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Pregnancy in the Single Adolescent Girl: The Role of Cognitive Functions

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Interviews were conducted with 211 single adolescent girls, free of known psychiatric disturbance, who had undergone an elective abortion at a metropolitan municipal hospital. Besides providing help for the possible emotional stress connected with their situation, it was learned to what extent they were acquainted with birth control methods and had actually attempted to avoid their pregnancy. Similar data relating to birth control were obtained in interviews with a group of 200 single adolescents pregnant for the first time, and from 50 girls serving as controls who had effectively practiced birth control for at least 6 months. The great majority of the girls came from the same socioeconomic background, close to the subsistence level. The results indicate that about three-fourths of the pregnancies were unintended. Besides the implied external difficulty involved in finding a congenial low-cost birth control clinic, three psychological cognitive mechanisms were uncovered which virtually block the conversion of birth control knowledge into its successful practice. This finding suggests that adolescent out-of-wedlock pregnancies do not exclusively arise from motivational factors.

INTRODUCTION

When, in the late 1960s, some states eased the legal barriers to elective abortion, women were no longer compelled to carry their pregnancies to term, and so many opted for elective abortion. This development was instrumental in shedding new light on the psychosocial origins of pregnancies in single adoles-

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cent girls. In counseling sessions before and after the procedure, set up to help them meet the attendant emotional stress, they volunteered valuable information on the circumstances of their conception. These data tend to call for a drastic revision of the previously assumed complexity of the origins of these pregnancies (Bernard and Crandell, 1968; Liben, 1969; Kinch and Kruger, 1970), and at the same time, suggest new avenues for preventive efforts.

In the Gyn Day Hospital Unit of the Bronx Municipal Hospital Center, abortions have been performed on an ambulatory basis, up to the twentieth week of gestation, since July 1970.[2] Roughly 12% of the abortion patients have been single adolescents below 18 years of age (Strausz and Schulman, 1971).

The patient care in the Unit included, among other things, careful intake interviews on the patient's medical history and background, the circumstances of the pregnancy, and the contraceptive history. In addition, at the start of the Service until the end of 1971, single adolescents below 18 years of age were also routinely counseled by a mental health professional before the procedure.

This setting provided a natural opportunity for systematically gathering data on psychological aspects of the entire episode in the life of these adolescents that were directly, or indirectly, related to their elective abortion.

MATERIAL AND METHODS

Between August 1970 and May 1971, close to 100 single adolescents 18 years of age and below and an equal number between 18 and 20 years of age were seen before the abortion, as well as a few weeks afterward when they appeared at our outpatient department for a checkup and to receive further contraceptive service. In general, these patients came from the less than affluent population segments of Negroes, Puerto Ricans, and Caucasians living in New York City, as well as a good many out-of-town college girls. Most of the adolescents had no history of mental illness or of corresponding treatment by a mental health professional. Their academic performance was satisfactory, and they were not socially isolated.

The purpose of seeing this group of abortion patients was twofold: first, to provide the already mentioned individual counseling; second, to collect essential background and other data on them which, when processed and examined, would serve to formulate policies of primary prevention and effective aftercare directed to the entire community. This patient contact combined service with applied research.

The main tool used in these sessions with the patients has been the personal interview, guided by a checklist that has been and still is being developed and perfected. It covers, in addition to background data, psychosocial parameters governing patient action, motivation, and adaptation. In general, an interview session is completed in 15-20 min.

[2] Since November 1972, patients beyond the twelfth week of gestation, who require a saline procedure to abort, are hospitalized.

The approach to the patients has been the statement that supplying such information would enable us to provide preventive care for the given patient, as well as to the hundreds of women who, in the future, will find themselves in similar circumstances. In the overwhelming majority, this technique has been adequate for gathering the needed data and proved highly successful in establishing rapport.

Furthermore, from January 1971 through December 1972, 11 more adolescents, 17-20 years of age, of a group of 100 abortion repeaters in that period were intensively interviewed by the author, or by Vivian Smith, R.N., our Family Planning Consultant and Health Educator (Cobliner and Smith, 1973).

