Contraception and Sexuality

20

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20.1 Introduction

Contraception separates sexuality from reproduction, thus allowing women and men to express and live their sexuality (more or less) free of the fear of unintended pregnancies. Not wanting to get pregnant is based on a myriad of reasons which have to do with life circumstances and life plans.

Thus, contraception is an essential contribution to sexual and reproductive health, both before becoming pregnant and after the pregnancy. Unplanned pregnancies can confront the woman and her partner with a difficult decision regarding termination or continuation. Both options pose medical and psychosocial risks to the woman's health and the child's health in case of continuation. Proper contraception allows reliable planning and preparation for a pregnancy in a reproductive life plan.

For the woman's optimal reproductive and sexual health, contraception after childbirth deserves the same respect and attention. Another pregnancy soon after childbirth increases the risk of pregnancy complications, reduces the vital period of breastfeeding, and endangers family stability and child development. A pregnancy within 18 months increases premature rupture of membranes and placenta previa compared with becoming pregnant after 18–36 months [1].

Therefore, the midwife has a crucial role in contraceptive counselling and care before pregnancy and postpartum.

This chapter will start with general information about contraceptive counselling, followed by an overview of contraception and sexuality. The different contraceptive methods will be reviewed for their possible positive or negative impact on sexuality, followed by specific aspects of postpartum counselling. Since any method can fail,

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the chapter will address two backup possibilities, including emergency contraception and abortion. Finally, the elements and practice of sexual counselling in contraception will be explained.

20.2 Contraceptive Methods

Just as a reminder, Fig. 20.1 gives a pictorial overview of the most common contraception methods and their reliability (redrawn from: https://www.optionsforsexualhealth.org/facts/birth-control/).

Contraceptive methods can be associated with health risks.

The WHO regularly updates the scientific evidence regarding these risks in the Medical Eligibility Criteria [2]. These criteria describe the risks for the most important clinical conditions for all available methods. The risk classification comprises four categories.

Category 1: A condition for which there is no restriction on the use of the contraceptive method.

Categories 2 and 3: A condition where one can weigh the advantages and risks of using the contraceptive method.

Category 4: A condition representing an unacceptable health risk for a given contraceptive method.

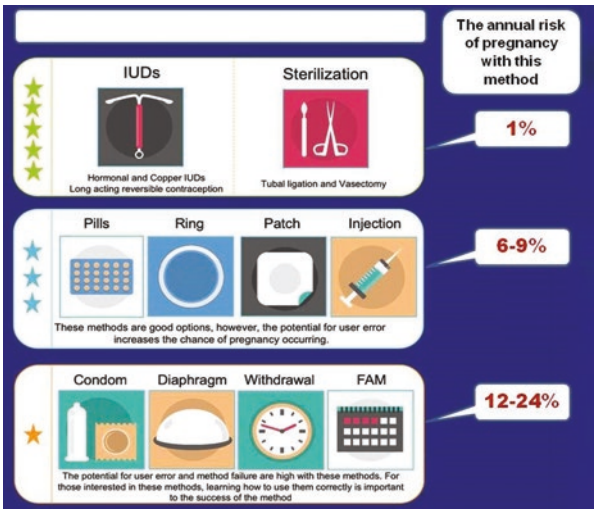

Fig. 20.1 The reliability of contraception

20.3 Contraception and Sexual Function

Although contraception plays a significant positive role in women's sexual and reproductive health, many studies indicate that women and men may experience both positive and negative consequences of contraception on their sexual well-being and sexual function.

How is this possible?

There are several levels or dimensions on which contraceptive methods can interact with the sexuality of the woman (or man) and the couple.

Separating reproduction from sexuality, although being the objective of contraception and although intended to create freedom, can on an emotional level also be experienced as a deprivation of a profound potency or detract from the essential meaning of the sexual encounter

(a) Contraceptive methods can interfere with *the physiology and neurobiology of the sexual response.*

The physiology of the sexual response is under the influence of a complex interaction of three hormones: oestrogens, testosterone, and progesterone.

