7]:
- Increases in adjustment difficulties in newborn infants of mothers hospitalised in MCU during post-partum, and treated during pregnancy with at least one psychotropic drug, compared with those whose mothers are hospitalised in MCU during post-partum but not exposed [8].
- Higher risk factor of prematurity related to psychiatric decompensation during pregnancy [2]
- More frequent hospitalisation in neonatology for babies, whatever class of psychotropic drugs taken by the mother [9].
- Increased risk of these children developing psychotic symptoms compared to children of mothers without schizophrenia [5].

We will discuss the risk for these children of schizophrenic mother being fostered in connection with their developmental potential risks, and we will present a study that we want to achieve in the mother-child units in France and Belgium.

Post Partum Manic Decompensation in a Bipolar Woman: A Case Report in a Mother Baby Unit in Marseille (France)

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Mrs. R., aged 32 and bipolar since the age of 20 was supported with her baby aged 2–4 months in the MBU.

Well-stabilised with valproate during 3 years before pregnancy desire, her psychiatric team suspended mood stabiliser treatment because of the teratogenic risk involved. The pregnancy—closely followed at home—went well and Mrs. R delivered at full term. Valproate was not resumed post-partum as Mrs R. feared its effects on breastfeeding. After 3 weeks post partum, Mrs. R developed a delusional manic episode requiring hospitalisation in isolation for 1 month. On leaving isolation, she was supported in the MBU, first as a full-time inpatient and then in the day hospital. This joint admission allows mother-baby bonds to form and strengthen. Mrs. R could gain the self-confidence required to mother the baby.

The parental couple were able to get back together, the father being very present and sleeping in the MBU. The baby—irritable, withdrawn, and exhibiting self-stimulation—rapidly recovered normal psycho-motor development. On leaving the MBU, the relay was taken up by the area adult and child psychiatric teams, and home care was continued by appointing a specialized home career. During this hospitalisation in the PSU, Mrs. R received information on parenting and on her illness and the mood stabiliser treatments. Bipolar women have a higher risk of mood de-compensation post partum, and the effects on the baby are significant and related to prolonged separation of mother and baby during an acute episode:
- Disorders of mother-child relationship
- Delayed development of the baby

Any physician supporting a bipolar woman of childbearing age should thus:
- Inform any patients on mood stabilisers of the teratogenic risks and the need for contraception
- Encourage a contraceptive consultation with the gynaecologist and the psychiatrist if there is a desire to become pregnant
- Discuss with the patient the pros and cons of informed consent for pregnancy
- Anticipate the issue of breastfeeding
- In the case of either 'switch' or 'suspension', provide for the resumption of mood stabiliser treatment on the day of delivery.

Day Hospitalization and Full Time Hospitalisation: How to Think the Care? About the Experience of a Parent Child Unit in Marseille (France)

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The "Parent Child Unit" (UPE—Service Pr Poinso, Sainte Marguerite Universitary Hospital in Marseille) is a device with two unique features compared to other French units

1—It operates on two different ways because it is located in one place and works with a team: mothers and babies aged 0 to 18 months should be allowed in full-time week or day hospital.

2—The fathers may be present at night and/or during the day.

This dual function allows a flexible and better adaptation to the needs of mothers and babies.

Mothers hospitalized in UPE have various pathologies (schizophrenia, mood disorders, personality disorders…) associated with of the relationship disorders with the baby.

The management of patients in the unit is multidisciplinary: support, recovery and shoring works with the mothers, psychotherapeutic work, medical appointments, art therapy, workshop nursery rhyme Support the father takes the form as welcome at the UPE and medical or psychological interviews.

The dual role day hospital/full-time also allows patients to envolve them.
Spontaneous, "mother's group" where young decompensated mothers can identify with less symptomatic mothers can help each of them to find a place in the groups (different each day) and exchange despite the heterogeneity of situations and conditions about motherhood.
Continue supporting the patients after the output of the unit and the symptoms improvement is a priority (relay with other teams, home visits, health visitors, sometimes continued support psychotherapy for some patients or some dyads in the service).
Support to the UPE allows both an adaptation of the intensity of treatment of the disorder of the relationship and that require flexibility on the part of the team to accommodate the specific needs of each dyad. The capacity of the hospital requires close attention to continuity of care after the end of it. The two different methods for monitoring dyads is quite useful to provide quality acute mother-baby relationship disorders care and treatment.

Postpartum Bonding Questionnaire in Spanish Woment: Factor Structure and Associated Variables

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Aims: To examine the factor structure of the Postpartum Bonding Questionnaire (PBQ) in a sample of Spanish Postpartum women, and to associate the underlying factors with clinical and sociodemographical variables.
Methods: The sample was composed by 230 women who were attended in the BCN-Clinic Perinatal Psychiatry Program in pregnancy or postpartum for a psychiatric disorder. The women completed the PBQ and Edinburgh Postpartum Depression Scale (EPDS) in the postpartum visit. The factor structure of the PBQ was examined using confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) techniques. Associations with clinical and sociodemographical variables were analyzed using non-parametric tests.
Results: The original four-factor structure of the PBQ, as well as, the alternative Wittkoski's three-factor structure were not replicated by the CFA in this sample. Using EFA, a four-factor solution was found, but the items included in each factor were different from the original structure: bonding impairment, rejection and anger, anxiety about care, and risk of abuse. Scores on bonding impairment, rejection and anger, and anxiety about care showed significant positive correlations with EPDS scores. No differences were found in PBQ scores between psychiatric diagnosis groups. Women without stable partner scored higher on rejection and anger than women with partner (U=1763, p=.036). Higher education level was associated with bonding impairment and rejection and anger (Kruskall-Wallis Chi-square=14.46, p=.001). Financial difficulties were associated with the risk of abuse (U=4192, p=.007).
Conclusion: The Spanish PBQ is a valid and easily comprehensible instrument for bonding impairment in postpartum Spanish women. Sociodemographic variables (higher education, financial difficulties and unstable partner) and depressive symptoms were associated with bonding impairment. Future research is necessary to determine the risk factors associated to bonding impairment.

Breast-Feeding Following Emergency Peripartum Hysterectomy

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Aims: Emergency peripartum hysterectomy (EPH) is usually performed as a life-saving procedure. EPH is associated with a high incidence of maternal morbidity and mortality. A threefold increase of his incidence has been reported. Women undergoing EPH are at a higher risk of suffering PTSD following childbirth. Breast-feeding experience following EPH has not been described, since most of these women probably do not have the opportunity to even start breast-feeding
Methods: We report a case where breast-feeding was attempted after EPH. A perinatal psychiatry consultation was requested for a hospitalized 43-year-old woman who had undergone EPH. After childbirth, she had spent 6 days at ICU without her newborn. When she came to the maternity ward she explained that she felt that her baby didn't recognize her, not even her voice. She expressed a wish to breast-feed. On day 9 she was seen by a lactation specialist. A psychiatric examination was required 14 days after. The patient suffered flashbacks about her ICU stay. After that, follow-up continued over the following 6 months. Flashbacks worsened with hospital visits and several appointments were missed. A diagnosis of PTSD was made and psychoeducational information and antidepressant treatment were offered. EMDR (Eye Movement Desensitization and Reprocessing) was recommended. She expressed concern about her attachment to the baby, the consequences of early separation and her own health. She frequently expressing that breast-feeding was the most healing aspect in her recovery from the traumatic EPH. Breast-feeding continued 6 months after childbirth, the baby being weaned at 7 months.
Conclusion: Women who undergo EPH need psychological support. The option of breastfeeding should be considered even days or weeks (relactation) after the surgical intervention as it can be a healing experience for some women who are grieving the loss of their fertility. Professional specialized breast-feeding support should be offered in these cases, and the possibility of reuniting mother and infant even when the mother is in the ICU should be considered.

Maternal Depression During Pregnancy: About Distress and Coping in a 290 Belgian and French Sample

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Background and objectives: The process of the motherhood arouses numerous identical reorganizations for the woman. All these changes could reveal structuring or vulnerability aspects of her personality. Improving the screening of these dimensions seems to be an important issue of preventive perinatal practice. The objective of this study is multiple. It is a question, first of all, of estimating prevalency of the antenatal depression and the psychological distress at the pregnant women, in a comparable Belgo-French sample of pregnant women. It is also a question of examining the preferential coping strategies of these women.
Methods: 290 pregnant women, between 19 and 40 weeks of amenorrhoea, were met on the occasion of antenatal consultations: 190 in Belgium, 100 in France. Both under samples were comparable from the point of view of the age, of the marital status and of the professional activity. Moreover, these women were quite voluntary, without knowed psychopathology, and not engaged in a therapeutic process during pregnancy. The following scales were proposed: the GHQ-12 (Goldberg, 1972) for psychological distress, the EPDS (Cox, 1987) in its antenatal version for depression and the BriefCope (Carver, 1997) for coping strategies.
Results: Prevalence of antenatal depression in our sample, superior to 20 %, consistent with previous European studies. This result is also associated with a high psychological distress.
Thus, the authors will discuss the notion of active vs passive coping strategies at the depressed and not depressed pregnant women. Furthermore, they will have a close look at vulnerability vs protection functions of these adaptive mechanisms.
Conclusion: This study brings us to a disturbing observation: the pregnant women are very too numerous to be in a distress state. Today, we know well the potentially devastating implications of these difficulties both on the maternal mental health and on that of his baby. That is why it seems essential to aim at a better primary prevention of these disorders. The authors thus plead for a systematic and clinical screening of depressive risk by using EPDS.

Preventing Fetal Alcohol Syndrome: Improving Screening of Maternal Alcohol Consumption

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Objective: Alcohol consumption during pregnancy can lead to Fetal Alcohol Syndrome (FAS) or other neurodevelopmental disorders: alcohol consumption is today the first preventable cause of mental illness in the world. Thus, improving the screening and the comprehension of this consumption is a major issue of prenatal practice.
Method: 126 French pregnant women were assessed for depression (EPDS, Cox et al., 1987), anxiety (STAI-Y, Spielberger, 1983), psychological distress (GHQ-12, Goldberg, 1972) and perceived social support (SSQ6, Sarason et al., 1983). Moreover, in order to explore screening for alcohol consumption, we used a specific screening questionnaire, called T-ACE (Sokol et al., 1989), build for obstetric practice, for the first time in a French population.
Results: Tobacco consumption and substance consumption can be related to prenatal alcohol exposure. Women with a positive score at the T-ACE used more of psychoactive drugs and tobacco before pregnancy than the others. No significant difference has been found about depression, anxiety and social support. Psychopathologic history and coping strategies seem to be different.
Moreover, the rate of prenatal depression in this French sample (19,8 %) was consistent with that found in the international literature. Young, single and low educated women appeared to be more vulnerable to prenatal depression. Anxiety, psychological distress and perceived social support were related to a great extend to depression.
Conclusion: This work suggests a psychopathologic way to see alcohol consumption during pregnancy, and could help to improve screening of risky drinking in France, particularly by using French version of the T-ACE.

Postpartum Depression: Barriers to Care in Asian Indian Mothers

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Aims: Postpartum depression (PPD) is a leading cause of maternal morbidity affecting 20–65 % of postpartum mothers worldwide. Many studies have examined PPD in the United States; however few have included Asian Americans, including Asian Indians in study samples. This is concerning as although they are more likely to have access to healthcare than Caucasians, Asian Indians are less likely to seek and obtain mental health care services. The purpose of this study was to identify barriers to PPD treatment in Asian Indian mothers living in Northern California.
Methods: Using qualitative methods, we interviewed 12 mothers who self-reported as Asian Indian and who had delivered a single live infant within the past 12 months. All mothers completed demographic data and the Edinburgh Postnatal Depression Scale (EPDS) and a cut-off score of ≥10 was used to identify depressive symptoms. Mothers were interviewed using a semi-structured interview guide and qualitative analyses were performed using NViVo. Mothers were asked what they would do if they felt sad/depressed and whether they would seek help for it. Mothers were also asked what their family and friends thought about treatment for sadness/depression.
Results: Mothers were married and college-educated. Mean age was 33(3.4) years and mean EPDS score was 6.4(4.0). All mothers reported that they would seek some type of professional help if they needed it, but most expressed that they would only do so if their sadness/depression was severe and/or professional help was the last resort. Many mothers preferred to use other methods to treat sadness/depression such as seeking social support and using complementary and alternative medicine. Although many mothers reported that their family and friends would support them in receiving professional treatment for sadness/depression, they also reported that there were cultural barriers to help-seeking such as stigma.
Conclusions: Findings of this study suggest Asian Indian mothers are less likely to obtain help for mild/moderate depressive symptoms due to stigma of mental illness. Along with increasing healthcare provider awareness, it is imperative to develop culturally acceptable alternative treatments for PPD given the detrimental effects to the mother, child, and family, if PPD is left untreated.

A Longitudinal Study of Postpartum Depression: Multilevel Growth Curve Analyses of Emotion Regulation Strategies, Breastfeeding Self-Efficacy and Social Support

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Purpose: Postpartum depression (PPD) is a serious health issue affecting as many as 10–15 % of postpartum women. This longitudinal study aimed to explore how psychological variables such as cognitive emotion regulation strategies, breastfeeding self-efficacy (BSE) and dimensions of social support predicted postpartum depressive symptoms (EPDS).
Method: The data were collected with web-based survey questionnaires between May 2008 and December 2009, in a sample of 737 new mothers. The same questionnaire was surveyed at three points in time: 6 weeks, 3 months, and 6 months postpartum. Data were analyzed using multilevel modelling (level 1: time points, level 2: person).
Results: Results showed that BSE, certain cognitive emotion regulation strategies, perceived available support, and need for support predicted the rate of postpartum depressive symptoms. Only breastfeeding self-efficacy predicted change in postpartum depressive symptoms.
Conclusion: This study illustrates the importance of psychological variables with regards to postpartum depressive symptoms. Implications for preventative efforts are discussed.

Predicting Post-Natal Depression in Mothers Who Deliver Very Preterm

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Background: A high prevalence of depression has been reported in mothers following very preterm (VP,<33w) delivery.
Objective: To assess the psychological state of the mother following VP birth: during the first year of her child's life and to explore factors in the mother's history associated with depression.
Design: Cohort study of mothers enrolled in a randomised trial on prevention of postnatal depression or its pilot study.
Setting: Sole tertiary perinatal centre in Western Australia.
Participants: Two hundred and twenty five mothers of whom 9 were in the pilot study.
Outcomes: Depression, stress disorders and maternal psychological history was assessed by a clinical psychologist at structured interview using the Schedule for Affective Disorders and Schizophrenia (SADS) and DSM IV criteria at 2 weeks, 2, 6 and 12 months.
Results: Seventy-nine mothers (35 %) met criteria for a diagnosis of depression during their child's first year. Forty-two were diagnosed while their child was still in the neonatal unit. Co-morbidity with a stress disorder or adjustment disorder was common in the neonatal unit. Seventy-five mothers (33 %) had a history of depression and 33 mothers (14 %) had an antenatal episode of depression during this pregnancy. Depression was significantly more common with either a history of, or antenatal episode of, depression: 24/57 (42 %) with positive history only; 11/15 (73 %) with a/n episode only; 15/18 (83 %) with both; and 29/135 (21 %) with neither. Logistic regression showed antenatal depression, past history of depression and maternal pre-eclampsia as the only factors significantly associated with an episode of depression. Socio-demographic factors, desire for children, planned pregnancy, assisted pregnancy and a negative labour and delivery experience were not associated with an elevated risk. Fifty of the 79 mothers (63 %) who developed depression had either a history of depression or an antenatal episode and could have been identified on admission to the unit.
Conclusions: Depression is common in mothers following very preterm delivery. The majority of these mothers can be identified by taking and reviewing their clinical history.