Supplementary information was obtained through extensive systematic interviews, beginning March 1, 1973, with 200 single, sexually active adolescent girls, free of gross psychiatric disturbance, all residing in the Borough of the Bronx, New York City,[3] who comprised the following groups: 150 girls carrying their pregnancy to term, of whom 50 stayed in their regular school, 50 having transferred to a special school for pregnant girls and 50 being dropouts with no definite plans for the future, and 50-girls choosing elective abortion. Each interview lasted about 20 min, during which a picture of the adolescent's life sphere was obtained. A checkoff list served as a guide and insured uniformity of the data.

The total sample consisted of 411 subjects: 200 adolescents who had had an elective abortion, 11 who were abortion repeaters, and the four groups each of 50 adolescents pregnant for the first time. In general, there was no appreciable difference in the socioeconomic background of the three subsamples, and only a minimum of variation in this respect within each sample. About 10% of girls seeking abortion were out-of-town college students.

RESULTS

As pointed out elsewhere (Cobliner, 1970), a clear distinction should be made between pregnant adolescents below 15 and the group above 16 years of age. The first group contains a large proportion of disturbed girls. The following account refers to the older group, which comprises the bulk of our sample:

In the interviews, the girls who came for an elective abortion gave a detailed account of their knowledge of contraception and its sources, and their attempts, if any, to practice it. They talked at length about their response to finding themselves pregnant, how it affected their relationship to their partners and their families, and also about their conflicts, past or current, concerning the abortion. Particulars about the last and other related topics were discussed elsewhere (Cobliner *et al.*, 1973).

[3] This study, entitled, "Social Isolation and Disposal of Minors' Out-of-Wedlock Pregnancies," which is still in progress, is being financed by HEW under Grant No. HD 07363-01.

The sessions brought out clearly that, in most cases, the pregnancy was an *unanticipated consequence* of their sexual activity. To the best of our information, there has been no serious attempt to consider pregnancies in the single adolescent from such a perspective. The purpose of this paper is to examine the psychosocial elements that enter into this situation.

Somatic Area: Pregnancy, Sexual Function

Only a fraction of the conceptions were intended, and, where this was so, the girls sought to force a marriage or meant to "get even with a parent." Thus most girls manifested detachment from their bodily symptoms, referring to their early pregnancy as a transient disability that gave no cause for affective involvement. Sex is something mechanistic, a premium is placed on performance to create a desire for repetition. If sex is disappointing, the notion that its gratifications do unfold and are, indeed, progressively attained is remote. This fatalistic attitude goes hand in hand with, or springs from, a lack of curiosity *vis-à-vis* one's own body. Hence there is almost no flow of information in this matter of sexual expertise from experienced to inexperienced adolescents, even if they happen to be friends or close relatives. The abundance of inexpensive, easily obtainable books on the subject matter makes no dent in the barrier to sexual enlightenment among single adolescents.

Relationship to Partner

In our sample of girls requesting abortion, widespread promiscuity seems to be rare. Conversely, there is also no hint of a stable or close emotional relationship to the partner. The sessions disclosed several reasons which move a girl to seek the company, however fleeting, of a boy, and others which operate in the opposite direction away from strong intimacy. The girls cited first the pressure of the peer group which, when resisted, threatened ostracism and social isolation. Second, there was the genuine longing for intimacy to compensate for loneliness in the home and school. Following the cue of the boy, however, the girl experienced a vague fear of becoming too close, as it were, and utter dependence. The partner was certainly not chosen because he was a friend; one did not share confidential matters with him, for example, about sexual unfulfillment, nor did he become a friend when sexual intimacy endured for an extended period. At the same time, the girls, with very few exceptions, had no one of the same or opposite sex in whom they could confide, even though they wished they could find such a person. The sessions records conveyed the strong impression that sexual intimacy was a casual "operation," hardly an experience, but rather a by-product or the price of keeping company with a boy. The partner was,

psychologically speaking, just a technical cause of the unintended pregnancy. Many girls did not even let the partner know that he had impregnated them. In withholding this knowledge, the girls expressed their emotional distance from the boy—as they freely admitted—and they also meant to deny him the satisfaction that he was able to procreate, a token of his virility that might raise his self-esteem.