Estrogens make the brain receptive to the influence of testosterone, and they are essential for the integrity of the vaginal mucosa.

Testosterone (and other androgen hormones) are needed for sexual desire and influence the frequency of sexual thoughts, sexual fantasies, and nocturnal genital responses. With significant interindividual differences, androgens increase the sensitivity of brains and genitals to sexual stimulation (arousability or 'being horny') [3].

Progesterone's role in sexuality is not yet well understood. It may have an indirect effect via a reduction of anxiety and stress. But that is still under investigation.

These hormones exert their effects via the interaction with different neurotransmitters like serotonin, noradrenaline, and acetylcholine, in that way allowing a large variety of responses depending on the receptors in the target cells of the brain.

Hormonal contraceptives influence these physiological processes resulting in changes that may go unnoticed but may also have obvious consequences. The results of those changes can facilitate but also inhibit the sexual response mechanisms.

(b) Contraceptive methods can both have a negative and a positive *impact on the general physical and mental well-being.*

(c) Contraceptive methods can *directly impact the relationship and the sexual encounter.*

(d) Contraceptive methods can have a 'social image' that may influence sexual well-being (an example, anxiety regarding risks may harm sexual arousal).

The impact of all these factors can be further modified and influenced by pre-existing sexual health conditions or pre-existing sexual problems.

20.3.1 Combined Hormonal Contraceptive (CHC)

20.3.1.1 Separating Sexuality and Reproduction

The contraceptive pill ('the pill') has two features that can affect inwardly ambivalent women about this separation. One is the high efficacy which makes the separation so effective, thus activating the ambivalence. The other is controlling this effect by the user's adherence or non-adherence.

Ambivalence can thus manifest itself in sexual 'dysfunction' or compliance difficulties.

20.3.1.2 Impact on the Physiology and Endocrine Regulation

Combined hormonal contraceptives contain oestrogens and progestogens. The progestogens are the primary ovulation-inhibiting substance. Since, during hormonal contraception, the ovaries do not produce enough (endogenous) oestrogens, artificial oestrogens are added ('replaced').

Combined hormonal contraceptives can interact with sexual physiology on several levels:

(a) They reduce the fluctuation of ovarian hormones through the cycle and block ovulation.
(b) They increase to different degrees SHBG,[1] reducing the free testosterone levels. SHBG is a globulin in the bloodstream that tightly binds to testosterone and oestradiol, by which they lose their bioavailability. Then, the body can use only the tiny part that stays bioavailable.
(c) They partly replace the natural hormones and change the sum of estrogenic and progestogenic actions.

We must realise that most women do not become aware that these changes are physical or mental symptoms because the female body is 'used' to hormonal fluctuations and changes in hormonal concentration (like menstrual cycle and pregnancy).

In part of the women, these changes may have the following effects:

- Not enough oestrogen action: irregular blood loss. Some women can get vaginal dryness.
- That is not the same as lacking lubrication (insufficient lubrication during sexuality usually means insufficient sexual stimulation).
- *Too much oestrogen action: increased SHBG → reduced free testosterone level with subsequent lowered desire and arousability.* Those anti-androgenic effects of oestrogen may or may not be counteracted by the more or less androgenic potency of the progestogen used.
- *Not enough testosterone action: lowered desire and arousability.*
- *Too much testosterone action: skin and hair problems.*

[1] SHBG = Sex hormone-binding globulin, a protein in the bloodstream.

- *Too little progestogen:*?
- *Too much progestogen: antiestrogenic effect.*

20.3.1.3 Impact on General Well-Being

Combined hormonal contraceptives can have positive or negative effects on general well-being, which indirectly can influence sexual well-being.