Transition to Adoptive Parenthood: Maternal Depression in Foster Mothers

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Few studies have focused on the emotional experience of parents after adoption. Foster parents could, as biological parents, be depressed after the arrival of their child, yet highly expected. The present study examined the transition to adoptive parenthood, in particular the presence of depression symptoms in foster mothers.
Data were obtained through the Beck Depression Scale (BDI-II-R), the Saranson's questionnaire of social support (SSQ6) and in-depth interviews conducted with foster parents who identified themselves as depressed after adoption.
The sample was made up of 6 foster mothers who adopted their first child. All of them have had the experience of infertility.
All mothers reported an absence of pleasure after the arrival of their child, while most of them expected for a great happiness from the adoption. They felt an intense guilt that they couldn't share with their relatives. It was very difficult to talk about their difficulties, even sometimes with their husbands or professionals. Feelings of loneliness were also very intense. Even several years after adoption, depressive symptoms were still present among these mothers. The idealization of post-adoption could partly explain the depression symptoms, as well as a lack of social support.
Further, a lack of institutional support as soon as parents got the adoption agreement also was frequently reported. Fosters parents were centered on the success of the adoption procedures but did not anticipate what would happen after the child's arrival.

Toddlerhood Through a Depressive Lens

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This presentation is a reflection on clinical practice in working with depressed parents who find their toddler's behaviour particularly challenging. She works in a community based Perinatal and Infant Mental

Health Service (PIMH) where service delivery includes counselling and group programs. Most of the clients experience high prevalence disorders such as depression and/or anxiety.
Women usually present in the first year of their infant's life with depression or anxiety to the Community-based PIMH Service. In a subsequent pregnancy they may re-present either to (hopefully) prevent a relapse of perinatal mental illness or because they are symptomatic. Often the firstborn is a toddler and may be identified, by the mother, as having particularly challenging behaviour especially after the birth of another baby. The mother may find it very difficult to parent this toddler with positive emotions.
Toddlers have a number of developmental tasks to achieve including independence, mobility, language development, regulation of affect and aggression as well as development of self awareness (Mares et al., 2011).
While many parents struggle with this toddler life stage women who are depressed have additional challenges. Depression can result in a range of symptoms including irritability, lack of energy, adhedonia, fatigue, negative thinking, sleep difficulties, sense of worthlessness and slowed thinking. If they also have an infant to care for there may be additional complexities and expectations of the toddler.
The combination of depression and toddler life stage are explored in this presentation with reference to the literature and by reflecting on clinical experiences in an Australian PIMH Service. Three case presentations will be included to demonstrate strategies in working with such families.

Expressive Writing Intervention for Mothers Following the Birth of their Premature Baby

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The birth of a preterm infant is in most cases unexpected and can be a distressing experience for parents. Parents of premature babies report more stress, experience more adjustment difficulties and need for support during the first year after delivery compared to parents of infants born at term. It has been documented that parents may experience posttraumatic stress reactions, anxiety and depression following the premature birth of their baby, which subsequently may impact on the mother-baby-interactions, their attachment relationship and the cognitive, social and behavioural development of the baby.
In this pilot study, we offered an expressive writing intervention to women who recently had a premature baby to alleviate their psychological distress and to improve their physical health. During the expressive writing intervention, women were asked to write down their deepest thoughts and feelings about the most traumatic aspect of their experience of having a premature baby for 15 min over three consecutive days. The aims of the study were as follows: (1) To evaluate the effect of expressive writing on psychological and physical health in women who recently had a premature baby. (2) To evaluate the effect of expressive writing on the use of healthcare services and medication in this population. (3) To evaluate the acceptability and feasibility of this intervention for this population. Forty participants were randomly allocated to either the expressive writing intervention group or a wait list control group. Pre- and post questionnaires to evaluate the effectiveness of the expressive writing intervention, as well as their acceptability and feasibility were completed. The intervention took place when the baby was 3 months of corrected age. Post-measures were completed at 1 and 3 months following the intervention.
Results and their clinical implications will be discussed with regards to the implementation of this safe and cost-effective method as a preventative measure in the routine care of women who recently gave birth to a premature baby.

The Pregnancy and Alcohol Cessation Toolkit (PACT): An Educational Resource

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Alcohol consumption during pregnancy is a risk factor for poor birth outcomes, including fetal alcohol spectrum disorder, birth defects, and low birth weight. Surveys between 2000 and 2007 reported that 28–36 % of pregnant adult women drink alcohol. (Ho, R., & Jacquemard, R. (2009). Maternal alcohol use before and during pregnancy among women in Taranaki, New Zealand. The New Zealand Medical Journal, 122(1306).7) Health professionals interviewed in a New Zealand study identified a need for training to assess the risk of alcohol and other drug use in pregnancy. They also identified a paucity of accurate information about the effects of alcohol use during pregnancy. (Wouldes, T. A. (2008). New Zealand healthcare professionals knowledge, practice and opinions about alcohol, smoking and drug use during pregnancy: A qualitative research report prepared for Alcohol Healthwatch. University of Auckland). Health professionals who routinely provide healthcare to women of childbearing age are uniquely positioned to deliver important information about the health risks around the use of alcohol, tobacco and other recreational drugs.
This paper describes the development of an online interactive web based resource to improve health professional's consultation confidence and competence to address the issue of alcohol use in pregnancy.
Method: In 2010 the New Zealand Ministry of Health produced a guide for healthcare professionals engaging with women on the topic of drinking during pregnancy and the associated risk. To facilitate the capability of health professionals to have these consultations in everyday clinical practice 'The Pregnancy and Alcohol Cessation Toolkit (PACT) Educational Resource' has been developed.
Results: This web based interactive resource comprises 4 interactive modules with end of module assessments. A feature of this resource is the inclusion of a motivational interviewing skills module and video demonstrations of how these skills are used in the course of clinical consultations with pregnant women who use alcohol.
Conclusions: The uptake of this resource by health professionals, barriers to use and clinician feedback on this resource will be discussed.

Defining Psychiatric Issues in a Population of Obstetric Inpatients

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Aims: Consultation-liaison psychiatrists often manage psychiatric issues arising in the antenatal and immediate postpartum periods. To our knowledge, there are no data on psychiatric consultations for obstetric inpatients in the United States. Our study aimed to characterize the consultations performed by an obstetrics psychiatry service at Columbia University Medical Center. We hypothesized that 1) specific subtypes of psychiatric presentations would be identified, and 2) mood disorders would be prevalent, which might serve as a basis for risk stratification in the postpartum period.
Methods: A retrospective chart review of 126 consecutive consultations was conducted, analyzing psychiatric, social work, and obstetric notes.
Results: Nearly half (44 %) of consultations were requested due to past psychiatric history alone. Patients on antenatal services were more likely to be followed longitudinally (87 %), whereas postpartum patients were typically seen once (61 %). Patients with mood disorders accounted for a majority (60 %) of consultation requests. Consultations regarding patients with mood disorders were more likely to arise from the postpartum service (73 %) as compared to the antepartum service (19 %). Consultation requests for adjustment reactions to pregnancy complications or loss were also common (24 %). Other subpopulations were identified, such as patients with active substance abuse (10 %) and primary psychotic disorders (9 %). Acute presentations, such as suicidality or thoughts of harming the pregnancy, were uncommon (5 % and 2 %, respectively), but they were correlated with being seen on an urgent basis in the labor and delivery unit (r=.30, p <.001; r=.46, p<.001).
Conclusion: This study characterizes the population of obstetric inpatients evaluated by a liaison psychiatry service. Our results identify several subtypes of psychiatric presentations within this population. Mood disorders were highly prevalent, and they often were identified on the basis of past psychiatric history alone. Identification of population subtypes may lead to improved screening, assessment, and early intervention efforts in the antenatal and immediate postpartum periods.

Depression and Anxiety in Women During Pregnancy and Neonatal Outcome

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Aim: According to the World Health Organization, mental health disorders are the leading causes of disease burden in women from 15 years to 44 years [WHO, 2008]. These conditions in pregnant women may affect the offspring [Van den Bergh 2005, Grote 2010, Ertel 2010]. The aim of this study is to analyze the relation between depression and anxiety of pregnant women and neonatal outcomes including gestational age and birthweight.
Methods: Observational cohort study including 2002 women recruited before the 20th gestational week. The outcome measures were: Gestational age at delivery in completed weeks of amenorrhea and preterm delivery defined as birth before 37 completed weeks of gestation. Spontaneous preterm birth (PB) defined as either spontaneous preterm labor or preterm premature rupture of the membranes. Medically indicated preterm delivery defined as delivery that begins by induction or cesarean section. Birthweight as a continuous variable and centiles of the customized fetal weight norms for the French population [Ego 2006].
Results: From the 1719 women included in the study, 7.9 % (n=135) were classified as "anxious", 11.8 % (n=203) as "depressed", 13.2 % (n=227) as "depressed and anxious". After adjusting for potential confounders, depression combined with anxiety during pregnancy increased the risk of spontaneous PB (Odds Ratio: 2.46 [1.22–4.94]), but did not influence medically indicated PB nor birthweight.
Conclusion: In this study, comorbidity of depressive and anxiety symptoms was the worst condition during pregnancy. Further studies are needed to investigate depression and anxiety together to improve the comprehension of the biological modifications involved.

Student Midwives' Awareness of Perinatal Mental Illness in East London

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Aim: To explore student midwives awareness of perinatal mental illness with the aim of improving the care and support women receive.
Methods: Phase 1—To explore student midwives knowledge of perinatal mental illness and the actions they would take in supporting women with mental health problems.
A purposive sample of student midwives [n=15–20] will be recruited to the study. Those student midwives who are near completion [within six months] of a BSc honours degree in Midwifery [3 year and shortened programme] will be asked to participate in the study. Three to four small group discussion comprising of student midwives [n=5 each group] will be conducted. Vignette scenarios will be developed and used to stimulate discussion within the groups.
Phase 2—To examine the attitudes of midwifery educators towards teaching psychological aspects of pregnancy.
Semi-structured interviews will be conducted with eight midwife lecturers from the Department of Health Sciences, City University London. An interview schedule will be developed to explore the attitudes and experiences of educators in facilitating student learning with regard to the social, emotional and psychological aspects of pregnancy and motherhood.
Results: Results are pending and still under analysis. Preliminary findings suggest that student midwives frequently feel unconfident about responding therapeutically to and dealing clinically with women experiencing mental illness such as depression and schizophrenia.
Conclusion: The school has identified a need for more educational support in this area and this work will have a direct relevance to the teaching development and quality on perinatal mental health. The results of the findings will be used to inform curriculum development (including on-line module development) for midwifery students [undergraduate and postgraduate] therefore improving the care of women with mental health problems receive. The findings from this study will also be used for the formation of an educational web-based programme for student and qualified midwives.

A Comparative Analysis of Pregnant Icelandic Women with and Without a Mental Health Problem Regarding Social Support and Dyadic Adjustment

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Aim: To explore the effect of social support and dyadic adjustment of the wellbeing of Icelandic pregnant women with mental health problems, in comparison with a group of women who have not been diagnosed with mental health problems.
Method: The study is a comparative analysis where a group of pregnant women diagnosed with mental health problems are compared with a group without such problems. Participants from a multitude of health centers in Iceland were screened during pregnancy for depression with the Edinburgh Depression Scale (EDS) and for anxiety with the Depression Anxiety and Stress Scales (DASS). Screened positive women were offered participation in a structured interview along with a group of screened negative women. During the interview the womens' mental health was assessed using the MINI + and based on the outcomes participants were allocated to either the research group or the comparison group. All participants also answered the Dyadic Assessment Scale (DAS) and the Multidimensional Scale of Perceived Social Support (MSPSS). The DAS and MSPSS have not before been used during pregnancy in Iceland.
Result: Total of 2550 pregnant women were screened for depression and anxiety. Of them 470 women screened positive, of whom 370 came for an interview. The 210 women who were diagnosed with mental health disorders belong to the research group and 300 women belong to the comparison group.
Conclusion: During the presentation results from the data will be discussed and hat effect social support and dyadic Assessment has on the well being of women with mental health problems.

Transcranial Magnetic Stimulation for Depression During Pregnancy

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Although depression during pregnancy can negatively impact both mother and child, new data has raised concerns regarding the use of antidepressants during pregnancy. Transcranial magnetic stimulation (TMS) is a non-pharmacologic form of neuromodulation that may provide an alternative biologic treatment option for some pregnant women. We have completed an open label pilot study in which we treated 10 women with major depressive disorder (MDD) during pregnancy with low frequency, right-sided TMS. We are now enrolling women for a randomized controlled trial that uses an active sham coil. During this oral communication, TMS will be introduced to the audience and the use in psychiatric disorders will be discussed. The design and results of the pilot study will be presented as well as the results of the sham testing and design of the RCT.

Psychological Risk Factors of Postpartum Depression Among High-Risk Pregnancy Women

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Aims: The objective of this study was to examine whether high-risk pregnancy women are more ptone to postpartum depression (PPD) and whether the psychological risk factors associated with PPD symptoms among high-risk pregnancy women are different than in situation of healthy pregnancies.
Methods: 284 pregnant women were examined (N=172 healthy pregnancy group, N=112 high-risk pregnancy group). They were recruited during visits to maternity hospital or pregnancy classes. The groups were equal in terms of age, education and marital status.
The participation in the study was on an anonymous basis. The participating women completed a set of self-report questionnaires twice: in the third trimester of pregnancy (personal questionnaire developed for the purpose of the study, Beck Depression Inventory, Perceive Stress Scale, Marital Bond Scale, Social Support Questionnaire, COPE questionnaire), and in the period between weeks 4 and 12 after childbirth (Postpartum Depression Screening Scale).
Independent samples t-test has been applied to compare variables included in the study for the two examined groups.
In order to analyze the correlation between psychological risk factors and the intensity of PPD symptoms, Pearson's correlation coefficient was calculated.
Results: The hypothesis proved correct in that the intensity of PPD symptoms is significantly higher in the group of women with high-risk pregnancies (M=96,27, SD=32,5) in comparison with the group of women with healthy pregnancies (M=61,00, SD=20,01; p=0,000).
In both groups a strong correlation between the global perception of stress as well as the depression symptoms during pregnancy and the intensity of PPD symptoms was found, but his correlation is stronger in the case of women with pregnancies in the risk group (p<0.01). The differences in chosen ways of coping in both study groups of women was also found (p<0.01, p<0.001) .
Conclusion: Pregnancy is an intensely stressful experience in a woman's life, with the stress having an impact on mental state during pregnancy and after childbirth. Such complications increase in intensity especially in the case of high-risk pregnancy. The positive correlation between the level of stress and depression during pregnancy and the occurrence of PPD might be a significant risk factor in the etiology of PPD.

