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ABORTION AND COLLEGE WOMEN: A PSYCHOSOCIAL STUDY

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ABORTION AND COLLEGE WOMEN:

A PSYCHOSOCIAL STUDY

by

THOMAS L. GIVLER

**A dissertation submitted to the Graduate Faculty in
Social Welfare in partial fulfillment of the requirements
for the degree of Doctor of Social Welfare, The City
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Abstract

**ABORTION AND COLLEGE WOMEN:
A PSYCHOSOCIAL STUDY**

by

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Adviser: Professor Irwin Epstein

This study explored the psychosocial adaptation of 16 college women to the experience of unplanned pregnancy and abortion. Subjects were interviewed in the weeks following the diagnosis of the pregnancy, two weeks following the abortion, and, finally, three to six months later using a focused interview format. Analysis of psychosocial adaptation achieved in the post-abortion period revealed four patterns of psychosocial functioning: those who improved markedly; those who returned to the pre-pregnancy level; those whose functioning was impeded to some extent by thoughts and feelings related to the pregnancy; and those whose functioning declined markedly. Four subjects fell in each category.

These findings support the conclusion that the experience of unplanned pregnancy and abortion stimulates a crisis in the psychological development of college women. The crisis appeared to be marked by two consecutive stages related to acknowledging the reality of the pregnancy and its psychological integration. A subject's negotiation of these stages and eventual psychosocial adaptation appeared to be related to her level of psychological differentiation from her family of origin and the quality of

her investment in her sexual partner. Those who showed the best or worst outcomes tended to have difficulty in psychological differentiation from their families and to have had difficulty in pre-pregnancy psychosocial functioning. The others appeared to have achieved a greater degree of differentiation from their families and to be working on the negotiation of intimate relationships. For these subjects, the degree of psychological investment in the sexual partner appeared to be the dominant issue. Those who appeared to experience the pregnancy as a product of love appeared to need an opportunity to work through a grief reaction.

Implications for program planning in college health services stressing differential assessment and intervention were discussed.

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CHAPTER I

INTRODUCTION

The purpose of this project was to explore the psychosocial impact of unplanned pregnancy and abortion on college women to inform recommendations to a college health service seeking to improve its services to the pregnant students. It grew out of the physicians' and nurse practitioners' wish to improve their services to pregnant students by responding more sensitively to students' psychosocial needs and developing ways of identifying those students in need of additional supportive services. Their concern provoked question about how to develop knowledge in a way that would be of use to this college health service and others providing pregnancy and abortion services to this population.

The Medical Staff's Problem

Discussion of student pregnancy in a health service staff meeting in January, 1983 revealed that the medical staff (physicians and nurse practitioner) who worked with pregnant students in the health service of a private women's college in New England were dissatisfied with the services they offered. Although gynecological services represented about one quarter of all visits to the health service and about 40 students a year had positive pregnancy test, all of which within recent memory had been terminated by therapeutic abortion, the staff knew little about impact of the experience of

unplanned pregnancy and abortion on the students. They suspected that it was a psychologically significant event. They had the impression that some students managed the experience well whereas other students had significant psychological difficulty following the abortion but they had no systematic data on the scope or frequency of those reactions. They felt frustrated in their efforts to refer students to the counseling division. They thought that some students would benefit from using the services of the counseling division, but were aware that students rarely followed through on their referrals.

The frustration stemming from this lack of knowledge led to variability in the procedures used by the medical staff in dealing with pregnancy testing and heated debate about how to be most helpful. For example, when informing students about the results of pregnancy tests, some staff members required students to come in for an appointment to find out the test results whereas others did not, revealing the results by telephone. All staff members offered students an appointment to discuss plans for the pregnancy if the results were positive or for birth control if the results were negative.

This procedural disagreement appeared to reflect differences within the staff regarding the priority of different aspects of policy. Those who required students to come in for an appointment to find out about the test results placed a high priority on assisting students with informed decision-making regarding reproductive health. They saw the occasion of a pregnancy test as an opportunity to discuss and advise on reproductive health which should not be missed. Those who provided test results by telephone placed a high priority on student autonomy in decision-making

including the decision to seek advice on reproductive health. This group also seemed particularly attuned and responsive to student sensitivity related to discussing matters of reproductive health and were reluctant to set expectations which students might experience as intrusive.

Another area of disagreement related to the most therapeutic method of presenting the test results. Some believed it was important to ask the student whether she hoped the test was positive or negative prior to telling her the results. This question, common in obstetric practice, has the purpose of underlining the physician's support for the woman's right to have any feeling she might about the pregnancy, regardless of her marital status, and to set the stage for a discussion of the test results based on her feelings. Others felt that among a population of predominantly single, college students, beginning the discussion of test results with this question was experienced by the students as demonstrating a lack of empathy which interfered with the development of a trusting relationship.

While these differences in procedure reflect some differences in philosophy concerning how to best implement health service policy, both sides shared the perception that the psychosocial impact of unplanned pregnancy and abortion was not adequately understood or dealt with by the existing policies and procedures. They felt that further study of the psychosocial impact of unplanned pregnancy on college students was necessary to develop improved services to pregnant students. It was hoped that careful study of student's reaction to positive pregnancy tests and later psychosocial adaptation would contribute to the development of improved services, including strategies for assessing which students were at-risk

psychologically as a result of the experience and which were not, as well as procedures for mobilizing supportive services for the former.

College Policy in a Turbulent Environment

Sweeping social changes in the last twenty years have brought about radical changes in the attitudes and practices related to sexuality and pregnancy in college health. The health service staff's uncertainties with regard to procedures for pregnancy services reflect this turbulent social environment in which college health is practiced. Twenty years ago, the student who became pregnant while unmarried faced immediate expulsion from the college if her pregnancy came to the attention of college officials. If the student wished to terminate the pregnancy by abortion, she could only find a legal abortion by going to another country or, in states with the most liberal abortion statutes, by proving to a panel of physicians that continuing the pregnancy would endanger her health. The option of illegal abortion was expensive, exploitive and, when performed by unqualified personnel under unsanitary condition, dangerous.¹

The congressional decision in the early 1970's to lower the age of majority to 18 from 21 led the college to decide to cease acting in loco parentis. This decision fundamentally altered the college's stance with regard to the character of its responsibility for students in general, and with regard to health service policy related to sexuality and matters of reproductive health in particular. Bernard (1975) notes that previous to this

¹For an account of these conditions, see Ball (1967).

change society was pre-occupied with protecting the virginity of young women:

Chaperones, restrictions, a thousand little rules of etiquette were devised to keep the girl's virginity intact.... In our society it would not have been absurd to label the stage in a young woman's development between ... 16 and 20 as the "stage of virginity protection. (Bernard, 1975, p. 244)

The college gave up the role of guardian of its student's virginity. The previous extensive supervision of students' behavior were abolished and decisions about sexual morality became the responsibility of the student, not the college. The health service took on the role of advisor with regard to reproductive health, and advocate for responsible sexual behavior, including the use of birth control for sexually active students who did not want to become pregnant.