Possible positive effects of CHC are:

- Reduction of heavy menstrual bleeding and dysmenorrhea.
- Reduction of cycle-related complaints like PMS (premenstrual syndrome) and PMDD (premenstrual dysphoric disorder) mainly when used in a long-cycle-manner (i.e. continue taking pills for several cycles or till a breakthrough bleeding).
- Improvement of hyperandrogenic skin and hair disorders (acne, hirsutism) with a positive impact on body image.

Possible adverse effects of CHC are:

- Irregular bleeding,
- subjective weight gain,
- irritability,
- mood instability,
- skin symptoms.

20.3.1.4 Impact on the Relationship

CHC can help partners enjoy sexuality without fear of pregnancy and the consequences of unintended pregnancies on the relationship.

However, one partner, especially the woman, can view the responsibility for using contraception as 'unjust', expecting that the other partner should take over the responsibility. The woman may feel forced into taking hormones which may change her personal view on the tolerability of the method, and the sexual encounter.

20.3.1.5 The Role of the Social Image

As mentioned before, the woman can, on the one hand, perceive combined hormonal contraceptives as welcome tools of female emancipation. On the other hand, she can perceive them as 'big pharma' manipulation tools that will depend on the information in the media and the lack of proper reproductive health education (including pictures and stories). The threats and dangers of taking the pill are extensively spread in some countries, whereas the beneficial effects do not receive attention ('Only bad news is good news!'). It is, for instance, seldomly mentioned that having used CHC for some years will substantially reduce the incidence of colorectal cancer and even strongly reduce the incidence of ovarian cancer and endometrial cancer [4].

20.3.2 Progestogen-Only Contraceptives

Progestogen contraceptives include progestogen-only pills, LNG-IUDs, LNG implants, and long-acting progestogen injections (medroxyprogesterone = Depo-Provera®).

20.3.2.1 Separating Sexuality and Reproduction

The impact on the separation between sexuality and reproduction is the same as described above for CHC. When it comes to the long-acting methods like LNG-IUDs and LNG implants, the fact that the method needs a medical professional for insertion and removal may increase the feeling of loss of control, which can negatively impact the inner perception of the method and the emotional reaction to it (being a foreign body which is not under control like ingesting a pill).

20.3.2.2 Physiology of the Sexual Response

Progestogen-only contraceptives effectively inhibit ovulation.

The main differences in comparison with CHC are the following:

(a) There is no increase in SHGB and thus no reduction of free testosterone. In observational studies, progestogen-only users do not observe the loss of interest or desire as seen in users of combined hormonal contraceptives.
(b) There is a reduction of oestrogen supply, with different degrees in different methods.

That depends on the dose of the progestogen applied. The highest progestogen exposure is in the users of Depot progestogen injections. A rather negative impact could be the reduction in the thickness of the vaginal wall and a reduction in blood flow during arousal. But there are no studies yet proving this.

20.3.2.3 Impact of Progestogens on General Well-Being

Possible positive effects:

- They can improve well-being by reducing dysmenorrhea and heavy menstrual bleeding,
- In some women, they may mitigate pre-existing premenstrual syndrome (PMS).

Possible negative effects:

- Irregular bleeding,
- Unwanted amenorrhoea,
- Acne,
- Weight gain (especially with Depo-Provera®).

The impact on the relationship can be the same as with combined hormonal contraceptives.

The role of the social image depends very much on whether the progestogen-only contraceptives are perceived as 'hormones like in the pill' (bad news) or as to how dose preparations without thrombotic risks (good news).

Another aspect of the social image concerns news about depression, mainly in adolescents.

20.3.3 Copper IUD

The copper IUD is an effective contraceptive method with a good safety profile.

There is no impact on the physiology of the sexual response.

An indirect negative impact would be on those women who have heavy menstrual bleeding or pain during or between menstruations.

When the threads are cut too short, they can cause pain to the penetrating penis.

The psychological impact of a very effective method outside the woman's control may also have an indirect negative effect on the 'inner representation' of the method, which she could theoretically experience as less pleasurable sexuality.