A Preliminary Case Series Report of a Novel Intervention for Perinatal Depression

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Aims: Perinatal depression is a major public health burden impacting both mothers and their offspring. It is associated with uniquely damaging effects on the child in the first year of life; including alterations in emotional response and subsequent behavioral and cognitive problems. To date, treatments focused on reducing maternal depressive

symptoms alone, while important, have not been sufficient to ameliorate risk to infants. The purpose of this study is to develop a novel psychotherapeutic intervention that integrates an evidence-based intervention for depression, Interpersonal Psychotherapy (IPT), with postpartum dyadic psychotherapy that focuses on emotional development of the infant in the context of the mother-infant relationship. Preliminary findings of an open trial of this novel intervention with 10 depressed pregnant women are reported.

Methods: The intervention is built upon culturally relevant, Enhanced IPT-B, a brief (9 session) form of IPT with the goal of achieving remission of the depressive episode prior to parturition. The Postpartum sessions involve both mother and infant and continue 1-year postpartum (bi-weekly then monthly). Participants were referred from an urban OB-Gyn clinic serving primarily low-income, African American women. Women between 12 and 30 weeks gestation with Edinburgh Depression Scale (EDS) scores >13 were entered into treatment. Data regarding treatment feasibility and acceptability and depression severity are available for the antenatal phase of the intervention.

Results: The average EDS score at baseline was 18.6. Only 2 out of 10 women have dropped-out of the study after initiating treatment (1 lost to follow-up postpartum, 1 moved out of state). To date, $N=6$ women have completed post-pregnancy assessments conducted at 37–39 weeks gestation. EDS scores improved for 5 out of 6 women, with 4 out of 6 no longer meeting criteria for depression prior to delivery. Attrition has been low; although, significant resources are devoted to providing multiple reminders and home visits. Ratings of client satisfaction have been positive.

Conclusions: This is a promising new intervention for perinatal depression with potential benefits for both mother and baby. Data from the postpartum follow-up assessments are forthcoming. A small RCT will be conducted after further refinements to the intervention are completed.

Implication of a Parent Child Unit's Team in a Research: Effects and Questions Raised

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The Parent–child Unit of the service of Professor Poinso, University Hospital of Marseille, France, has been involved since March 2011 in research on the semiotics of dyadic suffering, initiated by Joëlle Rochette, clinical psychologist and psychoanalyst in Lyon, France.

This research involves the use of multiple scales to take into account the factors of potential suffering from three different viewpoints: the mother, the baby and the interactions.

Maternal suffering is specifically screened using the EPDS scale (Edinburgh Postnatal Depression Scale, Cox et al. 1987)

From the infant viewpoint, assessment is via potential social withdrawal in infancy using the ADBB scale (Alarm Distress Baby Scale, Guedeney A. et al., 2001), and the quality of interactions is assessed during a game, using the PIPE scale (Fiese et al., 2001)

These three scales together form the BMI (Baby Mother Interaction) instrument created by Joëlle Rochette.

To assess suffering from both angles - baby and interaction—video recordings are made of a 'weighing' and a 'playing' sequence, then reviewed by the team and rated using the ADBB and PIPE scales.

We propose to cover the background of the Parent–child Unit team in this research.

Hence, we will look at the following aspects: the involvement and motivation of the healthcare team; the practical aspects of implementing this research, and the effects on both care providers and parents volunteering for this research.

We will also deal with the impact of such research in the overall management of dyads, the daily care in the Parent–child Unit, mutual enrichment, but also the questions raised by such research in a mother baby unit.

Addicts Parents and Their Toddlers: A Therapeutic Approach Using Video

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Objectives: We present a setting of parent-infant psychotherapy where videotaped interactions are used with drug-addicted parents and their child.

Methods: It's known that becoming parent means important changes and mental modifications. For parents suffering of drug addictions the early parenthood can be a period of vulnerability but it is also a real opportunity to change (Nair and al., 1997; Ruthman and al., 2000; Ernst, 2001; Rosenblum, 2004). In our practice, we meet frequently patients with borderline organisations and we observe that they are especially affected by parenthood mental processes during perinatal period (Le Nestour, 2007).

In this context we propose to these families a therapeutic consultation which aims:

- to limit consequences of early discontinuity in parent-infant interactions
- to qualify the baby's competencies and the parents' abilities
- to understand links between the parent's passed experiences on their relationship with their child

Results: Video appears as an important tool with these families encouraging therapeutic alliance and therapeutic process.

Conclusion: We present our technique with a case study and a video sequence

Theoretical Approaches to Maternal Infant Interaction: Which Approach Best Discriminates Between Mothers with and Without Postpartum Depression?

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Aims: Internationally, many women don't receive treatment for postpartum depression (PPD) due to lack of knowledge of depression symptoms and available health care resources. Although in the western world hospital-based perinatal nurses have extended contact with new mothers, many don't feel prepared to teach mothers about PPD. The purpose of this study is to describe the development of a theory-based intervention to improve self efficacy and rates of teaching about PPD in hospital-based perinatal nurses.
Methods: At the completion of a pre-test and based upon Self Efficacy Theory, the intervention was developed by a work group of direct care nurses and nurse leaders. The intervention consisted of a presentation of the Postpartum Depression Policy at staff meetings by each clinical manager with support by the work group. The policy provided guidance for screening, education, referral, documentation, and interdisciplinary communication procedures. In addition, PPD education by computer module was required. The clinical managers followed the staff meetings with individual reinforcement of content.
Results: Based upon self efficacy theory, the pre-test results indicated that teaching new mothers about PPD was predicted by a nurse's self efficacy related to PPD teaching (r=.86, p=.001); expectations for teaching from their supervisor (social persuasion) (r=.55, p=.001); PPD continuing education (r=.29, p=.02) (mastery); teaching experience on other topics (mastery) (r=.50, p=.001); and experience with observing other nurses teaching patients about PPD (r=.49; p=.001) (vicarious experience). The most common response indicated that nurses taught women about PPD some of the time (32 %). The intervention, also based upon self efficacy theory, addressed social persuasion with explanation of the policy by the supervisor. Mastery was included by providing continuing education on PPD by computer module. Vicarious experience was addressed with modeling by the clinical manager and the involvement of direct care nurses in the work group.
Conclusions: In order to build evidence based practice, interventions to address perinatal mental health should be based upon theory, describe the interventionist, the participants, the content of the intervention, and how the intervention was delivered. This information provides a critical context in which to evaluate study outcomes.

A Mother Baby Unit at a University Hospital in Lille (France): Bringing Forward the Intensive Perinatal and Postpartum Psychiatric Cares

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Since 1989 the Department of Psychiatry in the University Hospital in Lille (North of France) has been developing specific cares for new mothers with postpartum psychiatric symptoms. Although in the beginning no specific place was dedicated to this kind of activity, the need for joint hospitalisation of the mother and the baby lead to the implementation of a Mother Baby Unit (MBU) in the Psychiatric Department.
The present MBU provide accommodation for 4 mothers and their babies at the same time, and is designed as a place for giving care for the mothers and babies, caregiving, with the most accurate evaluation and observation of the mother-baby relationship. This is true for mothers with psychiatric postpartum disorders or at risk of severe disturbances in the relationship with the baby, but also since 2010 for mothers with addictive disorders, as the original design of this MBU makes the unit a part of the three departments of adult psychiatry, infant psychiatry and addictology.
This MBU is thought as a part of a perinatal psychiatric department which includes outpatients cares and liaison psychiatry in the maternity ward. Being the only one with an MBU in a relatively large area, this department is by itself a part of a local perinatal network and is involved with other ones working through the best part of a geographic area that encompass more than 4 million people. Thus this MBU represents for this area a place providing among the most intensive care for treating severe postpartum disorders and dysfunctional relationship related to these disorders.
In the end of the year 2012 a new MBU with accommodation for 7 mothers and babies dyads (4 full time hospitalisation, 3 day hospitalisation) should open on a new site.

Substance Use During Pregnancy and Associated Factors

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Substance use in pregnancy is an increasingly common problem and has become an important public health issue. Women who use substances during pregnancy are an elusive population who often remain unidentified to practitioners and researchers and hence have not been well studied. In general, the prevalence of licit and illicit substances use during pregnancy is estimated by extrapolating data from epidemiological studies conducted in the general population. It is estimated that 20–30 % of pregnant women use tobacco, 15 % use alcohol, 3–10 % use cannabis and 0.5–3 % use cocaine (Lamy & Thibaut, 2010).
Objectives: To study the prevalence and associated factors for substance use during pregnancy in a representative sample of general population.
Methods: Women (2–3 days post-partum) were recruited in seven acute care teaching hospitals in Spain. All participants were Spanish, not under psychiatric care during pregnancy, and able to understand and answer the clinical questionnaire. A sample of 1804 was collected. Sociodemographic, psychosocial and obstetric variables, personal and family psychiatric history, personality traits (STAI-T, EPQ, COPE), social support during pregnancy (DUKE-UNK) and mothers reported substance use during pregnancy and dose in last month were evaluated at 2–3 days.
Results: Fifty percent of women reported substance use during pregnancy: 42 % caffeine, 21.6 % tobacco, 8 % alcohol and 0.6 % cannabis. Lower education (p=0.002), multiparity (p=0.001), medical problems during pregnancy (p<0.000) were factors associated with substance consumption. Psychoticism (p<0.001), and a trend of high neuroticism (p=0.054), extroversion (p=0.034) score traits and to cope emotional

problems using drugs (p=0.01) were found in women who consumed drugs during pregnancy.
Conclusions: In our sample the prevalence of substance use found was similar to previous literature data. Substance use during pregnancy was associated to socio-demographic characteristics, health problems and a pattern of personality traits and coping strategies. The crossectional design of the study did not allow us to know the direction of the association.

A Service for Perinatal Care at Le Vésinet Hospital (France)

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The perinatal department within the Vesinet Hospital holds two units of 20 beds each dedicated to pregnant women and to mothers with infant for an average stay of 60 days. Both units treat diseases in which somatic, mental and social causes are all intertwined. Psychiatric treatment is required for approximately a third of mothers.
Indications of hospitalization are:

- Obstetric pathology for two third of cases, somatic pathology or handicap situations for 1/3 of cases, fetus or infant pathology, mental illness, addictions, discovery of HIV status.
- Environmental factors: migration, illegal status, homelessness, emotional or social isolation, attachment disorders, unwanted or denied pregnancies, women in prison.
- Assessment of the mother-infant bond requested by maternity hospitals, social services, judicial and Social Welfare for children.
- Particular cases: birth in secret, adoption plan, teenage pregnancies.

Two units in one place make it special in terms of multiple and global care: they range from medical to psychological, including social care and child care as well.
Thereby the medical team gathers obstetricians, pediatricians, psychiatrists, general practitioners, midwives day and night, physiotherapists, nurses, childcare assistants, psychologists, social workers, allowing a multidisciplinary work.
Our various means of doing are:

- Medical treatment, chemotherapy
- Treatments for addictions and substitution plans
- Preparation for birth
- Guidance for parents
- Haptonomy
- Care and direct observation of the baby according to Loczy and E. Bick
- Video recordings of mothers-infant interactions to be screened and analyzed by the team
- Massage and activities by volunteers
- Multidisciplinary synthesis every week.

Our aim is obviously therapeutic, in tempting to prevent transgenerational compulsion to repeat and in tempting to protect mother-infant bonds from emotional and psychosocial vulnerabilities. These factors are inducing pathologies that can be decreased if we give support to the mother, the child, and the mother-enfant bonds. Often we witness a spectacular reversal of symptoms in the child when perinatal cares are given at an early stage.

Guided Psycho-Education Support (GPS) for Partners of Women Admitted to an Inpatient Mother and Baby Unit (MBU)

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Aim: Despite wanting support, fathers, often find it difficult to attend services which are badged as ‘counselling’ or ‘support’ (Letourneau 2011). Engaging fathers is more likely when they receive a personal invitation, are given practical advice rather than focusing on emotional issues, when sessions are scheduled to occur several weeks into treatment and offered out of hours (Mathey, 2009). The GPS project was developed in direct response to an audit of the needs of the partners of mothers admitted to the Birmingham unit. The evaluation identified that two thirds of partners wished to have more information about the service and their partner’s condition, it also identified that many partners experienced a range of conflicting emotions which they found it hard to find an outlet for.
Method: The programme is based on the provision of a service leaflet about the MBU supplemented by condition/symptom based psychoeducative leaflets provided in the context of a confidential, supportive one to one session delivered by a male member of the nursing team. The service orientation leaflet covers the typical emotional reactions of partners, suggestions for how to support their partner and baby, the process of admission, assessment and treatment and suggestions for where to seek specific support (e.g. financial, childcare). The condition/symptom based leaflets cover the range of typical perinatal presentations (e.g. anxiety, postnatal depression, postpartum psychosis, schizophrenia, bipolar disorder and childbirth, worrying intrusive thoughts, mother to infant bonding problems, birth trauma, self-esteem and sleep problems).
Sessions are designed to be informal and interactive. Each session is guided initially by the generic leaflet followed by relevant condition specific leaflets. Within this structure there is scope for the facilitator to tailor the session to the individual father’s emotional and/or informational needs. Multiple sessions can be arranged if necessary to reinforce the information shared or to follow up progress.
Results: Partners are currently being recruited and the service is currently being evaluated. Preliminary data indicates that mothers have encouraged their partners to attend. The service has been positively received by fathers who have described it as ‘informative’, ‘helpful’, and ‘reassuring about future.’

Women’s Work Status, Sleep Habits and Mood During Pregnancy: Preliminary Results

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Objective: Lower income and educational levels, as well as low social support and higher life stress, are associated with depressed mood during pregnancy. Fewer studies have examined links between employment status and antenatal depression. Our objective was to examine the relationship of work status, sleep, and mood during the 3rd trimester of pregnancy.
Methods: As part of an ongoing study of perinatal sleep and mood, we studied 17 women (ages 23–37, mean + SD=29.9+5.6 years) with a history of major depressive disorder or bipolar disorder (but not in a current mood episode) at 33 weeks of pregnancy. Sleep was measured with wrist actigraphy and daily sleep diaries for 1 week. Actigraphic total sleep time (TST) and sleep efficiency (SLEF) were estimated using Action-W software (AMI, NY). Women also were interviewed about their work status and were classified as full-time workers (worked a full day for pay >4 days/week) or part-time/non-workers. To assess mood, we modified the Inventory of Depressive Symptomatology-Self Report-30 (IDS-SR), excluding the 8 items about sleep, appetite, and weight loss/gain. We used independent sample T-tests to compare the sleep measures and modified IDS mood scores between full-time workers and part-time/non-workers.
Results: Our data suggest that women working in full-time jobs may have less depressive symptoms at 33 weeks of pregnancy than their part-time/non-working counterparts. This trend occurs in spite of the fact that working women may be getting less total sleep and lower quality sleep, factors typically associated with higher depressive symptoms. Our future analyses will examine other factors, such as social support, socioeconomic status and job satisfaction using a larger sample.