The 1973 Supreme Court decision striking down legal regulation of abortion brought about further changes in health service policy. It made abortion services a safe, readily available option for college women. As a result, the health service was able to assist students who had an unplanned pregnancy in arranging to terminate the pregnancy. These changes in the legal context of college policy made it possible for the health service to offer a full range of reproductive services, including education regarding reproductive health, assistance in making provisions for birth control for those students who decided to become sexually active, pregnancy testing for those who feared they might be pregnant, and assistance in arranging an abortion as the birth control measure of last resort for those who found themselves with an unwanted pregnancy.

The college student of the 1980's who has an unplanned pregnancy is faced with a radically different social context from that faced by the student twenty years ago. She encounters less social stigma related to sexual activity, can turn to the college health service for medical confirmation of the pregnancy and counseling with regard to how she plans to deal with it, and has ready access to inexpensive and safe abortion if she chooses. Thus, she is able to make her decision about continuing the pregnancy based on her assessment of what will best serve the interest of her future development.

From the point of view of a student health service concerned with safeguarding students' health and promoting healthy physical and psychological development, the current circumstances constitute a dramatic improvement over those of a generation ago. These changes in the social context surrounding college women's sexual activity, however, challenge us to develop strategic approaches to meet current student needs through understanding the psychological impact of this changed context and its potential to pose new hazards to student development. It raises two specific questions. What is the impact of the experience of unplanned pregnancy and abortion on the psychosocial functioning of today's college women? If there is a range of responses as the health service staff suspect, are there indicators of these differences which could be assessed during the medical contacts related to the diagnosis and planning for the pregnancy which could be used to as the basis for providing supportive services to those at risk?

Literature Review

The Psychological Development in the College Years

The college years, roughly ages 18 to 22, is the phase of psychological transition from the adolescent phase of development and the beginning of young adulthood (Arnstein, 1980). The entering freshman can be expected to be in the phase of late adolescence. By the time of graduation, the student who does well developmentally can be expected to be solidly on the way to adulthood. Psychological development does not always march in lock step with chronological age, however. Depending on the adequacy of prior development, students in the college years may be functioning psychologically at the level of middle or even early adolescence (Hatcher, 1973). Similarly, college seniors frequently experience themselves as psychologically unprepared for adulthood.

Erikson (1959) described this passage in psychological development as the phase of identity formation, a period of consolidating the achievements of development through adolescence which is the necessary foundation for psychological adulthood. He characterized this phase of identity formation as "a normative crisis,... a normal phase of increased conflict characterized by a seeming fluctuation in ego strength, and yet also by a high growth potential" [emphasis in the original](p.116). The achievement of a sense of sexual identity and the capacity for intimacy and the formation of stable affectional bonds are seen as critical parts of identity formation.

Arnstein (1980) argues that the key to the development of the sense of identity during this transition is emancipation from the family of origin. The emancipation of which he speaks is psychological, not necessarily geographic, although he notes that physical separation often seems to

further this process. He states that the process of making independent choices -- in matters as mundane as independent self management (when to eat, study and sleep, or how to manage housing and laundry) as well such significant choices as of career or college major -- is one arena in which the sense of emancipation is played out and the sense of identity formed. The exploration of emotional relationships with peers and sexual experimentation is another significant arena for the development of identity.

Thus, it seems likely that an unplanned pregnancy will be a psychologically charged event during this transition in particular. It results from exploration of intimate relationships and requires the exercise of choice. The meaning may differ depending on where the woman is in the process of developing intimate relationships and consolidating a sexual identity; it may be the result of an experimental sexual relationship (Monsour & Stewart, 1973) without a significant emotional involvement for some women whereas for others it may result from a significant relationship in which the sense of sexual identity and capacity for affectional bonds have been forged. The magnitude of the choice involved in deciding to continue or terminate the pregnancy may differ also according to the significance of the relationship.

Crisis Theory and Abortion

Crisis theory maintains that psychological crises are periods both of danger and opportunity. They are times when the usual stable equilibrium which marks the organization of the personality is disrupted for a limited period of time, usually from one to six weeks. A new equilibrium will be

re-established at the end of the period. The level at which that new equilibrium is established is expected to be relatively enduring, for better or for worse. Crises are a danger to the extent that new equilibrium is established at a lower level of functioning than that which preceded it. They are opportunities in so far as the new equilibrium is established at a more advanced level of functioning. It may also be re-established at a level similar to that which preceded the crisis (Rapoport, 1965). Thus, crises are marked by two features: a period of psychological disequilibrium and variation in the eventual resolution of the crisis state.

Rapoport and Potts (1971) argued that unplanned pregnancy presented a potential crisis for young women because of its impact on the tasks of identity formation related to the achievement of sexual identity, the capacity for intimacy and stable affectionate relationships. They defined a crisis as:

an upset in a steady state, a period of acute disequilibrium, in which a person's habitual adaptive responses and characteristic problem-solving activities are not adequate to restore the equilibrium disturbed by the current stresses. The hazardous events or stresses that precipitate an individual into a crisis require a solution that may be novel for a person in relation to his [sic] previous life experience and normal repertoire of coping capabilities.... We define unplanned pregnancy ... as a ... hazardous event, which depending on the range of possible solutions, the presence or absence of coping capacities, and adequate social supports, may or may not result in a state of crisis. (Rapoport & Potts, 1971, p. 255)

Writing at the time when reform of the laws prohibiting abortion was being considered in many states, they argued that at least a part of the crisis inducing characteristic of an unwanted pregnancy related to the social consequences of pregnancy for young women, not the pregnancy itself. They stated that "legal abortion makes it possible for an unwanted pregnancy not to become a crisis" (Rapoport & Potts, 1971, p. 257). They argued that legal abortion would make it possible for an unwanted pregnancy to become a growth experience for young women. In order for this to happen, however, the circumstances of the abortion would require "adequate psychological support, an absence of complicating iatrogenic factors ..., and the ability to manage key psychosocial tasks" (Rapoport & Potts, 1971, p. 260) such as the ability to accept the fact of the pregnancy, to weigh alternatives, take an active role in decision making regarding the pregnancy, and manage feelings related to self-esteem and loss.