There are, however, no studies proving such an association.

20.3.4 Local Barrier Methods (Condom, Cervical Cap, Female Condom)

Both male condoms and female condoms protect against unwanted pregnancies and many STIs when properly used. Therefore, they are crucial preventive instruments in Sexual and Reproductive Health Care.

This aspect can be very motivating regarding the use of the male condom. Partners can experience using condoms as an expression of shared responsibility, which then can improve their sexual experience.

On the other hand, condom use demands an interruption of the sexual interaction at the time when both partners are sexually aroused. Whereas some couples experience that interruption as a loss of arousal, in others, it will be a boost in their sexual arousal. For some men, the condom means less sensation and less pleasure at penetration and intravaginal movements. For some women, it will mean unpleasant feelings or dyspareunia. Without a condom, the foreskin of the uncircumcised penis will retract during penetration, gradually unfolding the glans, diminishing the risk of dyspareunia. Finally, there may be a negative impact on the enjoyment of the sexual encounter due to insecurity and fears regarding pregnancy.

Especially after alcohol or an intense orgasm, both can fall asleep before leaving the vagina, with the risk of losing erection and semen seeping into the vagina.

Table 20.1 Method satisfaction, overall sexual satisfaction, and negative mood changes concerning different current and past contraceptive methods in a population-based survey [5]

Method	*N*=	Satisfaction with Method	Overall Sexual Satisfaction	Negative Mood Changes
Oral contraceptives	1.303	68%	44%	16%
Condom	996	30%	11%	23%
IUD	342	59%	30%	
FABM	428	43%	28%	30%
Female sterilisation	139	92%	57%	

20.3.5 Fertility Awareness-Based Methods (FABMs or FAMs)

Fertility awareness methods have no impact on the physiology or anatomy or the sexual response, nor do they have adverse side effects which may impact sexuality besides the insecurity and fears regarding a possible failure in preventing pregnancy (see condom above).

They may positively impact the sexual experience because women using FABM are usually very interested in learning more about their bodies and their body responses. They feel empowered, and by developing security and a positive feeling towards their body, their sexual response will be more welcome and enjoyable.

20.3.6 Overall Effects of Various Contraceptives

A German population-based survey among 1.466 current and past female users of different contraceptive methods looked at satisfaction with the method, overall sexual satisfaction, and negative mood changes [5]. (see Table 20.1). The overall effects of contraceptive use on various aspects of sexuality are positive.

20.4 Contraception after Childbirth

The best time to start discussing contraception is during the pregnancy for several reasons. With all its emotions, the immediate postpartum period is frequently not ideal to think and decide quietly.

For those couples who have reached their desired family size, it is valuable to discuss sterilisation already during the pregnancy. Vasectomy can be performed during the pregnancy. Tube ligation can be done during a caesarean section or in the first 7 days postpartum.

The last trimester of pregnancy is also an excellent time to discuss child-spacing. Usually, it is recommended to wait 18–24 months before getting pregnant again (but less than 5 years) to diminish pregnancy complications and health problems [6].

Postpartum contraception requires special knowledge of how suitable a method is. Whether and how the woman is breastfeeding is a relevant factor.

Table 20.2 When to safely start the various family planning methods in relation to childbirth?

Family planning method	(Nearly) Fully breastfeeding	Partially breastfeeding	Not breastfeeding
Lactational amenorrhoea method	Immediately	Not applicable	
Progesterone releasing Vaginal ring	4–9 weeks postpartum	If breastfeeding ≥4/day, start at 4–9 weeks postpartum	Not applicable
Progestin-only injectable	6 weeks postpartum	6 weeks postpartum	Immediately
Combined oral pills (CHC) Combined patch Combined vaginal ring Monthly injectables	6 months postpartum	6 weeks postpartum	21 days postpartum
Male sterilisation (vasectomy)	Immediately or during the partner's pregnancy		
Female sterilisation	Within 7 days; or during the caesarean section; Or from 6 weeks postpartum		
Male or female condoms	Immediately		
Spermicides	Immediately		
Copper IUD/ LNG-IUD	Within 48 h; or from 4 weeks postpartum		
Diaphragm	Can be fitted from 6 weeks postpartum		
Fertility awareness methods	For symptom-based methods: Start when normal secretion has returned For calendar-based methods: Start after three regular menstrual cycles For breastfeeding women, one can start later		