Results of One Year Out-Reaching Work in a Mother Baby Unit in Ghent (Flanders Belgium)

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Already 11 years we run a mother and baby in-patient in a psychiatric Sint Camillus Belgium.
Of course we were satisfied with the possibility to help some mothers yet frustrated not to be able to help others as they were scared off by the label of needing a hospitalization in a psychiatric ward; also we faced the Belgian laws not so child friendly until recent: hospitalization of children in hospitals for adults was forbidden but of all we found it medically and psychologically not necessary to have the mother and child hospitalized but there was no other possibility for good care.
So we have negotiated with the government not to get enormous amount of beds in the mother and child unit but mostly be able to work very flexible: if really needed we hospitalize mother and baby; eventually change to day-hosptial and work as much as possible in out-reaching care.
The results of this vision and the way it changed our work will be presented. We can give an overview of the results starting from 1/9/2011 until 31/8/2012.

Integrating PMD Education Into All Aspects of the Childbearing Experience-1US Hospital Example

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Perinatal Mood and Anxiety Disorders screening and education should be integrated into all aspects of the women and family's childbearing experience. This communication will present 2 US hospital's programs and experience with screening and education at various points along the way—Prenatal visits, Prenatal classes, Hospital stay, Postnatal Visits, Home Visits, Support Groups, Referrals, Treatment Evaluation, and Follow-Up Phone Calls.

Perinatal Networking for Prevention and Care for High Risk Pregnancies

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Purpose: The public hospital in Meaux is the only hospital in the Seine et Marne department with a level 3 maternity unit.
Many women with pathological pregnancies, premature babies or newborns in neonatal intensive care unit need preventive and curative psychological support for themselves, their families and to encourage the good developpement of the baby.
As the psychiatrists working in the adult psychiatric unit, we propose to present our current perinatal care network and to think about the different changes that may improve it.
Method: Our current perinatal care network: in the Public Hospital of Meaux
Perinatal care provided to pregnant women and mothers with perinatal psychiatric disorders:

- PMI (child and mother protection)(doctors, midwises, paediatric nurses, psychologists, social workers…)
- Le "Hameau" (kind of "maison verte" by Françoise Dolto)
- Home services (daily help, family workers…)
- Private doctors *Curators, Tutors*
- Psychologists (in private or at the hospital)
- Perinatal psychiatric clinical assessment (evaluation and orientation for children and their families)
- Psychiatry emergency
- HADM (maternity home hospitalization (3 days) for mothers and babies after discharge from maternity unit)
- HADP
- Maternity hospitalization*Level 3 maternity unit*
- Baby-mother hospitalization in the neonatal unit (8 cots, 6 rooms for mother and baby)
- Hospitalization in a psychiatric mother-and-baby unit (but outside the department, far from their family)
- Hospitalization of the mother in the psychiatric unit (without her baby) outpatients (48 beds), 2 psychologists—inpatient (82 beds)

Conclusion: Points to be improved: More and better communication between the different care providers.
_Inpatient mother-infant psychiatric unit would be appreciate _(such a service does not exist in Seine et Marne department).

Babies of Schizophrenic Mothers: What are the Risks ? Interest of Early Care in Mother Baby Unit

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Babies of schizophrenic mothers: What are the risks?
The importance of early care in mother/baby units
Objective: The aim of this research is therefore to study the risk run by offspring of schizophrenic mothers in terms of the psychiatric prognosis and to evaluate the effecience of early care in the mother/baby unit on this evolution.
Method: First, the authors examine the scientific literature on the subject, reviewing the major longitudinal studies of children with schizophrenic mothers between 1980 and 2011 in order to evaluate the prognosis of these children.
They then present a retrospective study undertaken on babies of schizophrenic mothers hospitalized in the mother/baby unit of the Théophile Roussel Hospital (in Dr. Chardeau's department) between 1995 and 2010. Eighty files have been studied, making it possible to reexamine the cases of fifteen children.
Results: The final part of this research consists in a comparative analysis of these results, showing a better prognosis for children of schizophrenic mothers whose care begins early in the mother/baby unit. We discuss the limits of our study and the perspectives for research indicated by our results.
Conclusion: Our review of the literature has confirmed that babies born to schizophrenic mothers run a risk of developing psychiatric illnesses during child- or adulthood greatly superior to those of the general population. Furthermore, our retrospective study tends to show—although these results are descriptive—that early care of these babies in a mother/baby unit can possibly improve their prognosis and better preserve their relationship with the mother, compared with the results of studies on what happens to babies of schizophrenic mothers who do not have the advantage of this care. Given what is at stake in terms of public health for these children's future, it seems necessary to confirm these results through broader research and by comparisons between two groups of children of schizophrenic mothers, one benefiting from hospitalisation in a mother/baby unit and the other receiving other types of care.

Influence of Prenatal Hospitalization on Parental Stressful Experience in the Case of a Premature Birth

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Objective: To investigate the influence of prenatal hospitalization before a premature birth, on the parental perception of environmental stress, parental symptoms of post-traumatic and quality of parent-infant interaction during the hospitalization in neonatology.
Methods: Population: 51 preterm infants born <33 weeks gestational age (g.a.), and 25 full term infants control. Environmental stress assessed with the Parental Stressor Scale: Neonatal Intensive Care Unit (PSS :NICU, Miles & Funk 1993);parental symptoms of post-traumatic stress evaluated with the Perinatal PTSD Questionnaire (PPQ, DeMeir 1996). Four groups of parents were compared: controls, premature without prenatal hospitalization, premature with a short (i.e. <8 days) prenatal hospitalization and premature with a long (i.e. ≥8 days) prenatal hospitalization.
Results: When prenatal hospitalization of the mother occurred, both mothers and fathers acknowledged increased concerns and stress induced by the environmental factors during the infant's hospitalization. Furthermore, mothers from the group with a short prenatal hospitalization presented significantly more symptoms of post-traumatic stress compared with mothers with long prenatal hospitalization as well as mothers of preterm infants without prenatal hospitalization. Parents presenting more symptoms of post-traumatic stress describe significantly a more difficult interaction with their infant in neonatology.
Conclusion: This study highlights the necessity to deliver special care and attention to women hospitalized shortly (<8 days) prior to the delivery of their premature baby. This group is at high risk of presenting post-traumatic stress symptoms which could have a negative impact on the quality of parent-infant interactions.

The Investigating Risk Factors for Postpartum Depression in Seasonal Farm Worker Women in Sanlıurfa (Turkey)

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Aims: The aim of this study was two fold. Firstly this study aimed at determining cutt off score of EPDS for seasonal farm worker women. Secondly, this study focused on detecting risk factors for postpartum depression at seasonal farm workers in Sanlıurfa.
Method: The sample of this study included 167 women in postpartum period. Participants were administered a sociodemographic questionnaire, Depression Anxiety Stress Scale (DASS) and Edinburgh Postpartum Depression Scale (EPDS) through lay health workers. Sociodemographic forms included questions about age, family type, living in polygamous family, marriage age, age of delivery, educational level of herself, family income, history of physical illness in women, history of abortion, language spoken at home, planned pregnancy, taking help from husband during caregiving baby. Sensitivities and specificities were calculated using the recommended cut-off scores and ROC curve analyses were performed to determine optimal sensitivity and specificity. Logistic regression analysis were used to determine risk factors for postpartum depression. All data were analyzed using SPSS 11.5.
Results: A cutt-off point for the EPDS was equal to higher 18.5, corresponding to sensitivity of 88.1 % and specifity of %45.8. Results of logistic regressions indicated that planned pregnancy, taking help from husband during caregiving baby, and having social support from supportive friends predicted postpartum depression.
Conclusion: To the best of our knowledge, this is first follow-up study to investigate the risks of postpartum depression in seasonal

farmworker using lay health worker. As such, these findings serve as an important guide to further studies of postpartum depression.

Review of the Correlation Between Sexuality, Depression and Fear of Giving Birth During Pregnancy

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Aims: The objective of this study is to examine the correlation between sexuality, depression and fear of giving birth in pregnant women of 3rd trimester at Vali Saim Çopur No: 03 Family Health Center, and No: 25 Family Health Center.
Method: This study was a descriptive, cross-sectional study planned to examine the correlation between sexuality, depression and fear of child birth in pregnant women of 3rd trimester at "Antalya No: 03 and 25 Family Health Centers". The pregnant women were applied a questionnaire consisting of 5 questions regarding their identifying features, 10 questions regarding their obstetrical attributes and 10 questions regarding fear of child birth; Wijma Delivery Expectancy/Experience Scale A-version (W-DEQ-A), Arizona Sexual Experiences Scale (ASES), and Beck Depression Scale (BDS).
Results: When the obstetric attributes of the women were examined, 59.7 % of them experienced their first pregnancy between the ages of 19 and 24, and the average number of pregnancy was 1.69±.72. 90.3 % of the women got pregnant intentionally, and 86.1 % had no health problems. The average score for W-DEQ-A scale (women with severe fear of child birth) was 59.25±4.3, the average score for ASES was 12.63±4.37, and the average score for BDS was 30.77±7.99. A significant correlation was found between the W-DEQ_A scale and BDS (r=0. 395, p>0.01) in pregnants. There was a significant correlation between the W-DEQ-A version and ASES data (r=0. 434, p>0.01) in pregnants.
Conclusion: In the study, it was found that the depression scores as well as sexual problems and fear of delivery among the pregnant women in their last trimester were high.

Attachment Style in Mothers and Fathers and Post-Partum Depression

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Aims: The study aimed to investigate the relationship between adult attachment style (AS) in mothers and fathers and post-partum depression (PPD).
Methods: Study sample was made of 31 women (mean age 32; SD= 5.41 yrs) and relative partners. Relationship Questionnaire (RQ) and Edimburgh Postnatal Depression Scale (EPSD) were administered to women within 48 h from delivery. Contemporarily RQ was administered to partners. EPSD was then administered to women 4 months later. Statistical analysis was performed using two-way repeated measures ANOVA using women ASs as independent variables as reported by RQ (insecure vs secure) and EPDS scores in both times as dependent variable. A two channels ANOVA with repeated measures using partners ASs as reported by RQ (secure and insecure) as independent variable and women EPSD 48 h and 4 months scores as dependent variable was performed
Results: There was a significant effect of strength of insecure attachment (F (2.28)=6.94). Post-hoc comparisons using the Fisher LSD test revealed that the difference between women with 48 h secure attachment vs women with 48 h insecure attachment was significant (M=7.59 vs M= 12.75; p<.05); the difference between women with 4 months secure attachment vs women with 4 months insecure attachment was highly significant (M=6.00 vs M=12.75; p<.001). In other words secure attachment seems to be protective compared to insecure attachment and this effect increases with time.
In the partner sample the influence on EPSD of the time and group variables were not significant. Post-hoc comparisons using LSD test revealed that the differences between secure (p=.02) and preoccupied (p=.02) attachment vs dismissing were significant.
Conclusion: This study confirms that mother insecure attachment is strongly correlated with the onset of PPD. Partner AS was not a risk factor for PPD considering either the whole insecure styles or each single insecure attachment style. On the other hand, the post hoc analysis showed a significant protective effect of secure and preoccupied AS over dismissing attachment in the development of 4 months PPD.
In conclusion, this study suggests that furher research based on AS may be a fruitful approach to understanding the developmental pathways leading to PPD.

A Longitudinal Study of Effect of Postnatal Depression on Maternal Bonding and Attitudes Towards Pregnancy

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Background: Postnatal depression and bonding failure after childbirth are major mental health issues but there have been few studies about these relationships in both research and clinical settings.
Methods: Ninety nine women took part in longitudinal study of maternal mental health during late pregnancy and after delivery (5 days and 1 month postpartum) using the Maternity Blues Questionnaire (MBQ; Stein 1980), Edinburgh Postnatal Depression Scale (EPDS; Cox et al. 1987), Mother-Infant Bonding Questionnaire (MIBQ; Kumar et al.) and the Hospital Anxiety and Depression Scale (HADS; Zigmond and Snaith 1983). We first calculated the mean s of all variables, and then we subsequently created a path model to clarify the temporal relationships between variables.
Results: Anxiety during pregnancy predicted postnatal depression and bonding failure whereas negative attitudes towards pregnancy predicted bonding failure. The effect of negative attitudes towards pregnancy on postnatal depression was possibly mediated by bonding failure.
Conclusions: Postnatal depression and bonding failure are correlated with different risk factors and run rather independently over the course of the puerperium. Postnatal depression may be predicted by bonding failure.

Type of Delivery, PTSD Symptoms and Maternal Mood 3 Months After Birth: A Prospective Study

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Data from animal models has shown that peripartum oxytocinergic manipulation can have long lasting effects on maternal and newborn behavior. The objective of this study is to evaluate the effect oxitocinergic intrapartum manipulation can have on maternal mood during puerperium.
Matherial and Methods: 110 healthy women were recruited before giving birth in the deliverty room and were included into three different groups based on birth outocome: 1) Spontaneous vaginal birth with no sinthetic oxytocin use before delivery (VB) (n=25) 2)planned caesarean with no prodromal labour-therefore no endogenous oxytocin release (C) (n=32) 3) vaginal deliveries where synthetic oxytocin known as Pitocin was used to induce or augmentate labor contractions (VOXT) (n=53). All had healthy fullterm newborns. Three months later mothers were contacted by telephone (n=84, 26 missing cases) and administered EPDS and Postpartum PTSD Questionnaire and data about breastfeeding was collected. Results: Breastfeeding at 3 months: 89,4 % VB, 78,5 % C 89,1 % VOX EPDS+=15,7 % VB 17,8 % C 5,4 % VOX; PTSD: 0%VB 7,1 % C 0%VOX
Conclusion: Type of delivery did not increase depressive symtomatology. Planned cesarean group had a higher prevalence of PTSD symptoms at 3 months postpartum.