The Sexual Revolution

The changes in health service policy during the 1970's were accompanied by marked changes in college women's sexual behavior during the same period which may well influence the developmental impact of unplanned pregnancy and abortion. Although a revolution in sexual mores has been discussed since the end of World War I, a careful study of the sexual behavior of college women in the early 1960's indicated that "the great change since 1900 in sexual behavior and mores has been in freedom of attitude and in petting" (Freedman, 1965, p. 46).

This study of the sexual behavior of college seniors at Stanford University was derived from a sample randomly selected from entering

students during their freshman year and interviewed several times a year since, revealed that only 22% had ever had sexual intercourse. Ten per cent reported that they limited sexual behavior to kissing, 27% allowed petting "above the waist", and 41% allowed petting which involved genital stimulation but no intercourse. Of those who reported having had sexual intercourse, 16% had intercourse only in the context of a serious relationship, and six per cent reported engaging in intercourse outside the context of emotional intimacy.

The author contrasted these findings with prior studies of the sexual behavior of college students. A questionnaire-based study of the sexual behavior of women who had been in college in the period between 1900 and 1910 revealed that only seven per cent experienced premarital intercourse. A later study of women who had been in college in the 1930's, reported that 25% had engaged in intercourse prior to marriage. Thus, the literature suggested a change in the frequency of premarital intercourse between 1900 and 1930 and a stability in the frequency of premarital intercourse between 1930 and 1965.

A dramatic change in the frequency of at least one experience of sexual intercourse among college women occurred between the early 1960's and the late 1970's. For example, both Oswalt (1974) and Murphy, Dazzo, Yost, and Parelius, (1981) found that about two-thirds of the college women who responded to their questionnaire-based studies reported having had sexual intercourse. Dorman (1981) reported that of all students who sought his medical advice for any reason (not necessarily gynecological) at the

Stanford University health service within a six week period in 1979, 76% were sexually active.²

Freedman (1965) reports attitudes toward sexual behavior among his subjects which may have laid the foundation for later changes in sexual behavior. He notes that the reported inhibition against sexual intercourse was based on a personal moral code (fears of pregnancy or a wish to be a virgin when they married) which was not based on religious belief or abstract moral principle. Most of the seniors in his study were reluctant to condemn other women's decision to engage in intercourse.

Oswalt's study (1974) of the women at Skidmore College was based on a large, random sample with a high participation rate. Every tenth female student was recruited for the study (N=180) and 90% of those recruited participated. Oswalt (1974) reported sexual activity by year in college. The percentage of women who had had at least one sexual experience increased with number of years in college from 42% of freshmen to 87% of seniors. Thus, comparing Freedman's 1965 finding that only 22% of senior women at Stanford were non-virgins with Oswalt's report just nine years later of 87% rate of non-virgin status suggests a dramatic change in sexual behavior among college women.

These studies also suggest that while the standard of virginity among college women almost disappeared in practice among college seniors during this period, the waning of this standard did not lead to a dramatic increase

²His report includes graduate students and the spouses of graduate students which may contribute to the greater frequency of sexual activity he found in contrast to that reported by Oswalt (1974) and Murphy et al.(1981).

in promiscuity. While Freedman (1965) found six per cent of his sample engaged in sexual intercourse outside the context of emotional intimacy, Oswalt (1974) found that only five per cent reported having more than eight sexual partners, and Murphy et al. (1981) found that only five per cent reported that they were currently having sex with more than one partner.

These studies suggest that during this historical period sexual intercourse became a frequent concomitant to intimate relationships for college women but tended to be limited to such relationships. Oswalt (1974) found that 47% of the sexually active women reported having had only one sexual partner. Murphy et al. (1981) reported that 43.3% of the sexually active women were involved in a monogamous sexual relationship, 23.7% were dating but not currently engaging in intercourse, and 28% were not currently seeing anyone.

Studies suggest that the frequency of sexual activity among sexually active college women increased during the 1970's. Oswalt (1974) found that the average reported frequency of intercourse was between none to less than twice per month. Only five per cent reported having intercourse five or more times per week. Murphy et al. (1981) found that 47% reported intercourse frequency of one or more times per week and Rindskopf (1981) notes that 52% of sexually active women reported having intercourse five or more times per month.

Contraception and the College Student

This dramatic change in the frequency of reported sexual intercourse among college women, however, has not been accompanied by responsible

contraceptive behavior. Murphy et al. (1981) found that only 23 per cent of the sexually active college women and their partners

always used an effective method [of contraception].... One of the surprising results of the study was the poor effort of the ... college women to protect themselves from unwanted pregnancy. The effective methods women can use are very low on their list of methods actually used. It appears that unless her partner used a condom, women were unprepared and unprotected most of the time. Very few women (5%) added to their protection by using foam with the condom. [emphasis in the original] (p. 89.)

These findings are supported by other studies of the contraceptive behavior of college students. In her review of this literature, Rindskopf (1981) found that students reported taking no birth control measures or using an unreliable method (douching, withdrawal, or rhythm) at the time of first intercourse at rates ranging from 52% to 76%. Following the first intercourse, use of contraception improve but studies reported rates of failure to use a reliable contraceptive method ranging between 21% and 41% of the time. Contraceptive behavior appears to depend to some extent on the nature of the relationship. Failure to use a reliable contraceptive was reported in casual relationships 42% of the time, whereas such failure declined to 18% among couples living together. Rindskopf (1981) notes that these studies do not distinguish between reliable use of an unreliable method and unreliable use of a reliable method. Thus, a student who carefully monitors her menstrual cycle and limits intercourse to the "safe" periods according to the rhythm method may have better protection than the

student who uses oral contraceptives irregularly or is unskilled in positioning her diaphragm.

Dorman (1981) reported an increasing rate of unplanned pregnancy among college students at Stanford between 1973 and 1980 which was associated with increased reliance on "coitus dependent" methods of birth control, methods which must be implemented at each episode of coitus (condom, foam, or diaphragm), and a decline in the use of "coitus independent" methods of birth control (oral contraceptives or an intrauterine device). He attributed this trend to increasingly frequent reports in the popular literature of the risks associated with the birth control pill and IUDs which do not report on their greater potential for failure to prevent pregnancy, especially among young, relatively inexperienced users.