Since early times, LAM (lactation amenorrhoea method) has been the common child-spacing method. As long as the woman practices exclusive breastfeeding, the risk of becoming pregnant stays in the first 6 months below 1–2%. The ovulation risk is lowest with a higher frequency of breastfeeds, with a longer duration of each feed, and with the inclusion of night feeds.

Table 20.2 shows the earliest time that a woman can start a family planning method after childbirth.

Particular factors to be considered in postpartum contraceptive counselling.

Several studies have shown that the postpartum period is accompanied by an increased risk for sexual problems in both partners. Here are some of the contributing factors.

Prolactin is increased in breastfeeding women, and this hormone is known to reduce sexual desire.

During breastfeeding, oestrogen levels are low, which may contribute to thinning of the vaginal mucosa (increasing the risk of all-day vaginal dryness and itching), and testosterone levels are also low, causing diminished desire and arousability.

The psychosocial transition from a dyad to a triad may lead to emotional distress and insecurity about roles, expectations, and difficulties to adapt to the new interpersonal situation.

All these factors should be considered when women complain about negative changes in their sexual life during the postpartum period.

During the postpartum period, it is recommended to counsel women also about emergency contraception.

20.5 In Case of Failure?

Proper contraceptive care has to be accompanied by solutions if things go wrong.

On the one hand, when the woman/couple realises that sex (with ejaculation) took place without adequate contraceptive protection, there should be the possibility of emergency contraception. Examples of unprotected intercourse (UPI) are a torn condom, a forgotten pill, or non-consensual sex.

On the other hand, when the woman discovers to have conceived, there should be the backup possibility of safe induced abortion. Those backup possibilities are relevant for women's empowerment and will positively influence sexual health. That is the care reality in those countries where the laws do not restrict abortion.

20.5.1 Emergency Contraception

Emergency contraception is indicated when a woman or couple has had unprotected intercourse (UPI) independent of the menstrual cycle. In some countries, oral emergency contraception is also called the morning-after pill. There are several methods with different reliability, here mentioned in decreasing reliability (Copper IUD > Ulipristal > oral levonorgestrel > Yuzpe regimen) [7].

20.5.1.1 Copper IUD

The copper IUD is the most effective emergency contraception method, with the additional advantage that the woman can continue using the copper IUD as a long-acting contraceptive method.

20.5.1.2 Ulipristal 30 mg

Ulipristal is effective up to 120 h after UPI and seems to be more effective than LNG

- Ulipristal does not affect an existing pregnancy and is not associated with congenital abnormalities for 1 week after the use of Ulipristal.
- Breastfeeding women should express and discard the breastmilk.

Contraindications: severe asthma; severe hepatic impairment; using liver-enzyme-inducing drugs.

Side effects: nausea, breast tenderness, dizziness, fatigue, gastrointestinal discomfort, headaches, menstrual cycle irregularities, mood alteration, myalgia, nausea, and pelvic pain are side effects that may occur but are rare. After Ulipristal, the woman should wait for 5 days before starting suitable hormonal contraception to avoid reducing its effect by the progestogens from oral contraceptives.

20.5.1.3 Levonorgestrel (LNG) Oral 1.5 mg

LNG is licensed for use up to 72 h after UPI. After that period, it is unlicensed, with established efficacy of up to 120 h but less than Ulipristal. LNG 1.5 mg does not affect existing pregnancies.