Maternal Brain During Chidbirth: A Proposed Neurobiological Model and Possible Psychopathological Consecuences of its Disruption

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Introduction: As the medicalisation of childbirth continues rising and caesarean delivery becomes the most common operation performed worldwide, an increasing rate of women become mothers without going through the physiological neurohormonal events of parturition, others are also exposed to a disturbed neurohormonal scenario, such as induced labour. What are the consequences of this deprivation or disruption? Little attention has been paid to the possible short or long term neurobehavioral or psychiatric consequences.
Aim: To present a theoretical model describing the neuropsychobiology of childbirth to elucidate or discuss possible mechanisms of long term neuropsychiatric sequelae in the mother.
Material and Methods: literature review of the neurohormones involved in childbirth as well as the psychology of normal childbirth; considering a holistic integrative understanding of the personal, cultural, mystical and attachment dimensions of childbirth.
Results: There will be different psychopathological pathways, discussed here at theoretical level, depending on the consequences of childbirth neurohormonal disruption in the maternal brain (due to planned caesarean, induced labour, immediate mother-newborn separation and/or artificial infant feeding).

Parents-Baby Unit in the University Hospital of Tivoli at La Louvière (Belgium)

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Since 2008, the Parents-Baby Unit has been part of a pediatric unit within a general hospital located at the heart of the province of Hainaut (Belgium); an especially vulnerable region in the psychosocial and economic spheres. As a member of the "early childhood" network, the Unit has engaged various stakeholders: pediatricians, ONE's nurses, maternity wards, neonatal services, social workers, early support services, legal services Our team is composed by a pediatrician, a child psychiatrist, two psychologists, a physiotherapist, a social worker, an educator and pediatric nurses. Art therapists in training take part in the families' hospitalization overseas on a regular basis. At the therapeutic level, we have developed our work on an in-patient and out-patient basis. Both settings are intended for 0 to 36 months old babies with relational dysfunctions and their mother and/or father.
The out-patient basis provides the opportunity for any parent seeking psychotherapeutic support to consult a therapist without resorting to hospitalization. Such consultation can be a first step toward further in-patient care in the Unit, the latter being offered at the end of the former. The pathology of the parents-child relationship provides the key criterion for accessing in-patient care. Our structure allows for four families to be simultaneously hosted for several weeks. By offering an "environmental holding" particular to each family, the therapeutic work aims to create, develop and stimulate relations with the child that would be structuring and more calibrated. This work is articulated around differentiated axis: regular meetings with parents to work on the fantasmatic sphere, joint meetings where early interactions are addressed, a day-to-day educational support, "Bobath" physiotherapy interventions, therapeutic workshops (massage, music…), pediatric follow-up, social support and psychiatric consultation. In an analytical orientation, we also resort to devices such as video, "Bayley" and "Brazelton", as well as to baby observation and pictures.

Verbal memory in postpartum psychosis

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Introduction: Verbal memory has been found to be impaired in people at risk of psychoses unrelated to childbirth. However, little research has been done in women at risk of postpartum psychosis (women with bipolar or schizoaffective disorder or a personal or family history of postpartum psychosis). This study investigated verbal memory in women at risk of postpartum psychosis compared to a healthy control group.
Method: 23 women at-risk of postpartum psychosis and 19 healthy women were assessed using a verbal memory task consisting of an

encoding and a retrieval stage. Women in the at risk group had: a diagnosis of bipolar (N=9), or schizoaffective disorder (N=2), a family history (N=1) or a personal history of postpartum psychosis (N=11). During the task, participants were presented with a list of 70 words and asked to identify whether the words represented 'man-made' or 'natural' objects. After one and half hours participants had to decide, from a second list containing the 70 old and 35 new distractor words, whether a word was previously presented or not.
Results: There was no significant group difference in the percentage of correctly encoded words (Mean=64, SD=4.8; Mean=62.7, SD=4.2 for controls and at-risk, respectively; U=167.5, N1=19, N2=23, p=0.195). There was a significant difference between groups in the d prime (Mean=2.4, SD=0.8; Mean=1.8, SD=0.6, respectively; t=2.49, df=40, p=0.017).
Discussion: Our results suggest that women at risk of postpartum psychosis show verbal memory impairments similar to those of individuals at risk of other psychoses unrelated to childbirth.

High impact Low Stigma—A Story of Perinatal/Infant Mental Health and Primary Care Partnership

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Aims: To develop a system of care within a local community (the Glen Eira municipality of Melbourne) that provides perinatal and infant mental health services at primary, secondary and tertiary level for infants (under 36 months) and parents when there are concerns about mental health and emotional wellbeing:
Objectives: Primary care workforce development (Improving perinatal and infant nurses' capacity to identify and address mental health difficulties—especially in infants early in life and Enhancing nurses' capacity to reflect and improve on their clinical practice).
Early intervention (Mobilising necessary community resources when a child/parent is at risk of developing more complex mental health problems, Developing more streamlined referral pathways and Providing services within the client's own environment at the time concerns are identified).
Access to direct specialist mental health services (Improving access to specialist perinatal mental health services to infants and their parents
Methods: Led by infant mental health practitioners, partnership between the infant mental health service and the local primary care perinatal nursing services began 10 years ago. Initial case consultation provided to nurses seeing families has expanded to encompass: professional development, regular case consultation with the perinatal/infant nurses and specialist perinatal/infant nurses, direct clinical consultation and assessment, ongoing individual/parent infant therapy, groupwork, more integrated service system The work is underpinned by a care team approach that emphasizes early intervention and coordination.
Results: Data is currently being collated that measures changes in perinatal mental health confidence and competence of primary care staff .
Clinical case studies will also be presented to demonstrate service system change and improved service response.
Conclusion: Response to the needs of infants, specifically where there is perinatal mental health and/or other health disturbance in parents, improves with specialist mental health consultation, referral and systemic response. Features that have helped partnership development, integration and effective referral pathways will be highlighted.

A Mother and Baby Unit in Limoges (France)

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Located in a specific psychiatric department in Esquirol Hospital center, Limoges, France, and open since 1995, the unit has received more than 1,000 women.
Our staff includes 2 psychiatrists, 1 manager, 1 psychologist, 1 midwife, 1 paediatrician, 2 psychomotor therapists, 13 nurses, 3 paediatric-nurses and 1 house cleaner.
We provide joint hospitalisation for 4 mothers and babies (up to 5 babies under 12 months) and 2 pregnants women. We also receive mothers and infants (less than 30 months) for sequential care every week. During the day fathers and families are welcome to the unit .
Women are hospitalized for psychiatric diseases (depression, psychosis, anxiety, phobia). They need chemical treatment, psychological therapy and support in their relationship with the baby. Every baby has specific care. Mostly, food, sleep and psychomotor disorders are infant developmental disorders, linked to mothers diseases.
We cooperate with 8 maternity (about 7500 childbirth/year) to help detecting early psychological symptoms worsen during pregnancy and postpartum period. Moreover, 2 nurses can visit mothers and babies at home or at the place of life babies. A real care network was formed.
The unit is the resource center for identification and treatment of mental disorders in perinatal care. All the year, in Limousin region, numerous meetings and trainings with perinatality staffs, help us take the best possible care of mothers and babies in order to improve woman's mental health and baby's becoming.

Why Don't Mothers Go for Help? Barriers to Treatment for Postnatally Depressed Mothers

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Aims: Research has shown that a significant proportion of depressed mothers decline professional treatment (Dennis & Chung-Lee, 2006). Early detection programs for postnatal depression are designed to overcome many of the common help-seeking barriers. We conducted a two-year follow-up of mothers from the Australian Capital Territory who participated in the *beyondblue* PND program to examine long-term depressive symptoms, treatment uptake and barriers to care.
Methods: 984 women participated in the original program and were assessed for symptoms of depression in pregnancy and at 6–8 weeks

postpartum. At 2 years postpartum, all participants who were screened as 'probably depressed' (EPDS>12) and a random sample of an equivalent number of mothers who screened 'not depressed' were invited to participate.
Results: 199 women participated in the follow-up study. Mothers originally detected as probably depressed (n=98) fared significantly worse than 'screened negative' mothers (n=101) both in terms of their higher mean depression scores (EPDS: Ms=11.0 vs. 6.4) and greater proportions categorised as probably depressed at two-years postpartum (40 % vs. 11 % respectively, p<.001, phi=.33). Sixty mothers reported a range of system and practical obstacles to treatment. Two-thirds of these women identified their own reluctance as the major help-seeking barrier above practical or systems difficulties. Depressed mothers prefer to use their own resources and are concerned about the stigma associated with professional help (table).

Table: Reasons for declining help* **Responses % (*N*=60)**
Preferred to sort things out myself 43.3
Stigma of having problems 25.0
Didn't get around to it 8.3
Normalised symptoms 6.7
Unaware of services 5.0
Concern about side effects 5.0
Aware of service but couldn't access 3.3
Practical difficulties—no childcare 3.3
TOTAL _100%_

Conclusions: Some women may find it helpful to use their own resources, but for others it may indicate a reluctance to seek professional help. Programs could investigate more effective ways to address internal restraints on accepting help in order to improve treatment uptake rates for high risk women.

Screening for Posttraumatic Symptoms in an Australian Perinatal Mental Health Consultation Service

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Aims: Posttraumatic stress disorder (PTSD) in mothers is a serious anxiety disorder that is often undetected and misdiagnosed. The majority of research has focused on community samples of mothers. This study sought to investigate the feasibility of routine screening for PTSD symptoms in a clinical population of mothers. The study also investigated the degree to which symptoms of trauma and depression occur together.
Methods: All mothers who attended a perinatal mental health consultation service in the Australian Capital Territory from July to December 2011 were screened for signs and symptoms using the brief, 7-item Breslau PTSD Checklist (Breslau et al. 1999). Mothers also completed the Edinburgh Postnatal Depression Scale (EPDS) and participated in a clinical interview. A retrospective chart audit was conducted to obtain data on demographic and diagnostic factors.
Results: Sixty-one mothers who attended their initial appointment were screened with the PTSD checklist and the EPDS. Fifty-nine percent (36/61) scored positive for possible PTSD symptoms. Moreover, 92 % of these mothers also scored above the EPDS cut-off of 13 or more. The correlation between the PTSD checklist and the EPDS was 0.72. Variables associated with elevated PTSD symptom levels will be reported.
Conclusions: The high percentage of mothers with elevated PTSD symptoms and co-morbid depression is of serious clinical concern. We found it is feasible to routinely screen high risk mothers for symptoms of PTSD using a brief checklist.

Construction of the Dyadic Space: From the Perinatal Ritual to a Semiology of Early Psychopathologies

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The immediate postpartum period contains the basics of the anthropological situation, for the baby as well as for the mother and the father and the socius. Psychic life first matrix subject to "the basic dyadic space" comes from the complex alchemy between the range of maternal investment and disposition and the baby's original control abilities, without ignoring the play within a play which surrounds mothering. From an extended study in the perinatal field, this research takes an interest, with a double methodology of qualitative study (chapter 1) and quantitative "equipped" one (chapter 2 and 3), in the construction of a dyadic space, essential for the baby's development and for the maternal investment, to this construction ups and downs, for regulatory functions of these rituals (relayed by current perinatal cares) which gives a scansion to childbirth work. Dyadic communication between mother and baby, with a climax around 2 months old with the first protoconversations, is studied as an asymmetrical transmodal complex co-genesis by both psychoanalysis and attachment theory, by developmental approaches and neurosciences. This unique and original space, which is renewed after every birth, is woven from "the forming of maternal investment" composed from psychic life vectors and their combination which provides enough energy for the mothering situation. From the three major schools of conceptual thoughts and from therapeutic treatments of early relationship disorder, we identify the forming "in transformation", the "transmission" one and the forming "in seduction". These breakthroughs have a triple purpose: to built a new reading of primary intersubjectivity, the building of baby's self-awareness, normal and pathological mechanism of identification and empathy, to support the principle of cares and the edification of a dyadic semiology of the early psychopathology and to lead to a model that will include the aspect of the "early" and its symbolism form in adult therapy and the institutional support of fragile or borderline population

Evaluation of the Suffering of the Mother Baby Dyad First Year Postpartum with the BMI Scale (Baby/Mother/Interaction) (Video of PIPE Scale)

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We propose to introduce a rating scale of parent–child interactions: Pediatric Infant Parent Exam. This scale was developed by Fiese et al.

(2001). We used this scale in a research protocol involving the broader assessment of the development of pain on a course of 1 year and in three areas: Baby, Mother and Interaction (BMI). This research is still continuing in the Parent–child Unit of the service of Professor Poinso, University Hospital of Marseille, France. This research is multicentric: it is also conducted in the nursery of Chalon-sur-Saone and will start in Haiti. Signs of pain in infants are detected using the ADBB: Alarm Distress Baby (Guedeney A. et al., 2001). For the mother, using the EPDS: Edinburgh Postnatal Depression Scale (Cox et al. 1987). BMI Tool was designed by J. Rochette and has been used. The ADBB and PIPE are rated using videos. The authors developed the scale as a measure PIPE observation of dyadic interactions, which emphasizes the reciprocal nature between parents and their infants aged 6 to 9 months. In order to construct this scale, Fiese et al. started from the basic principle, demonstrated by research, that the sequences of parent-infant interaction typically involve a beginning, a middle and an end to identify (Cohn and Tronick, 1989; Field, 1987). Thus, the PIPE involves systematic observation of parent and child playing together in an interactional play. Moreover, the PIPE was designed for a rapid screening instrument to perform, easy to use in different situations and with no equipment needed, rather than a comprehensive assessment.
Considering that the interactions also involve mismatched phases of initiation, maintenance and end. Mismatched interaction is characterized by intrusive or disengaged stimulation of the parent when the child responds with a neutral or negative affect (Field, 1983; Stern, 1985; Tronick and Gianino, 1986). Parent and child seem insensitive to one another. Over time, these interactions can increase the risk for the child to develop relationship disturbance (Sameroff and Emde, 1989). In addition, we were able to link the suffering in dyadic interactions mother/child with severe organic components with the baby's psychosomatic type gastroesophageal reflux or eczema.

Correlations Between the Investment Profile of Maternal and Baby's Psychopathological Solutions: Multi-Center Research on a "Dyadic Semiology" Problems of Construction of the Primary Link

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Correlations between maternal investment profile and neonate psychopathological solutions: multi-center research on a "dyadic semiology" of problems in primary bond construction.
Establishing a dyadic semiology is fundamental to research in perinatal psychopathology as this field requires the complexity of the dyadic situation to be taken into account, where each element interacts on—and with—the others.
This situation includes the somatopsychic reality of the mother (of her environment and emotional scaffolding: father of the baby, "mother constellation," mother's mother), that of the baby (infant temperament, genetic and somatic component) and the interaction between mother and baby.
We propose an early identification of pain based on recent knowledge of how the mother-baby dyad functions, modeled as a complex transmodal co-genesis.
We retain three components for the investment of the mother (transmission, processing and seduction) and three types of responses for the baby (somatosis, hallucinosis and 'act early')
Method: After an initial survey investigating 33 "clinical" dyads, we are conducting a validation survey with a multicenter study (Price Fondation de France) which involves four services: a mother/baby unit, a nursery, a shelter for teenage mothers and a neonatal unit.
Results: Initial results show significant patterns:
The "act early" are significantly associated with hypo-processing, hyper-transmission and hyper-seduction (sensitivity 72 %, specificity 71 %, X 2: 0.01, Q: 0.72).
The "hallucinosis" type of attention disorders are associated with hyper-transformation, hyper-transmission and hypo-seduction (sensitivity 61 %, specificity 57 %, X 2: 0.01, Q: 0.62), while disorders of somatic expression tend to be associated with hypo-processing, hypo-transmission and hypo-seduction.
We will show several clinical vignettes illustrating our hypotheses of dyadic psychopathology and develop therapeutic applications of our approach in the management of dyads.