Birth Control and the Single Adolescent Girl

The data relating to birth control, unlike the preceding findings, are based on information collected from all three samples of single adolescent girls: on the group of patients having an abortion, on the small group of abortion repeaters, and on the sample of 200 pregnant girls who agreed to be interviewed even though they were not in need of any help. These last volunteered a good deal of information that gave further insight into the dynamics of birth control knowledge and practice.

Information on Birth Control and Its Practice

As mentioned earlier, the socioeconomic backgrounds, the family situations, and life experiences of our subjects were very similar. It could be shown that countless other girls with almost identical variables escaped the fate of an out-of-wedlock pregnancy. Variations in demographic variables in the family situation, in social or ethnic background, or in the life experience of sexually active girls do not seem to determine whether they will protect themselves against unwanted impregnation (Cobliner, 1970). Indeed, 50 sexually active girls, never pregnant, who had successfully used contraceptive methods for at least 6 months and who were matched in these variables and served as controls in the previously mentioned study on "Social Isolation and Disposal of Minors' Out-of-Wedlock Pregnancies" confirm this statement.

The brevity and scope of the interview precluded the collection of data which would disclose the personal motivation and the dynamic interplay of psychological tendencies in each girl. The interview assembled, instead, information that illuminated the vicissitudes of each girl's contraceptive efforts, e.g., to what extent her knowledge of birth control was converted into its practice. These data are presented in a flow chart in Fig. 1.

The girls fall into two subgroups: those who tried to avoid a pregnancy—73%—and those who wanted to get pregnant—27%. In the former group, 91% had a general awareness of the existence of birth control, for example, the "pill," information they had come by accidentally through hearsay; 43% had specific knowledge which they obtained after they had made a *deliberate* effort