20.5.1.4 Yuzpe Regimen

Within 72 h, the woman takes several of the usual CHC pills. One can use this less reliable method when other emergency methods are unavailable.

20.5.2 Abortion

Women/girls with an unintended pregnancy can decide to continue or terminate the pregnancy. Some of those who continue the pregnancy will get an unwanted baby, which is neither good for the mother, nor the child. When living in those parts of the world where laws restrict abortion, there is the risk of (self-induced or other) unsafe abortion, with severe consequences to her life, health, and well-being.

Where abortion has become legal, two kinds of safe induced abortion are available: aspiration ('surgical abortion') and medication ('medical abortion'). Both are very safe, with a complication rate far lower than the complication rate of ongoing pregnancies. Neither of these methods influences future fertility unless there is a very rare complication.

Surgical abortion takes place in a clinic or hospital. Most of the procedures occur by vacuum suction, with the blood loss being less than normal menstruation.

Medication abortion takes several days. Mifepristone, a progesterone-receptor antagonist, stops the pregnancy, after which (2 days later) misoprostol, a prostaglandin analogue, is given to empty the uterus. The blood loss tends to be more than in a monthly period.

The WHO provides detailed information on: medical management of abortion [8].

Psychological factors, religion, and society's attitudes strongly influence the emotional and sexual consequences of induced abortion. After international studies on abortion outcomes, there is a strong consensus that relief is the dominant feeling in the immediate and short-term aftermath and that the incidence of severe negative responses is low [9]. A year after the abortion, most women viewed the sequels as a process of growth and maturation. However, grief and guilt were also found, especially in women with a religious upbringing. The minimal research on sexuality after induced abortion neither gives consistent positive nor consistent negative consequences [10].

20.6 Sexual Counselling in the Context of Contraception

Based on the above-described possible positive and negative effects of contraceptive methods on sexual function, it will be evident that sexual counselling must be tailored to the individual patient when a problem arises. It is helpful to structure the counselling process into different steps

1. Encourage the patient to talk about the problems, for instance, by introducing the issue of sexual health. *'Contraception shall help you enjoy sex without any fear of unintended pregnancy. For the large majority of women, contraceptives positively affect their sexual life. Nonetheless, some women may feel changes in their desire or arousal or other aspects of their sexual life, and then it is important to talk about it and see what we can do!'*.
2. Describe the worries as problems with desire, arousal, orgasm, pain, or satisfaction and find a common language with the patient to make the dialogue comfortable for her.
3. Ask about pre-existing sexual function and take *a sexual history* (how was sexuality lived before, what has changed, what was positive?).
   (a) It may be that this is the first time that the patient is encouraged to talk about sexuality and that there are longstanding problems that she never talked about, like early abuse, violence, et cetera.
   (b) Other factors like job, stress, partner, and anxiety about the method's side effects may contribute to the problem.

   If these method-independent factors seem important, keep them in mind for further counselling and help.
4. Assess whether method-typical changes could contribute to the problem (see above for possible adverse effects on physiology and anatomy).
5. Look for a solution:
   (a) If method-specific changes are present, look for possible solutions like changing the method, decreasing or increasing the oestrogen component, using natural oestrogen, et cetera.
   (b) Symptomatic treatment of side effects.
6. Arrange a follow-up consultation to check for improvement. If other contributing factors (see above) are important, provide individual or couple sexual counselling.

The midwife should be aware that contraceptive counselling may be the first and only opportunity to track down sexual problems, even if these problems are not directly related to the method.

Healthcare professionals should use this opportunity.

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Further Reading

Family Planning; a global handbook for providers. 2018, Updated 3rd ed.
Under the World Health Organisation Department of Reproductive Health and Research umbrella.
Free copies are available 'for providers in developing countries'.
Via orders@jhuccp.org (add your name, complete mailing address, and telephone number).
Or via http://www.fphandbook.org/orderform