Women's Experience of Being Asked Sensitive Questions During Pyschosocial Assessment

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Aim: This paper will examine women's experiences of routine psychosocial assessment conducted by clinicians in pregnancy and following the birth of their baby. Four case studies will be presented to illustrate the diverse meanings made of the assessment process.
Methodology: This is the first Australian ethnographic study to observe interactions between women, Midwives and Child and Family Health Nurses (CFHN) during the psychosocial assessment conducted antenatally at the first booking visit and postnatally when the baby is 2–6 weeks of age. Eighteen midwives, 15 CFHN and 34 women from diverse cultural backgrounds agreed to be observed. Eleven of the women were born in non English speaking countries. Women and health professionals were interviewed following observations. Data was analysed using descriptive statistics and thematic analysis.
Findings: The following four types of responses or cases represent the key findings. Case 1—'She made me feel really comfortable', illustrates the support provided by midwives and nurses during the assessment process, here professionals took time to listen to women's story and to offer appropriate support. The majority of women (22/34) felt asking these sensitive questions demonstrated a sense of 'caring' by health professionals. Case 2—'it makes me stressed to go through all those questions again', illustrates the distress reported by women with previous trauma. One third of the women described they were 'surprised' at or found the questions were 'daunting'. As these questions were unexpected this impacted on their level of comfort retelling and reliving their previous trauma stories, reflected in Case 3—'I'm not going back there'. This shows the distress that some women experienced when health professionals were inappropriate in the way questions were asked and how they responded. Case 4—'she read too much into that' reflects women's experience of answering questions where the professional misinterpreted their response with a negative impact on their treatment and care.

Conclusion: Women's experiences of these interactions with health professionals impacted on their perception of the care that would be provided by health professionals throughout their perinatal journey. The findings highlight the importance of ongoing training and support.

Midwives Approach to Psychosocial Assessment and Depression Screening

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Aim: 1 Describe the process of psychosocial assessment and depression screening undertaken by midwives in the antenatal booking visit in two different settings in New South Wales (NSW), Australia.
2 Identify the approach midwives take to engaging women and families in services and determine the skills, training and support required by midwives to undertake psychosocial assessment and enable them to provide appropriate ongoing support and referral.
Methodology: Thirty four women and 18 midwives agreed to be observed during the antenatal booking visit. Using a structured observation tool (4D&4R) and field notes, observations were recorded including the approaches (actions and interactions) taken by midwives, the communication styles used and the subtler dynamics of the interaction between the midwives and the women.
Findings: Midwives were observed to vary their approach to psychosocial assessment. In some of the interactions (13/34) midwives followed the structured format and delivered the questions in a directive manner. While in others (21/34) midwives appeared more flexible in their approach, blending sensitive questions as issues were raised in the booking visit. Most/Half of the midwives observed modified the question by rephrasing them to assist understanding. Sensitive disclosures by women were explored with empathy. Conclusion: Overall most participating midwives demonstrated skill in psychosocial assessment. The modification of questions appears to be adopted when assisting in the interpretation and comprehension of the questions; however, this may reflect a level of discomfort on the part of the midwife in asking sensitive questions. To maintain this positive approach midwives require organisational support for ongoing training and clinical supervision.

Smoking and Mental Illness in Pregnancy

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Mental illness is a significant risk factor for smoking during pregnancy. Additionally, health professionals often underestimate the desire and ability of women with mental illness to quit smoking during pregnancy.
Aims: To investigate whether, compared with women without mental illness:
1) Health professionals are significantly more likely to discuss smoking during antenatal visits with women with mental illness;
2) Women with mental illness are significantly less likely to accept smoking cessation referrals;
3) Women with mental illness are significantly more likely to be smoking at delivery.
We also aimed to investigate:
4) Whether midwives are significantly more likely to discuss smoking than obstetricians;
5) Whether discussing smoking at antenatal visits predicts smoking cessation.
Method: Notes were obtained for 400 consecutive women in SE London who were smoking at their first antenatal visit (booking visit) between January 2010 and May 2011. Data were collected on socio-demographic factors, obstetric history, psychiatric and substance abuse history, acceptance of smoking cessation referral, smoking status at delivery and obstetric outcome. Results were analysed via logistic regression analysis using STATA.
Results: After adjusting for significant socio-demographic variables, there was no significant difference after booking in smoking discussions at antenatal visits in women with and without active psychiatric problems, although smoking was only discussed at 7 % of antenatal visits. Women with active psychiatric illness were significantly more likely to accept referrals for smoking cessation than women without (AOR 1.70, 95 % CI 1.03–2.79). Despite this, women with active psychiatric illness were more likely to be smoking at delivery (AOR 2.63, 95 % CI 1.41–4.92).
Conclusions: Women with mental illness are keen to stop smoking during pregnancy, yet they are still more likely to be smoking at delivery. Maternity professionals are only discussing smoking cessation in 7 % of antenatal visits. A more proactive approach is needed by maternity professionals to encourage and support smoking cessation among mentally ill women. In addition, smoking cessation programmes may not be adequately addressing the needs of women with mental health problems; development and evaluation of specifically tailored interventions are required.

There was Something Wrong with Me! Women's Perceptions About Possible Causes Leading to Postpartum Depression

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Even with high international prevalence rates, postpartum depression is still considered as an under-reported disease. In the Brazilian setting, this is a disorder that has received inadequate attention from policymakers, health services, and health professionals.
Aim: The aim of this study was to identify Brazilian women's perceptions about causes of postpartum depression.
Method: The interpretive descriptive study was performed in the city of São Paulo, Brazil with a sample of 15 women. The women were treated for postpartum depression at the Psychiatry Institute of the Clinical Hospital at the University of São Paulo. Data were collected by interview with the women. The interviews were transcribed and inductive analysis was undertaken. Codes were developed and categorized according to similarities.
Results: The results showed that women perceived something was wrong prior to being diagnosed with postpartum depression. Usually they referred to their sense things were wrong as causes of depression. The main causes they identified were: deception about

childbirth as not the process they imagined, families' expectations for women to feel happy and be good mothers, expectations about their babies' sex with preferences for male infants, difficulty managing breast-feeding, extreme worries about taking care of the baby, lack of support from the partners for child care, lack of interest in themselves, and worries about returning to work with no one to care for their children.
Conclusion: Women's perceptions about causes of postpartum depression can provide important triggers for professionals to identify mood disorders. The findings suggest approaches to aid practitioners in the screening and identification of postpartum depression in the Brazilian context.
Financial support from Sao Paulo Research Foundation

Relational Mother-Baby Care in a General Hospital in Luxembourg

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Since 2000, the adult and child psychiatric teams of the Centre Hospitalier de Luxembourg organize joint interventions for comprehensive treatment of pregnant women or new mothers who present psychiatric disorders which endanger the mother-child relationship and child mental health and development.
In the absence of a proper mother-baby unit, the mother is admitted to the adult psychiatric ward. The baby can be an in-patient either with his mother, in the paediatric unit or cared for at home, depending on specific needs. Exploration of attachment patterns and support of the parent–child relationship include involvement of fathers and families as well.
This poster illustrates the model and modalities of collaboration between mental health professionals acting in the child as well as the adult sphere aiming to optimally treat mental illness and to empower maternal-infant bonding in the acute hospital setting.

Comparison of the EPDS-3 with the EPDS-10 for Postpartum Depression Screening

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Aims: To replicate the findings of Kabir, Sheeder and Kelly (2008) who reported that the 3 anxiety items of the Edinburgh Postnatal Depression Scale (EPDS-3) performed better than the full 10-item scale (EPDS-10) at detecting postpartum depression in the first 6 months after delivery.
Methods: Two cohorts of randomly selected women in 2003 (n=332) and in 2009 (n=326) were interviewed in the hospital postpartum unit (2009 only), and by telephone 2 weeks and 2 months postpartum with the EPDS-10. Five datasets of EPDS-3 scores extracted from the EPDS-10 were correlated statistically to the EPDS-10 scores.
Results: The Pearson correlation coefficients for the EPDS-3 and EPDS-10 for all analyses ranged from 0.84 to 0.87. The sensitivities of the EPDS-3 were 0.93–1.0. The Negative Predictive Values were 0.99–1.0. Specificities were 0.56–0.78. The Positive Predictive Values were very low 0.24–0.31.
Conclusion: Like Kabir et al. we found high correlations between the complete EPDS-10 scores and the scores on the EPDS-3 items contained within. The sensitivities and NPVs were extremely high, indicating that if the EPDS-3 was negative, the EPDS-10 would likely be too. However, if the EPDS-3 was positive, the likelihood of the EPDS-10 score being greater than 10 was only about 24–31 %. Our numbers were lower than Kabir et al. who reported a PPV of 56 %. In our community sample, wherein only about 10–12 % of the women were depressed (compared to 20.6 % of the women in the Kabir study), positive responses to the 3 anxiety questions would not necessarily predict positive responses on the other 7 depression questions. There can be a variety of reasons to be anxious such as being unsure about one's competence as a new mother, relationships, anxiety disorders, and worries about money, housing, domestic safety, and support. On the other hand, if a woman is depressed and caring for a new infant, that in itself can increase anxiety. While the EPDS-3 may be a brief and easy screening tool for anxiety, we suggest that the next thing to do after getting a positive score is to follow-up with the other 7 questions of the EPDS-10.

Presentation of a Perinatal and Early Care Unit in a Perinatal Child and Adult Pole at Erstein Hospital (France)

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Presentation of a perinatal and early care unit within a perinatal, child and adult pole at Erstein Hospital (France).
Existing since 1992, the unit deals with situations relating to psychological suffering during pregnancy and until the third birthday of the child for patients living within the boundaries of intersector 67I04.
Description of specificities: exclusively out-patient "Day Hospital and Mobile Team", in a rural and peri-urban area (370,000 inhabitants), well developed primary care network.
A single team liaises with all the partners (from maternity hospitals to mother-baby hostels) in order to maintain continuity from screening to care.

Evolution: Of the care-plan:

- From "Mother-Baby" to "Parents-Under-Twos" day hospitals (3 places (mothers and children) at 3 sites).
- From individual care to group work or two-person (nurse/psychologist) with a majority of day-care.
- Informal meetings with partners at medical-psychological review meetings and "Network information days" (Conventions with 1 maternity hospital, 2 ante-natal clinics and 2 mother-baby hostels).

Of the type of referral:

- From over-whelming urgencies to more subtle indicators of difficulties
- From exclusively psychiatric situations to "psycho-somatic" pathologies (inter-uterine growth retardation, risk of prematurity, pregnancy denial)
- From classic pathologies (depressive decompensation, schizophrenia) to recent types of referrals (isolated young women, with deprived backgrounds, issues relating to addiction…) which require an adaptation of the care-plan.

Of the tools which facilitate the network
Conclusion: In the past 20 years we have noticed the improvements in screening, training of front-line staff and institutional collaborations enabling the early intervention of our team, prior to crisis situations involving risk of family break-up. The poster will present the current deployment and composition of our Unit, its activities, its liaisons and its future projects.

Can an Early Intervention Program for Women with a Psychiatric Disorder and a Child Wish Prevent Relapse During Pregnancy And Postpartum

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Aims: Provide a service for women with psychiatric disorders to obtain preconception information and to make a treatment plan (weighing the risk factors and benefits of several interventions) by shared decision making with as goal to prevent relapse during pregnancy and the postpartum period.
Methods: In an outpatient clinic a specialist team concerning preconception consultation and treatment during pregnancy and the postpartum period makes a treatment plan with the parents (to be) about how to manage the psychiatric problems during pregnancy and postpartum period.
Description of the outcome in terms of psychiatric symptoms or infant problems.
Results: In 2011 27 woman came to the outpatient unit to obtain preconsultation advice. Eight of the women didn't receive any mental health treatment before. Others were referred by other professionals. Most of these where known to have a bipolar disorder. Two couples decided to say goodbye to their child wish. Twelve woman became pregnant in these period or where already pregnant at time of referral. Ten healthy youngsters were born in this period, as is one infant with a low birth weight, and one premature delivery (by 7 weeks). Within the first month postpartum one patient relapsed with a puerperal psychosis and one patient had a postpartum depression.
Conclusion: In pregnancy and postpartum period women with a psychiatric disorder are more vulnerable to develop a relapse of the psychiatric disorder. Although we are just measuring a small sample of patients the first results indicated that patients, if they (decide to) become pregnant, has less relapses after delivery, and that a quick response to early warning signals decrease gravity of the relapses.

The Bordeaux's Perinatal Psychiatry Network and it's Mother and Baby Unit

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This poster will present the functioning of the Bordeaux's Mother and Baby Unit. The specificity of this MBU is to be part of a perinatal psychiatry network, fully integrated in a daily multidisciplinary collaboration with obstetricians, midwives, paediatricians and social workers.

Perinatal Depression: A Psychoeducative Approach of Perinatal Mood Dysregulations

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Background: The treatment of perinatal depressions remains a controversial field.
Aim: To develop and evaluate a psychoeducative approach of perinatal mood disorders.
Method: Women, pregnant or postpartum, presenting a mood disorder and followed by the Perinatal Psychiatry Network (University Department of Adult Psychiatry, Bordeaux), are proposed a group psychoeducative approach of their disorder, in complement of institutional and/or individual psychotherapies, and/or psychotropic treatments. This program is based on a general bipolar psychoeducative program (BIPOLACT, Sanofi-Synthelabo), adapted to perinatal period, especially regarding the biological rythmes and the life style.
Results: The majority of women reports a personal benefit regarding this way of treatment, especially about the comprehension of the physiopathology of the disorder, and the different possible adaptative patterns.
Conclusion: Such an psychoeducative approach of perinatal mood disorders seems to improve mother's insight

A Survey on Prenatal Depression and the Dietary Patterns Among Urban Women

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Aims: To study the relationship between prenatal depression and the dietary patterns in Malaysia.
Methods: This cross-sectional study involved pregnant women attending antenatal clinic in private medical centers around Kajang, Selangor. A sample of 103 women completed a set of validated questionnaire consisting of Edinburgh Postnatal Depression Scale (EPDS), Food

Frequency Questionnaire (FFQ) and 24 h Dietary Intake Record. For 24 h Dietary Intake Record, the women's food intakes were recorded for two working days and a weekend.
Results: Out of 103 respondents, 19.42 % (N=20) of the respondents reported to be depressed during their pregnancy with EPDS score of more than 12. Most of the depressed women were in their third trimester pregnancy (50 %, N=10) with the mean age of 29.35± 3.82 years old and were well-educated as well as earning good household income.
The dietary patterns of the respondents showed that their main sources of carbohydrate were rice (33.3 %) and instant noodles (20 %). Their main sources of protein were hen's egg (50 %), chicken (16.7 %) and prawn (23.35) while their sources of vitamins and minerals were fruits and vegetables.
A high percentage of respondents were deficient in nutrients like folate, calcium, iron, thiamine and niacin that were found to be lower than the Malaysian Recommended Nutrient Intake (RNI). On the other hand, the mean intakes of protein, vitamin A, riboflavin and vitamin C were found to be more than RNI. The mean energy intake was 2305.88± 1163.80 which is lower than Malaysian RNI (2695 kcal for pregnant women).
Conclusion: In conclusion, this study found that depressed urban women had lower essential nutrient intake compared to Malaysian RNI.
Funding/s: Universiti Kuala Lumpur's Short Term Research Grant

Walking Together

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Objectives: Accompany problematic family situations in times of crisis, when the woman is pregnant or when there is a young child, and an adult in difficulty with the use of psychoactive substances.
Methods: The support group is backed up by studies concerning the constitution of carer groups (Kaes, Racamier) and experience in perinatal healthcare (Lebovici, Golse).