Reasons for Poor Contraception

Two theories are traditionally proposed to explain the failure to contracept. The first is based on the access to contraception and education in its use. The assumption is that if women who do not wish to become pregnant have access to a reliable method of contraception and education in its use, she will protect herself. While this theory may have accounted for a substantial portion of unplanned pregnancies in the past, the success of the family planning movement in making birth control education widely available and the ready access and low cost of effective birth control measures since the 1960's make this an increasingly unlikely scenario. Among college students, degree of contraceptive knowledge is not a good predictor of contraceptive use (Rindskopf, 1981).

The second traditional theory used to explain ineffective contraceptive practice is derived from psychodynamic theory and proposes that if a pregnancy is unplanned, it must be the result of unconscious wishes to become pregnant. This explanation has become harder to maintain in the light of the frequency with which college women expose themselves to the risk of unplanned pregnancy. To continue to hold this view, one would need to believe that a very high percentage of college women are dominated by an unconscious wish to become pregnant which conflicts with the conscious intention to delay pregnancy they usually express so clearly. Thus, while access to contraception and education in its use or unconscious motivation may play a role in some unplanned pregnancies among college women, it seems unlikely that either theory is sufficient to explain the frequency with which fail to contracept.

Luker (1975) offers a more credible theory. She argues that the sequence of events that lead to an unplanned pregnancy is neither ill-informed nor irrational but is based on a logical decision-making process which, although unwise, is not unlike other decisions to take a risk such as skiing or smoking. She notes that the decision to engage in sexual intercourse among relatively young unmarried women is usually decided in a sexual context and the reproductive consequences of that decision are usually experienced as relatively distant, just as the risks of breaking a leg are to the skier or of lung cancer to the smoker.

Luker (1975) argues that the decision to engage in this risk-taking behavior is based on an analysis of the psychological and social costs of contraception and benefits of pregnancy. For example, for the sexually inexperienced young woman the costs of defining herself as sexually active,

going to a doctor to be fitted for a diaphragm or to get a prescription for oral contraceptives, and giving up wishes to yield herself in a moment of passionate spontaneity may be relatively high. Similarly, for the woman who decided to take oral contraceptives in the context of a loving relationship may be reluctant to continue to take them when the relationship terminates and may be unprepared, therefore, when she initiates another relationship. Similarly, the various side-effects of birth control methods pose another set of costs which may contribute to a decision to take a reproductive risk. She notes that "the overall risk of sickness and death associated with abortion in the United States is roughly that of birth control pills" (p. 142.).

She further argues that pregnancy may have some potential benefits such as proof of her fertility and womanhood, testing a man's commitment, or to punish parents which may contribute to a decision to engage in risk-taking behavior at a moment of sexual decision making. The woman may evaluate these risks and benefits differently when she discovers she is pregnant and is faced with a reproductive decision. This reassessment, however, is similar to that of the skier who reconsiders the wisdom of starting head first down a steep slope from the perspective of a person at the bottom with a broken leg.

Thus, the much discussed "sexual revolution" appears to have been accompanied by a dramatic change in the frequency of sexual intercourse in college women between the early 1960's and the late 1970's. While the birth control pill's promise of sex without risk of pregnancy may well have contributed to this social change, many college students engage in coitus without the protection of the pill or other reliable contraception, running a

considerable risk of unplanned pregnancy. While it is possible that contraceptive use will improve in time as these revolutionary changes becomes better integrated in the social fabric and the expectations of college woman, it seems likely that reproductive risk-taking can be expected for the near future, that this will lead to unplanned pregnancies, and that many pregnant students will want to terminate them.

While the social consequences of abortion are significantly less for college women than those of dismissal from college and early marriage which was frequently the lot of women who had unplanned pregnancies prior to this revolution, the experience of abortion is not without consequences. Gibb and Millard (1981) reported an increasing rate of repeat abortions which reached 23% by 1979 and noted that "a pattern of recidivism often exists which begins with the first and second abortion between the ages of 15 and 24 years and later increases to three, four, and five abortions as a woman progresses with age" (p. 417). Since it is likely that unplanned pregnancy and abortion is likely to remain a significant aspect of college health practice, it is important to examine what we know about the psychological impact of unplanned pregnancy and abortion.

The Effect of Abortion on Psychological Functioning

Review of the literature on the psychological impact of abortion reveals how little empirical knowledge we have. Legal regulation of abortion prior to 1973 created nearly insurmountable barriers to research, allowing personal bias and preconception to shape research results. In a major review of the literature on the psychiatric impact of abortion between 1935 and 1964, the authors commented:

It is sobering to observe the ease with which reports can be embedded in the literature, quoted and requoted many times without consideration of the data of the original paper. Deeply held personal convictions frequently seem to outweigh the importance of data, especially when conclusions are drawn. In the papers reviewed the findings and conclusions range from suggestions that psychiatric illness almost always is the outcome of therapeutic abortion to its virtual absence as a post-abortion complication. (Simon & Senturia, 1966, p.387)

In the late 1960's legalization of abortion in Colorado and New York and liberalization of the abortion law in California made the study of more representative samples of abortion seekers possible. One of the goals of these studies was to test the then still-prevalent assumption that abortion was a medical procedure with severe psychological consequences. Whittington (1970), Ford, Castelnovo-Tedesco, and Long (1971), Osofsky and Osofsky (1972), Notman, Kravitz, Payne, and Russell (1972), and Bracken, Hachamovitch, and Grossman (1974) conducted studies to determine patient reaction to abortion. These studies consistently found that most women did not have severe emotional reactions to abortion, either immediately following the procedure or on one year follow-up. Further, they found no evidence to conclude that abortion caused psychiatric illness. Indeed, to the contrary, when Ford and his colleagues studied the effect of the California law allowing broader interpretation of threat to the mother's mental health as grounds for legal abortion, they found that abortion improved the mental health of women whose applications for abortion were approved when compared with those whose applications were denied. The

exception to this finding were those abortion recipients who had a major mental illness prior to the pregnancy.

These studies served to discredit the pre-legalization assumption that abortion has severe psychiatric consequences or presents an emotionally disruptive experience for most women. This finding found further support in later studies (Adler, 1975). Interest in studying psychological reactions to abortion has declined in recent years. It appears that having laid to rest some of the distorted perceptions stemming from the pre-legalization period, research turned to other topics. This is regrettable as many important questions remain unanswered.