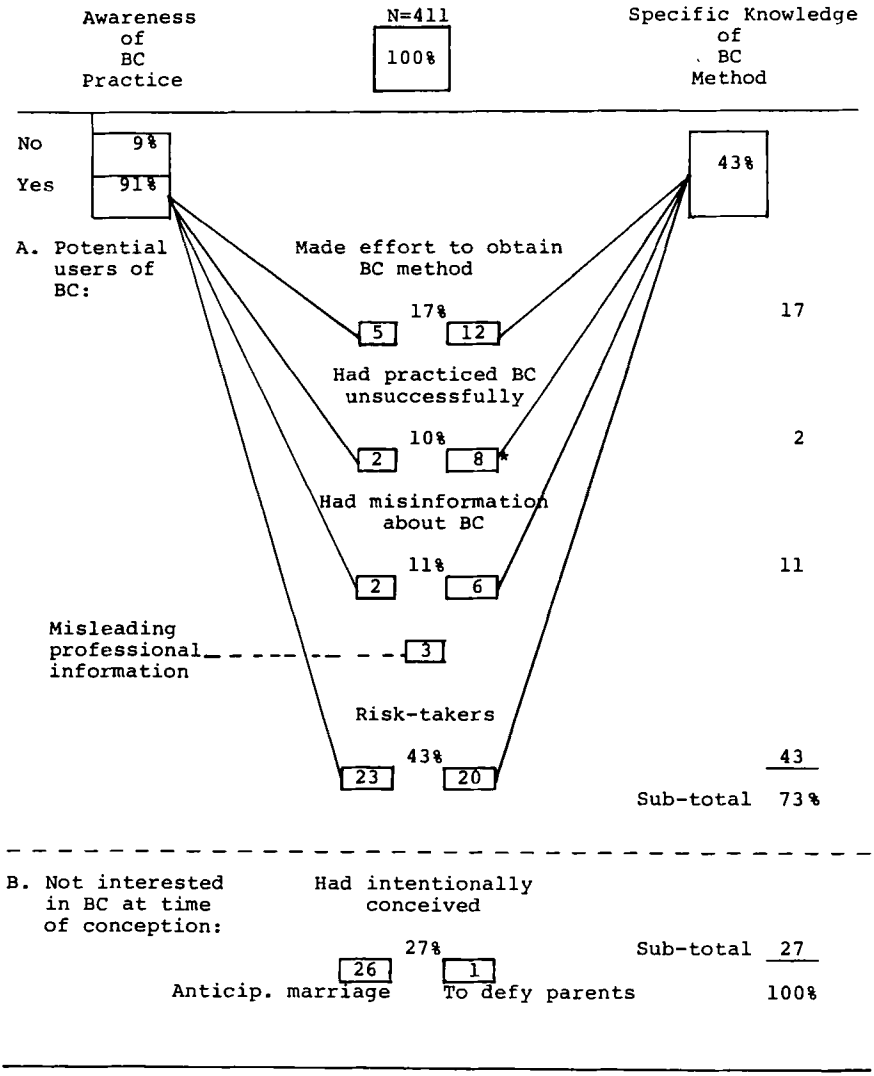

Fig. 1. The unmarried sexually active adolescent girl and birth control: discontinuity in the conversion of knowledge into action. An asterisk (*) denotes the following: Made effort to obtain BC method, and should be excluded in adding up percentages.

to speak to someone who had used the method, or to someone who was an instructor or had professional qualifications, thereby vouching for the accuracy of the information.

Those who intended to avoid a pregnancy failed for a number of realistic-external and psychological-internal reasons. Only 17% made an effort to obtain contraceptive methods, and 10% actually and unsuccessfully had used some method. Of these 10%, four-fifths had tried to obtain such a method in a clinic. A further 11% got pregnant while thinking they would avoid a pregnancy. This fraction is made up of three distinct groups:

1. The first group (2%) were not aware that they had been misinformed. For example, they assumed that they were safe because they had not conceived for an entire year or that unless they had an orgasm they would not conceive and by avoiding a climax they were protected. Others were using "Norforms," a cosmetic suppository which, in its advertising, suggested but never explicitly claimed to be a spermicide.
2. The second group (6%) held beliefs (knowing full well that they were not based on evidence) such as that douching after relations would provide protection or infrequent intercourse would not result in pregnancy. They also believed that the practice of rhythm would protect them despite very irregular periods. This group had been exposed to accurate knowledge but had discarded it. In this group, a further 3% became pregnant because of misleading professional information. For example, one was told, because of no visible signs of a menarche, that she did not ovulate and therefore could not conceive. Or, on the basis of a superficial examination, they were told by the physician that they could not get pregnant and to dispense with contraceptives.
3. Finally, 43% of the girls were risk-takers. On being asked why they did not use contraceptive protection, they answered, "I did not think I would get pregnant" or "I took a chance."

The full distribution of the percentages of "awareness" and "knowledge" of contraception is not shown in Fig. 1, as this would impair its comprehension and would be of no value for the data analysis.

DISCUSSION

In a previous paper on abortion patients, all references to a quantitative distribution were omitted because of the constantly changing patient population (Cobliner *et al.*, 1973). This fluctuation still persists and seems to be a world-wide phenomenon at the present time (World Health Organization, 1972).

However, with regard to the vicissitudes of contraceptive efforts, the percentages of the abortion patients are virtually identical with those of the 150 single girls who were carrying their pregnancy to term. Under these circumstances, a limited release of figures seems now appropriate, and in Fig. 1 our three samples were merged.

Two patient categories in Fig. 1 merit further attention.

Among the 11% who became unintentionally pregnant, because they were misinformed about their risks of getting pregnant, 2% had held on to an erroneous belief, without concrete knowledge. The firmness of their belief, and its patent irrational quality, borders on superstition and marginal thinking. Six percent in the same category had been exposed to concrete knowledge about contraceptive methods, which they dismissed. They represent a category of patients who had knowledge without belief. The two patient subgroups exemplify the working of two opposite psychological mechanisms, *belief without knowledge* and *knowledge without belief,* which are well known in the clinical literature and which were first described decades ago (Lewin, 1939). Both are a daily phenomenon on the political scene.

The 43% risk-takers represent yet another psychological mechanism. "I did not think I would get pregnant" or "I took a chance" is a probabilistic appraisal of risks widely resorted to *visa-à-vis* all kinds of danger, including bodily harm, disease, and also applying in business practice.

As a protective psychological mechanism, it is closer to the conscious layer than unconscious denial, and is commonly practiced to make life more bearable. The frequency of the explanation–43%–reveals an absence of planning and is not associated with any manifest emotional difficulty. It is not correlated with the level of the given adolescent's education, a fact that is in agreement with some recent findings (Fujita *et al.*, 1971).