- Propose to the health professionals involved with the family that they work in a network, establishing a 'carer' group to make headway and share their reflections.
- Accompany this group work of various professionals, given that the action undertaken is not targeted at the same group or individual (the parent, the adult, the child or the family) while maintaining a common theme and thread, which guarantees continuity in the coordination of the different proposals made to the family.

□ The 'coordinator' of the healthcare team never meets the family, that enables him to stay focused on the diverse and complementary points of view of the different participants intervening either already in place or whose future intervention is programmed.
This group can propose in parallel one or several interlocutors to the family in order to accompany it in its own reflection on its situation and on the interventions that are proposed, and thus help it to develop its own project.
Results: This framework provides all concerned, both professionals and users, space to think through and give meaning to the actions and accompanying measures on offer on the family.
Conclusions: This framework of a support group is effective in situations which are particularly complex, and for which the professionals have the impression at times that they are powerless. It enables those involved, beyond negotiating the passage through the difficult period without abandoning the family, to grasp the issues at stake and the limits of the different services, to strengthen the working links between the structures that have been set up, and to avoid feelings of waning powers, which can jeopardize later investment when faced with similar family situations.

Child Development in Children of Mothers with Eating Disorders

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Abstract: The impact of maternal Eating Disorders (ED) on children is still largely unknown. Women with ED have been found to have a higher risk of various obstetric complications such as miscarriages, prematurity, low birth weight. The impact of maternal ED on child development has been suggested in several domains as growth, feeding and general development.
Aims: This study aimed to determine the effect of active and past maternal eating disorders on child cognitive development and determine whether this was mediated by obstetric complications using a case–control prospective design.
Methods: We recruited pregnant women between 12 and 25 weeks of pregnancy from an inner London hospital and specialist Perinatal Psychiatry and Eating Disorders services. Thirty-one women had an active, 28 a past DSM-IV diagnosis of ED, and 41 were healthy controls. Data on birth weight and gestational age were obtained from obstetric records. Developmental assessments were carried out using the Bayley's Scales III at 1 year.
Results: Data on obstetric complications have been collected on all women, 37 developmental assessments will be carried out (17 current ED, 20 past ED and 25 healthy controls).
Conclusion: Results from the developmental assessments will be presented and discussed; we will also investigate the mediating effect of obstetric factors (gestational age and birth weight).
This project was NIHR funded

Does Perinatal Mood Disorder have a Seasonal Affective Component?

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Aim: A small study conducted on postpartum women in Finland (lat. 59–69°N) concluded that depressive symptoms increased 1.5-fold during periods of limited sunlight and decreased by half during the spring;

these findings support the notion of seasonal variability in onset of perinatal mood disorders (PMD). This study aims to assess whether onset of symptoms during seasons having less sunlight makes perinatal women in Kalamazoo, Michigan (lat. 42°N) more susceptible to developing PMD.
Methods: A retrospective review was conducted on medical records of 93 women with perinatal depression referred to a university psychiatric clinic from September 2007 to December 2010. Electronic health records were reviewed to obtain demographic information, past history of mood disorder and month of onset of mood disorder symptoms; 63 complete data sets were obtained. To estimate variations in duration of daylight (based on date of summer and winter solstice), four seasons were defined and assigned according to month of symptom onset. Autumn and Spring were combined for analysis because of their similar light intensities and similar incidence of PMD. Analysis was performed using a 1×3 chi-squared test.
Results: There was no seasonal difference in onset of perinatal mood disorders in Kalamazoo. The number of subjects with onset of perinatal depression was: Spring-15, Summer-18, Autumn-14, Winter-16 (p=0.77).
Conclusion: Season of symptom onset may not be a significant risk factor for development of PMD in Kalamazoo; however, our findings may be misleading due to use of a convenience sample. This study was conducted in temperate conditions where seasonal light intensity does not vary as greatly as in Finland. It does not exclude the possibility that seasons may influence onset of PMD in regions with long periods of extended darkness. When treating perinatal women, it is important to consider SAD in the past psychiatric history as well as the current season when evaluating for PMD.

Outcome of Perinatal Mood Disorders with Brief Psychopharmacological Intervention

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Aims: To determine the rapidity with which combined psychopharmacological and supportive psychotherapy effectively treats women suffering from perinatal mood disorders in a community sample, and the proportion who benefitted from professional psychiatric care.
Methods: At a community level, the Mother's Mind Matters project advocated with obstetrics care providers to screen prenatal women early and often for mood disorders and to prescribe antidepressants or refer for mental health care when detected. While the majority of women discovered were treated by their obstetrical care providers and/or sent to a local therapist, the more complex cases were referred for professional care. Over a 33-month interval, 271 perinatal women were referred to the MSU/KCMS Psychiatry's Women's Behavioral Health Clinic (WBHC) of whom 100 were seen at least twice. Multiple Edinburgh Postnatal Depression Scale (EPDS) scores were collected on 64 women. Changes in EPDS scores were monitored over the duration of treatment to determine time for reduction of EPDS score to less than 10.
Results: The average number of visits by this sample was 6+/−4 (median=5, mode=3). The mean of the baseline EPDS scores was 20.5 and the mean of the last measured EPDS score was 7.7 (p<0.0001). Remission (EPDS<11) was achieved in 61 % and EPDS<13 in 73 %. The average rate of change of EPDS score was 6.6 points per visit over an average of 3 visits to remission, and by 1.6 points per week over 2 months to remission. The only significantly associated variable with EPDS reduction was race (whites did twice as well as non-whites). About one third of the women did not show significant improvements in their EPDS scores, either continuing to struggle with their conditions under psychiatric care or dropping out altogether. Only three women required hospitalization, primarily for psychoses.
Conclusions: Prompt referral for professional help is beneficial to women suffering from perinatal mood disorders. Brief psychiatric intervention with safe medications and psychotherapy represents effective management for most of the severe cases of perinatal mood disorders in our community. Case management to keep women engaged in treatment may help some, especially those with poverty and social problems.

The Relationship Between Postnatal Depression and Mother-Infant Bonding Over the First Year of Life

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Aim: This study was designed to examine the association between symptoms of postnatal depression and mother-infant bonding, and determine the extent to which poor bonding may persist up to 1 year postpartum.
Background: For some women the development of maternal feelings toward their new infant can be delayed or fail altogether. This may have long term consequences for the emotional and cognitive development of the child. It has been shown that a failure in mother-infant bonding can be successfully treated if identified. The early identification of women who might need such support would enable the medical intervention to be efficiently targeted, thus limiting any potential long term effects on the child. In this current work, the association between early symptoms of postnatal depression and maternal attitude to the baby (mother-infant bonding) over the first year were examined.
Methods: Bonding was assessed using the Mother Infant Bonding Scale (MIBQ), at 4 points postpartum, "early weeks" (1–4 weeks), 9 weeks, 16 weeks and 1 year, in 50 depressed (EPDS≥13 at 4 weeks postpartum) and 29 non depressed mothers.
Results: A significant association between the EPDS score at 4 weeks and bonding score at 1–4 weeks, 9 weeks, and at 1 year postpartum, $X2$ (1)=9.85, p<0.01, 5.44, p<0.05 and 5.21, p<0.05 respectively was found, with a trend at 16 weeks. There was a strong association between bonding in the early weeks and all later time points $X2$ (1)=17.26, p< 0.001, 7.89, p<0.01 and 13.69, p<0.001 respectively. Regression analysis showed early bonding rather than early depression was the major independent predictor of bonding at 1 year.
Conclusion: Depressed women in the early postpartum period can fail to bond well with their baby, and this may persist up to a year later. These results suggest that the early identification of mothers and babies at risk of poor bonding is possible and clinical intervention is indicated.

Anxiety in Asian High-Risk Pregnancies

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Aims: 1) To determine the prevalence of anxiety (generalised anxiety disorder (GAD), panic disorder (PD) and agoraphobia) as diagnosed by the Mini International Neuropsychiatric Interview (MINI) in high-risk pregnant women from 23 weeks gestation 2) To determine whether the Edinburgh Postnatal Depression Scale (EPDS) or State-Trait Anxiety Inventory (STAI) performs better in detecting anxiety in this population
Methods and Subjects: In this cross-sectional study 183 high-risk pregnant inpatients at KK Women's and Children's Hospital, Singapore, were assessed for anxiety using the diagnostic MINI—a brief structured interview for major axis I psychiatric disorders, the screening EPDS—a self-administered 10-item scale originally developed for detecting pregnancy depression, and the screening STAI –a self-administered 40-item scale for state and trait anxiety. High risk status was characterised by one or more of the following conditions: past adverse obstetric history, pre-existing medical conditions, use of drugs with potential effects on pregnancy, pre-eclampsia, intrauterine growth restriction, preterm premature rupture of membranes, placenta previa, placenta accreta, fetal anomaly, multiple pregnancy, gestational diabetes, threatened preterm labour, twin-twin transfusion syndrome or others.
Results: 12.5 % of participants were diagnosed with 1 or more of GAD, PD or agoraphobia. The mean STAI state and trait scores of participants with anxiety were significantly higher than non-cases (state score: 47.68 vs 40.19; $p<0.0062$ trait score: 41.60 vs 34.86; $p<0.0013$). The mean EPDS scores of participants with anxiety was significantly higher than non-cases (12.44 vs 6.00; $p<0.0001$). ROC analysis showed that the EPDS (AUC 0.79) performed better than the STAI (AUC 0.67) in detecting anxiety in high-risk pregnant women. An 8/9 EPDS cut-off is recommended (sensitivity 80 %, specificity 68 %, negative predictive value 95.97 %, false positive rate 28 %, and positive predictive value 26.31 %) to screen for anxiety in this population.
Conclusions: Anxiety is highly prevalent in high-risk pregnant women. The EPDS performs better than the STAI as a screening tool for anxiety in high-risk pregnancies. The EPDS is a quick and simple tool that at cut-off 8/9 may be used to screen for anxiety in high-risk pregnant women in a busy obstetric setting.

Post-Partum Bipolarity: Missed and Dismissed

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Depressive illness in the post-partum period is experienced by a significant number of women. It is estimated that between 20 % and 40 % of mothers will have sufficient symptoms to be considered depressed in the baby's first year, requiring clinical intervention. This presentation will discuss the difficulties of detecting Bipolar Disorder (II) in women presenting with depression in the post-partum period, and put forward a number of non-DSM IV features which may alert the clinician to underlying Bipolarity. It also emphasises the importance of screening for Bipolar symptoms in all patients presenting with depression, and the confounding effects of treatment with anti-depessants, often prior to consultation.

CICO: A French Experience. Consultation for Providing Information, Advice and Orientation to a Woman Suffering from Psychotic Disorder or Bipolar Disorder Prior to the Birth of Her Child

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Pregnancy is a time of intense psychological reshuffles. The mother to be will then seek for the support of their entourage. In this time, the involvement of professionals may be necessary when difficulties arise for the couple in relation to the psychological adjustment required by a child's arrival. The psychiatrist is often the only person the woman suffering from psychiatric disorder will talk to. Pregnancy is not unusual in psychiatric patients because of the new therapeutics, and a better social insertion. Thus, many women live with a partner but these partners are often psychiatric patients or with behavioural anomalies such as drug dependence. Mentally ill women are in special need of preconception interventions. Planning for pregnancy is essential in order to improve outcomes for the mother and her offspring. In case of a pregnancy contemplated, information related to potential risks carried by treatments but also by the impact of the pregnancy itself, the eventuality of the inability, for a more or less long period of time, to look after the child as well as the occurrence of possible distortions of the interactions in this context must be adjusted to each parental project. This consists in a reflection of the type "benefit/risk" including the patient, if possible her partner and also involving the referring psychiatrist, the general practitioner, the obstetricians and the paediatricians. This information is not always easy to deliver by the referring psychiatric. Additionally, a tight cooperation between the Department of General Psychiatry and the Infant-Juvenile Psychiatry Department is important in a perspective of prevention that is required to deal with the perinatal/prenatal issues which arise out the formation of a quality bond between mentally ill parents and a baby.
Thus the set up of the consultation CICO (Consultation of Informations, Consuels and Orientation), double child psychiatric and adult psychiatric approach at Saint Anne Hospital, which allows to reflect with the patient on her child desire, to inform her on the course of the pregnancy and to assess the capacity to establish a bond of quality with the child.

Comparing Mother-Baby Early Interaction by G.R.S. (Global Rating Scales of Mother-Infant Interaction) in a Sample of ART-Babies vs. a Sample of "Spontaneous" Babies. The "ART in Florence Project-Team" Longitudinal Study

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Aims: Our aim was to observe the early interaction of the dyad, when the mother had a spontaneous pregnancy or a long and difficult period of artificial reproductive techniques (ART). We especially observed baby communication during the 5min-recorded interaction, and compared the baby reactions when mother speaks, looks or touches him.
Methods: Our research is the first study observing and rating the early interaction in a sample of ART-dyads by an experimental and standardized model such as GRS (Murray et al., 1996; 1998) applied when babies are 45–90 days old. Dyads were recruited during the ART procedures and during the Birth Training Classes in the same Maternity Ward of University Hospital of Florence, NHS. Were eligible all women obtained pregnancy by ART, Italian nationality, negative to past psychiatric diagnoses (M.I.N.I.); similar sociodemographic characteristics. During the third trimester of pregnancy we administered them the EDS (Cox et al., 1996) and it was administered again before the GRS recording as EPDS (Cox et al., 1987; Benvenuti et al. 1999).
Results: Our results showed a good interaction in the two subsamples but in ART-dyads babies obtained better scores, than spontaneous babies, in lively and active communication GRS scales. Mothers did not obtain EDS and EPDS mean scores for major depression neither before nor after childbirth, but when we used the cut-off scores we noted in ART-mothers sample minor depression screened signs both before and after the childbirth. While in spontaneous mothers depression signs decreased after pregnancy, ART-mothers showed more signs of mood disorder and probably anxiety too, and for this reason it is noteworthy the lively babies interaction.
Conclusions: The better communication and lively interaction of ART-babies with their mothers, comparing with "spontaneous" babies, is probably due to the intrusiveness of ART-mothers during the GRS. These mothers were found to have higher scores in intrusiveness GRS maternal scale especially when they showed a slight presence of signs of depression, probable anxiety screened by EPDS. The remote scale was higher in "spontaneous" mothers than ART-mothers and this can be attributed to a more quiet and not anxious way to interact with babies

The Family Loneliness of Parents in the First Months of Baby's Life as Vulnerability Factor

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In Western countries, the trend towards individualism, the transformations of the family structure, of the grandparents' position and the social mobility and urbanization have led to the fact that parents are increasingly likely to find themselves isolated from their families after the birth of their baby. They find themselves alone to deal with their own concerns, their expectations and understandable hesitations towards the newborn child. These common and relatively new situations could have effects on the infant, especially as this feeling of isolation does not necessarily lead the parents to seek help from professionals.