Foremost among them is understanding what circumstances influence the consistent, even though small, percentage of abortion recipients who do have an emotionally disruptive experience following abortion. For example, in their study of reactions shortly following the abortion procedure, Osofsky and Osofsky (1972) report that 10.5 per cent of their sample of 380 patients reported they felt moderately sad, 4.2 per cent felt very sad; 7.6 per cent said they cried a small amount, 8.2 per cent cried a considerable amount by their own report; 15.6 per cent reported feeling some guilt, 8.2 per cent reported feeling considerable guilt; and 7.2 per cent reported some anger at themselves and 1.5 per cent felt very angry with themselves and negative about their decision to have an abortion. Thus, while most of the abortion recipients were described as feeling happy (64.6%), looking happy (68.4%), reporting no guilt (76.2%), and feeling pleased with their decision to terminate the pregnancy, there is a group in this study whose reactions were more problematic. Notman and her colleagues (1972) note in their study which followed-up abortion patients six weeks and again six months

following the procedure: "after the abortion, the initial relief and even euphoria may be followed by a later affective shift toward depression" (p. 553). Ford et al. found that the most disturbed subjects in their study did not improve or got worse following therapeutic abortion. Bracken et al. (1974) found that single, never married subjects were significantly ($p < .0001$) more likely to have negative reactions.

This question may be even more important in the light of a review (Adler, 1976) of 17 follow-up studies on the psychological consequences of abortion. She looked at the rate of sample attrition, the percentage of the subjects in the original study who dropped out of the follow-up study. This is significant particularly if the attrition is not distributed evenly across the sample but is weighted toward a subgroup of the sample who share a common feature. Thus, if abortion recipients who have a positive reaction to their experience are less likely to return for follow-up than those who have a negative reaction, or vice versa, the results of the follow-up study will not reflect the reaction of the population reliably. She found sample attrition rates ranging from 13 to as high as 86 per cent. Because younger women and Catholics appear to be over-represented in this attrition and because both these characteristics predict greater likelihood of negative reaction, she concluded that follow-up studies may have underestimated the extent of negative reactions to the abortion experience.

This literature suggests that while abortion does not pose the degree of psychological hazard assumed prior to abortion reform, it does represent a hazard of as yet undetermined proportion for some women. The task of identifying who among abortion recipients are vulnerable to that hazard

and how to help them negotiate it as successfully as possible has not been a major focus of research.

One impediment to identifying which women are vulnerable to the hazard abortion may constitute stems from the failure in most studies to analyze abortion from a developmental perspective. It is likely that abortion will have quite different meaning to women at different stages of the life cycle. The 35 year old mother of two who decides to terminate an unplanned pregnancy because it would interfere with plans to resume her career declares an end to her childbearing years by having the abortion. The psychological meaning this event has is probably quite different from that experienced by an 18 year old college freshman who has an abortion to put off childbearing until she has made more adequate preparation for adult life. The failure to analyze data by age or life stage cohort may well have led to obscuring the developmental significance of abortion as it changes over time.

Only one study looked at the experience of college women. Monsour and Stewart (1973) studied 20 college women randomly selected from 102 women whose pregnancies were identified by a college health service and who elected abortion within a two year period. The sample was representative of the college population and was evenly divided by year in school. The subjects were interviewed an average of seven months following the abortion. They found no substantial change in the subjects' self perception, self image, or attitude toward child bearing and children. Noting that 15 of the subjects had no or infrequent contact with their sexual partner subsequent to the abortion, the authors concluded that the relationships were exploratory in nature, part of the subjects' effort to

acquire personal emotional knowledge about sex.

This study also examined the "contraceptive reluctance" of the 13 subjects who had not used contraception. They proposed that a "conspiracy of silence" with regard to sexuality in the family of origin led the subjects to feel that awareness of their own sexuality was equally taboo, leading to their difficulty in planning reasonably for sexuality. The subjects' reaction of abhorrence to the idea of telling their parents about the pregnancy was, the authors suggest, a further sign of their fear of revealing their sexual behavior.

While this study touches on developmental implications of an unplanned pregnancy and abortion experience for college students in their suggestion that the sexual relationships were experimental in nature and that contraceptive reluctance is related to taboos related to sexuality in the families of origin, it is handicapped by its failure to articulate the authors' views of psychological development during the college years.

Developmental Studies of Abortion

Only three studies attempted examine the consequences of abortion on the subsequent development of their subjects and to plot differential developmental courses for groups within the sample. Wallerstein et al. (1972) studied the post-abortion course of unmarried women between the ages of 14 and 22 who sought abortion through a Planned Parenthood agency within a three month period. The subjects were given a questionnaire at the time of their pre-abortion contact and interviewed five to seven months post-abortion and again fourteen months post-abortion.

This study found that the subjects fit one of four patterns. The first pattern, composed of 50% of the sample, were at or had surpassed their pre-abortion level of functioning on follow-up and had resumed sexual activity with contraception as well. A number of provocative findings about this group emerged. Nearly three quarters had experienced acute distress during the pregnancy, suggesting that degree of distress during the pregnancy does not predict post-abortion adaptation. A large majority experienced total inhibition of fantasy about the fetus as a baby. When such fantasies were present they were of moderate intensity and had faded completely by the time of initial follow-up. This suggested to the authors that a certain amount of "adaptive denial" may be necessary for successful outcome. Nearly a quarter of this group were only 16 or 17 years old, suggesting that successful developmental adaptation is not primarily related to age. On 14 month follow-up the abortion experience was characterized as a "closed episode" by the subjects in this group.

The second group showed moderate to considerable decline in psychosocial functioning five to seven months post-abortion. The subjects in this group were marked by a variety of specific symptoms such as difficulty concentrating, lowered self-esteem and maladaptive behavior such as a newly begun promiscuous pattern or infantile mode of relating to parents. A striking feature of the subjects in this group was continuing conscious pre-occupation with aspects of the pregnancy and abortion as well as an inability to consign the abortion experience to memory. During the pregnancy, the subjects experienced moderate to intense fantasies about the unborn child. None of those from this group seen in the second follow-up had been able to close the experience.

The third "group" was composed of one member. She had the abortion for reasons of poor physical health and was moderately depressed on follow-up. Although this client expressed a wish for counseling, she had not sought it.

The fourth group was composed of women who had histories of major psychological disturbance and long-standing marginal psychosocial functioning. They were chronically distressed and in continued poor psychological health following the abortion. In addition, they were "burdened by the open, unassimilated pregnancy and abortion experience which they seemed unable to integrate." (p.831) All the subjects in this group reported intense fantasies of keeping the baby and referred to "killing" the baby by abortion. These fantasies continued following the abortion. A large percentage of this group were sexually active without contraception on follow-up.