This absence of planning is paradoxical insofar as the group of girls requesting abortion is concerned. They were sexually active, were aware of the risks involved, but never bothered to protect themselves against an unwanted pregnancy. But as soon as they became aware of their pregnancy, they were galvanized into defensive action. The explanation of such contradictory bearing seems to have been provided by a very recently formulated hypothesis of the noted Swiss epistemologist, Jean Piaget (1970a).

In a lecture at Columbia University in 1968, he made a distinction between two levels or kinds of thinking. The first is *figurative thinking,* the second *operative thinking.* Figurative thinking is that which is essentially set in motion by sensory input; it apprehends states and situations.

Applied to the present topic, we suggest that when our adolescents get pregnant, they are being constantly reminded of their state by physical sensations, and therefore they will mobilize all their resources and overcome obsta-

cles, inhibitions, and fears to deal with a pressing situation, because it is ubiquitous and continually forced into their plane of awareness. In this case, figurative thinking is good enough to result in adaptive action.

The hallmark of operative thinking is anticipation. This type of thinking transposes future situations into the present and transforms reality, so that the imagined future constantly mobilizes in us the needed resources for actively dealing with contingencies that lie far ahead which we conjure up in our minds. In cybernetic terms, figurative thinking depends on feedback, and operative thinking constructs models of action and subsequently implements it before the situation materializes. Operative thinking relates causes to effects and implements action in terms of means and ends. It is obvious that any form of birth control practice, except the intrauterine contraceptive device, is predicated on operative thinking.

A vast number of experiments over the years with children and adolescents on spatial motions and those associated with the passage of time support the existence of the two kinds of thinking. They also show that operative thinking supersedes figurative thinking in many areas and, in general is associated with superior adaptation of the individual (Piaget and Inhelder, 1969; Piaget, 1970b).

We submit that adolescents and many other persons have not, as yet, fully reached the stage of operative thinking. In order to influence them to practice birth control, constant and effective stimuli that act on their imagination, like those employed in cigarette advertising, for example, will set up necessary feedback loops for action, namely, contraceptive practice.

The interview data presented in the table referring to adolescent pregnant girls, the majority of whom come from less than affluent families, invite comments on two issues:

1. What has been added to our understanding of the adolescent out-of-wedlock pregnancy?
2. What are the wider implications for the psychology of the contemporary adolescent?

The psychiatric and clinical psychological literature has been concerned with the problem of out-of-wedlock pregnancies ever since it assumed alarming dimensions (Cobliner, 1970). The notion that the phenomenon affects only girls of low socioeconomic status, low mentality, and promiscuity was discarded as compelling cumulative evidence refuting it began to appear (Kinch and Kruger, 1970).

In her review of adolescence, prepared under the auspices of the Joint Commission on Mental Health of Children, Josselyn (1971) describes the complexity of causes determining adolescent sexual activity, but she does not take up adolescent out-of-wedlock pregnancy as a separate subject. According to her,

much of adolescent conduct that appears now objectionable to the adult community may have the quality of a trial run rather than that of acting-out; sexual activity of the unmarried should no longer be labeled as delinquency.

Helene Deutsch (1967, 1969) states, in her recent study of urban, single adolescent girls, that adolescent out-of-wedlock pregnancy of school girls is now a mass phenomenon, having a compulsive character, and as such would not be responsive to preventive education. The only systematic psychiatric study specifically concerned with adolescent out-of-wedlock pregnancies that terminated in abortion, and which was carried out after easing of abortion laws, exemplified existing psychodynamic formulations on the subject (Schaffer and Pine, 1972).

Three psychological studies concerning adults, utilizing psychometric techniques, offer new perspectives on the subject of failure to use contraception to prevent unwanted pregnancies. Keller *et al.* (1970) found that the absence of planning capacity, as measured by a sentence completion test, was the cause of an unwanted pregnancy in ten couples, while ten control couples with high planning scores on the same test had avoided it. The sample is too small for the technique to permit a valid conclusion.