Objectives: 1) the family support for the mother-baby dyad at risk during the baby's first 2 months will have a negative effect on the social behaviour of the baby in the future. 2) this effect also depends on the state of psychological distress of the mother, on the family relationships between the parents and their baby, and on the role of professionals. These objectives require a prospective, comparative and longitudinal method of follow-up.
The mother lives with the father of her child in an urban area, she is primiparous and is between 18 and 36 years. The reference group (N1=70) is made up of mothers who are recruited in maternity and who do not belong to a population at risk. The group at the risk (N2=70) is made up of mothers benefiting from a home medical care following a perceived risk. A subgroup is distinguished according to the mothers' feelings of family loneliness.
The perception of family support is evaluated by the SSQ6, maternal sufferings by the EPDS and the STAI-Y, parental alliance by PAI, family functioning with the FACESIII, baby's development with the Brunet Lezine, baby's relational withdrawal by the ADBB scale. The follow-up is done in 7 stages: at the baby's 2nd and 8th weeks, then at the baby's 3rd, 6th, 9th, 12th and 18th months. First results include 25 families.
This risk has direct repercussions on the practice of the professionals.

The Impact of Trauma on the Quality of Early Relations

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We present a paradigmatic situation of a pilot study developed in partnership with an Israelian team (Dr M. Keren) in an Early Infant Mental Health Unit.
The aim of this pilot prospective study, is to show that an intensive and structured care protocol with weekly group therapy (focused on daily caregiving tasks and attachment behaviors) plus individual parent-infant interactional guidance therapy has a significantly greater impact on the parents neglecting and/or abusive behaviors towards their infants, and on the infant's emotional/developmental status, than the standard outpatient individual session. Evalutations are conducted at beginning and 6 months of treatment and 6 months after the end of treatment, with clinical diagnosis DC:0-3R, Home Scale, SCL-90 R, Support self system questionnaire of Cutrona, BITSEA, Life event questionnaire.
In addition, recordings of free play sessions were conducted with two purposes: first observation and evaluation of disorders of the fine interactions using the CIB (Coding Interactive Behavior, Feldman, 1998; Keren, 2001), and then to work clinically, the development of reflective skills of parents with AI (Insightfulness Assessement (Openheim, 2001).
We present a paradigmatic situation of this pilot study involving a child under 3 years supported with his parents who have experienced multiple traumas affecting the construction of secure links early enough with their child. The interests and limitations of this treatment protocol and evaluation would be discussed.

Therapeutic Management of Mothers with Borderline Personality Disorder and their Infants

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Perinatal and infant psychologists and psychiatrists are often faced with complex clinical situations in which unresolved traumatic events emerge from the parent's past in an abrupt way, which hampers the transition to parenthood. Some of these parents, in particular women, meet the criteria for borderline personality disorder (BPD). Therapeutic management of parents with BPD is described as difficult and challenging, even before the infant's birth. The unstable and fragile features of their personality expose borderline mothers to severe difficulties in the transition to parenthood, in infant caregiving, and in the establishment of healthy early interactions. Since the transition to parenthood is known as a period of higher psychological vulnerability, parents with BPD are likely to seek psychological support in perinatal mental health services. BPD phenotype is broadly defined by features of emotion dysregulation (range, intensity, lability, and appropriateness of emotional response), cognitive disturbance (self-image, perception of others and of events), poor impulse control, identity disturbance, problematic interpersonal relationships, and suicidal/self-injurious behaviors, among others. Borderline patients may also show transitory episodes of paranoid and dissociation symptoms. Over the past 15 years, some of us have been brought to provide therapeutic care to mothers with BPD and their 0-to-3 year old children in an outpatient parent-infant public mental health unit: the Vivaldi Parent-Infant Unit, in Paris, France. These situations require a therapeutic setting combining flexibility, stability and availability in order to achieve the patient's compliance. Yet, the clinical setting needs substantial adaptation in order to cope with the mother's characteristics, which include mentalization deficit, sudden mood swings, aggressive words/behaviors directed to the therapist or the infant, as well as difficulties in complying with the scheduled setting.
Aims and Method: Based on interviews made with infant mental health practitioners and on the study of the patients' medical records, the present paper examines the links between maternal past history (life events, childhood experience), the emergence of borderline personality disorder and, in particular, the characteristics of the therapeutic setting proposed to these mothers and their infants, including the professionals' counter-transference feelings as well as the treatment's evolution and outcome.

Parent-Infant Co-Therapy: A Recommended Setting for High-Risk Dyads

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Over the past two decades, parent-infant psychotherapy techniques have been improved and adjusted to complex clinical situations which do not fit to the classical joint and brief therapy setting. This is particularly the case: (1) when we are working with multi-risk families; (2) one or both parents are diagnosed with severe mental health disorders; or (3) parental psychopathology coexists with infant developmental disorders or important socio-emotional symptoms. These families may show high rates and chaotic use of medical and psychiatric services, and repeated patterns of dropout and non-compliance. Therefore, they require a therapeutic setting combining flexibility, stability and availability in order to achieve the family's compliance. Aims and Method: in the present paper we present and discuss a clinical setting, named co-therapy, designed to meet the needs of these high-risk families, and implemented in an outpatient parent-infant public mental health unit. Discussion: The principles of co-therapy assume that only a shared therapeutic work, including two or more practitioners, allows taking into account both parental and infant's needs for care. In the co-therapy setting, a psychotherapist (psychologist) and a pediatric nurse or infant/young child educator are brought to combine their interventions into one setting. On the one hand, the psychotherapist focuses her/his attention on parental past and present representations and their links with current parent-infant relationship. On the other, the co-therapist focuses her/his attention on the infant, and reinforces the recognition by the parent of the infant's feelings, needs and behaviors. The usual treatment also includes sessions with a psychiatrist (once or twice/month). She/he is medically responsible for the treatment, ensures continuity by her/his relative distance from weekly appointments (more subject to abrupt swings), and is in charge of the links with the external partners, in collaboration with the social worker, when necessary. Conclusion: The treatment of these complex situations is discussed and elaborated by the practitioners during regular team reunions, in order to adjust the intervention to the families' evolving needs.

A Register of Women Referred to the Perinatal Mental Health Service During Pregnancy with Regard to their Physical and Mental Health and that of Their Baby

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Aims: To establish a register of the outcome of pregnancy in women referred to the Birmingham Perinatal Mental Health Services with mental health problems, reporting on severity of mental illness and use of medication. The register aims to add to the limited evidence that is available on the effects of a range of medications to the unborn child. This will enable clinicians to advise pregnant women with a greater degree of certainty.
Background Review: Untreated mental illness during pregnancy carries substantial risks to the mother and unborn child. Additionally, factors including smoking and drinking alcohol add to these risks. The fear that medication of any sort may be harmful during pregnancy outbalances any understanding of the potentially damaging effects of untreated illness.

NICE clinical guidelines on Perinatal and Antenatal Mental Health 2007 give advice on the teratogenic risk of psychotrophic medications during pregnancy and also the use of medication at other times including breast-feeding but comment that there are "significant limitations to the evidence base" especially with newer drugs (Department of Health, 2007). Information has never been collected in a systematic way.
Method: All pregnant women referred to Birmingham Perinatal Mental Health Services are registered. Information is gathered including maternal age, ethnicity, genetic factors, maternal chronic physical illness, use of folic acid, cigarette smoking, alcohol consumption, the diagnosis and severity of any mental illness and any medication prescribed. Patients are followed up during pregnancy and changes in mental state and medication prescribed is recorded. After birth information is collected including gestation length, birth weight and congenital malformations.
Results: Initially problems were encountered in the collection of information in a consistent manner. Two hundred and one women were registered in the 3 years, the majority of whom suffered from a mood disorder (60.7 %). Fifty eight per cent took medication (52 % took psychotropic medication).
Conclusion: Results have shown that it is possible to collect this data in a naturalistic manner though initial difficulties slowed the collection of data. As numbers increase, the power of the study will be increased and the information will add to the evidence base for the safety of psychotropic medications in pregnancy.

Assessing the Mental Health Status of Partners of Women Admitted to the Western Australian Mother Baby Unit

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Aim: This presentation will report on a study that will systematically gather demographic and psychosocial information from partners of women admitted to the WA Mother Baby Unit and measure the level of depressive symptomatology being experienced by partners, with the objective of providing answers to the following research questions:
1.Do partners of women admitted to a perinatal psychiatric in-patient facility in Australia report clinically significant levels of depressive symptomatology?
2.Do partners of women admitted to a perinatal psychiatric in-patient facility in Australia believe they have adequate practical and emotional support?
Method: A descriptive cohort study: designed to systematically gather psychosocial, demographic and psychological information from a cohort of men currently in a relationship with a woman admitted to the Western Australian MBU for psychiatric care.
Two questionnaires will be used in this study—the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987) and a purpose-designed demographic questionnaire:
Results: It is expected when the study is concluded that informed decisions will be made in regards to the psychological and social needs of the complete family system, (mother, father and child/ren), and thus provide clear directions for how to proceed with the most beneficial treatment for the patients cared for by the Western Australian Mother Baby Unit.
Conclusions: Whilst a significant amount of research has been conducted on maternal mental health during the perinatal period, less attention has been focussed on the fathers or partners mental health status during this major life transition.
There is now a growing body of evidence indicating that the partner of the expectant or newly birthed mother is vulnerable, particularly if their partner is diagnosed with a mental illness (Harvey and McGrath I988, Love stone and Kumar 1993, Areias 1996a,1996b, Ballard and Davies1996; Deater-Deckard1998,Soliday1999,Zelkowitz and Millar2001) While it is acknowledged that the small sample size precludes various statistical analyses, the sample should provide a good representation of the population of partners admitted into the WA Mother and Baby Unit. To our knowledge there is no information available nationally about such populations, and very little available internationally.

Impact of Perinatal Stress on Mother-Infant Interaction: Mother-Infant Interaction and Infant Outcome in Mothers with Mood and/or Anxiety Disorder

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Background: Maternal anxiety and depression in perinatal period might affect infant outcomes. Causal pathway from maternal stress to infant socio-emotional development needs to be identified for the early intervention to mother-infant dyads. The first purpose of the study was to identify at 7–9 months of age whether there were specific dyadic mother–infant patterns of interaction in mother–infant dyads with anxiety and depression. The second purpose was to examine the potential impact of these dyadic patterns on the infant's developmental and socio-emotional outcomes.
Materials and Method: We assessed index mothers with mood and/or anxiety disorder (N=16) and control mothers (N=20) at 7–9 months in face-to-face interactions with their infants using Global Mother-Infant Interaction (GMII; Murray et al., 1997). Mothers psychiatric assessment were carried out using the Structured Clinical Interview for DSM-IV (SCID; NYSPI, 2002). We examined the contribution to mother -infant interaction of maternal psychiatric symptoms based on the Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987), as well as maternal bonding assessed by the Mother-to-Infant Bonding Scale (MIBS-J; Yoshida, submitted). Infant developmental outcome were assessed using Denver Developmental Screening Test at 12 month (DDST; Frankenberg, 2002) and Child Behavior Checklist (CBCL2-3; Achenbach 1991) during 24–36 months of age.
Results: Index mothers were more intrusive and expressed more negative emotion to their infants during face-to-face interaction even after their psychiatric symptoms were remitted (Low EPDS score and no SCID diagnosis). Infants of control mothers who indicated poor mother-infant interaction showed reduced social responsiveness. No developmental delay was observed in both groups and Two infants of index group showed above clinical threshold in CBCL2-3
Conclusions: Mothers with anxiety/depressive symptoms show poor mother-infant interaction, and their infants show early signs of reduced social responsiveness that are related to both individual infant differences and a lack of maternal sensitivity to engage in social interactions.

Perinatal Mood Disorders and Postpartum Eating, Weight and Shape Dissatisfaction

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Aims: The transition to motherhood is marked by physical transformation. Eating disorder (ED) history and perinatal mood disorder (PND) may contribute to perinatal weight, shape, and eating concerns. We hypothesized: 1) ED history would be more prevalent in women with PND; 2) Women with ED history, comorbid depression and anxiety symptoms would report greater weight, shape and eating concerns; 3) Women with greater weight, shape, and eating concerns would report less lactation intensity.
Method: In sum, 52 women were recruited to take part in a study of PND and lactation. Participants were enrolled in the third trimester of pregnancy and administered the SCID. They also completed self-report questionnaires–Edinburgh Postnatal Depression Scale (EPDS), State Trait Anxiety Inventory (STAI) and the Eating Disorder Examination Questionnaire (EDE-Q: weight, shape and eating concerns)–at pregnancy and at 2 and 8 weeks postpartum. PND was defined as an EPDS score≥10 at any timepoint. Age, education, and BMI were covariates.
Results: Participants were 31 years on average and largely college educated (53.8 %). Fifteen women reported PND (30.6 %) and 7 women (12.2 %) reported an ED history. Of those with PND, 25 % reported ED history; of those without PND, only 3.4 % reported ED history ($X2 = 5.1$, $p<.05$). At 8 weeks, higher EPDS scores predicted greater eating concerns (e.g., guilt over eating) and shape concerns (e.g., dissatisfaction with body shape) when BMI and ED history were controlled ($p<.05$). Greater weight concerns (e.g., dissatisfaction with weight) were predicted only by higher postpartum BMI ($p<.05$). Lactation intensity was greater when women endorsed greater weight, shape and eating concerns (EDE-Q Global Score; $p<.05$)
Conclusion: The postpartum period represents a fragile time for eating, weight and shape concerns. Women with PND are more likely to have an ED history and greater depression scores predict greater eating and shape concerns. In turn, women with greater eating and shape concerns may be receptive to breastfeeding in order to manage postpartum shape changes.