This study produced a number of suggestive findings. While 50% of the sample appeared to have mastered the abortion experience, time did not appear to heal the wounds of those who did not make a successful adaptation to the abortion experience relatively soon afterwards. None of the subjects in groups two, three and four improved on the fourteen month follow-up. Those who made successful adaptation were able to inhibit conscious fantasies about the fetus as a baby and, generally, the more active the fantasies, the poorer the post-abortion adaptation.

The youngest seven subjects, ages 14 to 17, tended to have more dramatic and severe symptoms prior to the abortion, although this did not predict outcome; three did well and continued to develop whereas four were

clearly thrown off their previous developmental course, threatening adult integration and self-esteem as a woman.

The findings of this study can only be taken as suggestive of patterns which further research may confirm because of the high rate of follow-up refusal. An attempt to follow-up 114 subjects in this study was able to produce only 22 women for the five to seven month follow-up despite vigorous efforts. Only nine of those 22 women permitted the 14 month follow-up. Wallerstein et al. suggest that since their study indicates that successful mastery of an abortion experience is predicted by the capacity to inhibit fantasy about the fetus, closing the experience may also be promoted by more or less conscious efforts to repress or deny the abortion experience, sample attrition on follow-up may be a sign of mastery for abortion patients. They propose, therefore, that their follow-up sample may have been weighted toward those experiencing difficulty. Whether the attrition in their sample is due to this or other factors is unknown. None the less, the potential for research to undermine some women's adaptative efforts to close the experience must be considered in the design of responsible research.

The second particularly suggestive study is that reported by Schaffer and Pine (1972). This study examined the experience of 24 pregnant adolescents under 20 years old who were interviewed prior to the abortion. Ten subjects refused follow-up visits, 14 were seen for between one and four times post-abortion. It is unique in the clarity and detail of the premises drawn from psychoanalytic developmental psychology on which it was based. The authors believe that "powerful and complicated psychological issues would be raised by pregnancy and abortion however

successfully or unsuccessfully the events were handled , and it was those issues we sought to address" [emphasis in the original](p.512). The specific psychological hypothesis was that:

The pregnancy and abortion bring to the fore the conflict between being mothered (with arousal of passive longings for the pregenital mother-of-infancy, longings active in any case in adolescence) and being a mother (to one's infant, to oneself, to others, with new identifications and the opportunity to make amends for the past, to attempt to begin life anew). [emphasis in original.] (Schaffer & Pine, 1972, p.511)

Three constellations in their subject's reactions which follow these theoretical assumptions were found. One group of subjects showed a regressive constellation in which they turned passively to mother to discover the fact of the pregnancy and to make plans for how to deal with it. A second group was seen as finding a progressive adaptation, using the abortion experience to solidify a sense of self as caretaker. A third group seemed to fall between the clearly regressive and clearly progressive adaptation. This group's response was much more dependent on external factors and support. It was this group for whom brief intervention, directed at tipping the balance of forces toward a progressive solution, was most helpful. Those headed toward a progressive resolution were seen as not needing intervention.

In discussing the subjects who refused further contact following the first interview, Schaffer and Pine (1972) found two bases for refusal. First,

some subjects felt they had revealed too much during the first interview. The interviewer had been impressed by the readiness of her subjects to talk about their experience in the initial interview. Even those who were initially sullen and suspicious opened up easily when confronted gently. The quality of their self-revelations, characterized as an "outpouring of intimate feelings, experiences, and fantasy material" (p.513), apparently left some subjects feeling that they had talked "too much" during the first interview. One subject was enraged after the abortion, saying that she felt "naked" and "terrible" after the first interview, and wanted the record of the interview destroyed.

Second, other subjects felt they preferred to deal with their experience privately before they could talk about it, as reflected in the statement, "I just need time to think about things," or "I don't want to talk about it now. I just want to forget" (Schaffer & Pine, 1972, p.514). This second set of reasons for not following through with the research may have been an indicator of the adaptive denial Wallerstein et al. (1972) described as a feature of those who were able to close the abortion experience successfully. It may also be that the subjects who reacted negatively to how much they revealed in the first interview did so because they experienced the "outpouring" of feelings as undermining of their efforts to maintain an adaptive degree of denial.

This study has two important implications for the design of research into the experience of unplanned pregnancy and abortion among college women. The first is the importance of developing a framework for assessing which pregnant students will benefit from intervention and which students will do well without intervention. It is the impression of those

who work with pregnant college students that a great many handle the experience adaptively. Health service personnel may not intervene actively enough in offering supportive services to those at risk for maladaptive resolution based on an assumption that all students manage the experience well. Thus, finding a mechanism which identifies at-risk students would constitute a significant contribution. The second is the importance of designing the study to assure that the subjects' adaptive efforts are not undermined by the study procedures. The potential for some subjects to reveal more about themselves than they feel is helpful should be guarded against because it may undermine adaptive denial used in the service of closing the abortion experience.

Gilligan and Belenky (1980) studied the impact of abortion from the perspective of Piagetian developmental psychology. This branch of psychology examines "how the structure of thought shapes the experience of on-going events and how experience in turn gives rise to new modes of understanding"(p.69) in contrast to conventional psychology's emphasis on the impact of the past on the present. Piaget initiated this line of investigation through his studies of how the structure of children's thought influences their perceptions. Kohlberg extended this line of investigation to examine the structure of thought used by adolescents and adults in making ethical choices, hence the name "moral" development.

Central to this study was the hypothesis that the impact of actions taken can influence these structures of thought. Existing structures of thought can be eroded by action which is at a lower level of moral development. Similarly, progression to a more advanced structure of thought may be precipitated by dealing with an ethical decision with a

course of action at a more advance level than the current structure of thought. They studied women's thinking about continuing or terminating a pregnancy and compared it with those women's scores on Kohlberg's moral dilemmas to test this hypothesis.

They hypothesized that women would fall in three groups at the time they were deciding what to do about a pregnancy: a transitional group who showed more mature thinking in actual decisions than in their judgements on Kohlberg's moral dilemmas, a stable group who showed no difference in structure of thought between real and hypothetical dilemmas, and an at-risk group whose thinking about actual dilemma was less mature than their thinking about hypothetical dilemmas. Further, they made the hypothesis that on one year follow-up the subjects in the transitional group would show increased maturity in moral judgements and improved life circumstances, those in the stable group would show no change in either area, and that those in the at-risk group would show regression in level of moral judgement and deteriorating life circumstances.