Rovinski (1972), who administered the Porteus Maze test to 27 pregnant women who had unintentionally conceived, documents that their failure to use an available contraceptive was linked to impulsivity.

Finally, A. P. MacDonald (1970) could confirm, on a sample of 508 undergraduate students, that use of birth control was correlated with a belief in internal control and failure to use it with that of external control. The concept of locus of control was first suggested by Rotter (1966). He divided people into two groups with regard to their belief about their control over their respective destinies. Those who believe that their destinies are controlled by chance, fate, or powerful others are labeled "externals." "Internals" are those who believe that they can exercise some control over their destinies.

The psychiatric pronouncements on adolescent sexuality just cited do not seem to suggest any immediate practical steps that could contain the epidemic of out-of-wedlock pregnancies by masses of healthy girls. The psychometric data which constitute a novel approach–impulsivity and belief in external control–concern single, established personal attributes.

This study is essentially concerned with aspects of action–the practice of birth control or its absence–and its forerunners–awareness, knowledge, and seeking methods. It covers an episode in the adolescent's life, a dynamic sequence rather than an established disposition. It has been suggested by several colleagues that there is a certain similarity between, if not identity of, figurative thinking, impulsivity, and belief in external control which calls for clarification. This can best be done with an example:

There are three professionals whose work around the clock depends on a well-working typewriter. The figurative thinker uses his typewriter every day

without ever having it checked, knowing full well that one day it will need an overhaul, but he never acts on his knowledge. One day, the typewriter indeed breaks down, and he loses an important assignment. The impulsive person finds, as he is about to start an important assignment, that his typewriter has jammed. Although he knows full well that the typewriter could be repaired in a matter of hours, instead he smashes it on the floor, being enraged. The person believing in external control assumes that no matter what he does the typewriter will break down one day just when he is in the middle of an assignment. And so he neglects to have it periodically checked.

The psychometric assessments of the failure to use contraceptives do not suggest any countermeasures on the collective level that would stem the tide of adolescent out-of-wedlock pregnancies, while our own data do suggest direct preventive action.

For each item listed in Fig. 1, specific countermeasures can be devised. Dissemination of knowledge on birth control methods ought to be coupled with a systematic effort to eradicate the misinformation and the false beliefs now held by an appreciable portion of adolescents–for example, that the IUCD inevitably causes infection, perforation of the uterus, infertility, and frigidity, and that the unavoidable long-term effects of the pill are cancer, blood clots, strokes, and loss of libido.

Figurative thinking, resulting in nonpractice of birth control, can be overcome by ubiquity and frequency of information input in places where adolescents congregate, thus creating a minimum of societal conflict. Clinics exclusively serving youngsters would insure not only availability of birth control methods but also their actual delivery, a fact that is documented in a recent survey (Cobliner, 1973).

These measures suggest that the most promising effort to solve the problem of adolescent out-of-wedlock pregnancies at this juncture lies in dealing with the *peripheral loop* governing adolescent behavior, namely, knowledge, valuation, and action. Presently, most preventive efforts aim at influencing the adolescent's *central* circuit, namely, unconscious and conscious motivation, personality, attitudes, and their interplay. These are controlled by needs, desires, and defense mechanisms (Cobliner, 1955). It was shown in the foregoing pages that the links in the peripheral loop, knowledge, valuation, and practice of birth control, that is, action, are governed by conscious psychological mechanisms. It is likely that additional psychological mechanisms in the peripheral loop may be uncovered if one could see adolescents for several sessions, instead of a single one, and this would be possible in the setting of a clinic exclusively serving adolescents.

The interview records with more than 400 urban adolescent girls would seem to indicate that adolescents prefer learning by actual *experience* rather than through academic channels, such as reading, lectures, and films, to acquire

knowledge. This is particularly true of sexuality. This would be in agreement with Josselyn's concept of trial run. Why this should also concern birth control, which is a rational technique, has still to be uncovered.

It is submitted that, in the current state of flux, of societal transformation, of rapid valuation changes, our knowledge on adolescent psychology can be widened by an exploration of the adolescent's "external loop" by the modes and dynamics of his social interaction and his approach to and response to action and its valuation. This would effectively complement our present insight into intrapsychic dynamics.

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