They interviewed 24 women between the ages of 15 and 23 years between the eighth and twelfth week of pregnancy who were considering abortion but prior to a definitive decision to determine the degree of harmony between the course of action the subject proposed to take and her level of moral development as determined by Kohlberg's scale for rating moral judgements. Twenty-one of the subjects were interviewed one year later using the same procedures and inquiring about the subjects' experience in the intervening year which was scored on a scale they devised to rate life experiences.

In general, the changes were in the predicted direction. Those in the transitional group showed progression in their moral maturity scores and life outcome scores. Those in the stable group tended to be functioning much as they had one year previously. The four subjects in the at-risk group were evenly divided between those who showed lowered levels of moral maturity and worse life outcome scores on follow-up (the predicted outcome) and those who showed the opposite (improved moral maturity scores and better life outcome scores). Noting that the two subjects whose scores had improved each had another pregnancy in the intervening year which they had resolved in the opposite way from the studied pregnancy decision, the authors proposed that the second pregnancy might represent a "return to a missed opportunity for growth" (Gilligan & Belenky, 1980, p.79).

Implications for Study Design

The literature is contradictory and does not give a definitive answer to the the health service staff's questions regarding the impact of unplanned pregnancy and abortion on the psychosocial functioning and subsequent psychological development of college women and how differences can it be predicted. Studies of pregnancy and abortion as a general phenomenon found that it did not appear to have a severe impact on most women, although young, unmarried women appeared to have the most difficulty. These studies did not use a developmental framework for analysing the impact of the experience and did not analyse the data age or developmental cohort. The three studies which examined samples of young women using a developmental framework found that the experience represented a complicated experience which was resolved differentially; some subjects

were able to turn it into a growth experience, as Rapoport and Potts (1971) suggested might be the case with legal abortion, whereas other subjects were unable to do so and had increased difficulty in psychosocial functioning and appeared to have increased difficulties in subsequent psychological development.

These developmental studies, while examining samples which overlapped the college-age group, did not look specifically at that age group. Their finding do lend support to the theory that successful negotiation of the psychological tasks of identity formation in the transition to adulthood during the college years is likely to be particularly vulnerable to the experience of unplanned pregnancy and abortion and that it represents a developmental hazard of unknown proportion. This suggests that the concerns of the health service staff were well-founded and the task of attempting to find ways of identifying those at risk in the interest of providing supportive services is justified.

The contradiction in the literature has several implications for study design. First, it suggests an exploratory research strategy designed to understand the experience at a phenomenological level with the goal of developing categories and concepts which will aid in understanding the subtle differences between subjects. Second, the contradiction suggests that the differences between subjects are relatively subtle and likely to be reflected in the nuances of the subject's experience as it unfolds over time. These differences are unlikely to be accessible through impersonal research techniques such as a questionnaire or one-time interview.

This suggests that the research technique most likely to gain access to these nuances is a series of focused interviews. Principles derived from

social work practice provide guidance to the use of the interview in this context. The first in the importance of developing a relationship. Social work clients tend to be most willing to reveal sensitive information about themselves in the context of a relationship which is marked by acceptance of the client, a focus on understanding the uniqueness of the client's experience, and a commitment to the needs of the client.

Emphasis on the relationship and the primacy of attention to the subject's needs may also help to combat the sample attrition which has marked most studies which have attempted to look at their subjects' experience over time. Social work practice has generally found that clients are also most likely to return for further service when they experience themselves as having a helpful relationship with the interviewer.

The literature, however, suggests that studying this issue is not without some risk. Both Schaffer and Pine (1972) and Wallerstein et al. (1972) found that some of their subjects were able to turn the experience to developmental advantage without intervention. Wallerstein et al. (1972) attributed this to those subjects' ability to maintain an adaptive level of denial. This suggests the possibility that some subjects may experience inquiry into their experience as undermining efforts to maintain adaptive levels of denial. The subjects in Schaffer and Pine's (1972) study who reported feeling that they had revealed too much during the initial interview lends credence to this view. If this is so, it suggests that some subjects may drop out of follow-up interviews as part of an effort to master their experience by putting it behind them, helping to explain the frequency with which abortion research subject refuse to participate in follow-up interviews.

This may be a particularly important issue among college students. As Arnstein (1980) points out, the process of making autonomous decisions is a major arena for forging a sense of identity. The potential for well-intended efforts to provide supportive services to students who are managing the experience independently to undermine inadvertently their experience of independent mastery needs to be examined. Likewise, the potential for research procedures to have this effect needs to be guarded against. Given the potential for conflict between research-oriented data gathering objectives and a subject's psychological vulnerability and need for support during an interview, data gathering objectives, therefore, should be subordinated to attending to the needs of the subjects in the service of both building and maintaining the relationship with that subject as well as protecting her development.

These risks associated with intervention have implications for the goals and methods of the research. As important as finding predictors of risk is finding ways to predict who will do well without intervention and how to assess risk while minimizing the potential to undermine adaptive processes. Thus, the goal of the research effort should be to develop non-intrusive procedures for delivering supportive services to those who need them without imposing on those who do not.

The literature also suggests three issues which appear related to success in managing this developmental hazard and which may be accessible to identification during the medical contacts related to testing for pregnancy, discussing positive results, and exploring a student's plan to deal with the pregnancy. They are as follows:

1. Activity versus Passivity. Schaffer and Pine (1972) found this dimension to be critical, not only in psychological functioning, but in the way their subjects dealt with the pregnancy. Thus, those most at-risk were those who were notably passive in perceiving the fact that they were pregnant and in making plans related to the possibility of pregnancy. Those at least risk were those who were took an active stance related to evaluating the possibility of pregnancy.

2. Fetus as a baby. Wallerstein et al. (1972) found that those subjects who spoke of the fetus as a baby were at greater risk for poor outcome following abortion than those who did not. This simple difference in use of speech was proposed to indicate ability to suppress conscious thought about the fetus as a baby, described as "adaptive denial".

3. History of Poor Psychosocial Functioning. Wallerstein et al. (1972) found that "histories of major prior (psychiatric) disturbance and long-standing marginal psychosocial functioning" (p. 831) tended to predict poor outcome.

Thus, despite its contradictions, the literature provides considerable guidance as to the questions to be explored, the strategy and methods to be used in that exploration, and issues to examine.

The next chapter describes the research setting, the methods used to gather data, and the sample. The findings are described in Chapter 3. It begins with an analysis of the subjects' post-abortion psychosocial adaptation, followed by an analysis of those factors in their pre-pregnancy functioning and reaction to the pregnancy and abortion experience which

appear related to that adaptation. The findings are discussed in Chapter 4 from the perspective of developmental psychology and crisis theory. Finally, Chapter 5 discusses the implications of this study for the delivery of health care services and the development of an intervention program directed at the psychosocial needs of pregnant college students as well as its implications for research methodology and further research.

CHAPTER 2

METHODOLOGY

The Research Setting

The college health service which initiated this research effort is a particularly advantageous site. The health service is designed to serve the broadest purposes of education. Its mission is not limited to the provision of clinical service but includes a commitment to health education and to fostering psychological development. The medical staff is committed to providing sensitive, high quality care to the students. Although busy, they are not so overburdened by demands for their service that they are unable to modify policy and procedures to better attend to their college patient's psychosocial needs.

Description of the Setting

The health service is housed in its own building at the end of a street in a corner of the campus near several dormitories. Its location separates it from the activity of the main campus. It is near student housing but screened by a small hill and several faculty houses. It is composed of two sections. The main part of the building houses the medical section where out-patient medical services are provided. This section also houses an extended care facility where non-acute in-patient services can be provided. The other section of the building, devoted to the student

counseling service, is reached by a separate entrance set back from and to one side of the main entrance.

The health service provides general medical services to a population of 2500 students. The professional staff of the medical section is composed of physicians, nurse-practitioners, and nurses. The professional staff of the counseling division is composed of a psychiatrist, and clinical social workers. While all services were under the direction of the Medical Director, in practice the two divisions operated semi-independently, the counseling division dealing with emotional problems and the medical division dealing with physical problems.

General Policies

The general policy of the health service is based on the premise that students are adults who have the right to make informed decisions with regard to their health care. The role of the service is to provide medical diagnosis and advice to inform the student's decision, and treatment, if the student wished. This policy applies to issues related to reproductive health. For example, the decision to become sexually active is seen as the student's choice. The role of the health service is seen as to provide information about sexuality, advice with regard to birth control, and assistance in making appropriate arrangements for birth control for students who request it. An educational program on human sexuality is provided annually in the dormitories to provide a forum for discussion of issues related to sexuality, to advocate the position that students who choose to be sexually active and do not want to become pregnant should use birth control, and to inform

students about birth control measures and the availability of birth control services at the health service.

Thus, while the student population at this college may not differ from others in their age group in terms of failing to associate their sexual behavior with its consequences through risking themselves in unprotected sexual activity, pregnancy on this campus occurs in a much more facilitative environment than is the case for their age-mates who have to rely on over-burdened and under-funded clinics. The interest and motivation of the health service staff in promoting student growth, their positive approach to sexuality, and student perception of the service's availability and facilitative stance makes this health service an ideal setting to study the impact of the experience of unplanned pregnancy and abortion on college women's psychosocial functioning and later development.

Needs Assessment Program

A plan was developed to study the reaction of students who had positive pregnancy tests at the college health service between September and March of the 1983-84 academic year. Its purpose was to gather knowledge from the perspective of the pregnant student to serve as the basis for recommendations to the medical staff for improving services to pregnant students. Thus, the goal of the needs assessment was to gather information about how students perceived the services they received, to assess the psychosocial impact of unplanned pregnancy on each student as well as the psychosocial consequence of the student's plan to deal with the pregnancy, and to identify, if possible, predictors of risk for poor adjustment which might allow the health service to initiate supportive services.

Assessing the potential for unplanned pregnancy and abortion to stimulate a developmental crisis in college women was central to understanding the psychosocial consequences of the experience. Thus, one goal of the project was to assess the frequency of developmental crises in response to the experience and to explore factors affecting the course of the crisis. The literature suggested three factors which appeared to influence the potential for the experience to stimulate a crisis and to affect its resolution. They were the woman's relative position along a dimension of activity versus passivity in response to the pregnancy and in planning to deal with it (Schaffer & Pine, 1972), evidence of thinking about the fetus as a baby, and a prior history of poor psychosocial functioning (Wallerstein et al., 1972). These factors were chosen to provide initial guidance to the exploration of the subjects' experience. They offered the promise of being identifiable in the medical contact related to testing for pregnancy, discussing positive test results, and exploring the subject's plan to deal with the pregnancy.

Risk Assessment Rating Scale

A Risk Assessment Rating Scale (see appendix A) was constructed based on these dimensions to explore which factors could be assessed and scored relatively easily by medical personnel following the appointment with the student in which a positive pregnancy test was discussed. Testing and refining this rating scale, if it proved useful, was expected to serve two purposes. First, it would provide the basis for making risk predictions which could be followed through the subsequent interviews to test their validity. Second, if valid, the revised rating scale would provide the basis

for a program to assess which students were most likely to be at-risk and, therefore, in need of ameliorative services.

The Risk Assessment Rating Scale was designed as a check-list and was divided into three parts. The first part was designed to gather basic demographic data such as name, birth date, ethnic background, previous abortions, religious background, and degree of religiosity and to examine issues related to passivity and dependence in decision-making related to the pregnancy and difficulty maintaining adaptive denial. It also asked about length and intensity of interpersonal involvement with the sexual partner; the degree to which the student's planning for the pregnancy reflected a realistic concern for maintaining the on-going course of her life; recent changes in the student's attitude toward relationships with peers, academic work, and social activities; and whether the student's parent or guardian knew about the pregnancy, what the student expected the parent or guardian's reaction to be, and if the parents or guardian did know about the pregnancy, what their actual reaction had been.

The second part asked the examining medical personnel to estimate the student's level of adaptive functioning prior to becoming pregnant based on the interview. The areas to be rated were, social relations, academic functioning, use of leisure time, and history of psychiatric illness. The third part asked about the student's long range plans for career and family.

Questions were developed to explore the areas of inquiry. For example, five questions were developed to explore the area of passivity and dependence in the decision-making regarding the pregnancy. They were directed toward assessing behavior related to the pregnancy such as how soon the student began to suspect she was pregnant, how much time elapsed

between her first suspicion of pregnancy and seeking medical advice, the degree of activity the student demonstrates in developing a plan to deal with the pregnancy, and the degree of the students investment in the pregnancy and the plans to deal with it.

Four to seven possible options were developed for each question which were presumed to assess differing levels of functioning. For example, the options for the questions designed to assess relative activity or passivity in response to the pregnancy were constructed along three dimensions: the length of time it took the student to take action, the extent to which the student relied on others in taking action, and the degree of the student's emotional investment in the process. It was assumed that the capacity to take action relatively promptly would be a sign of relative activity whereas delaying action in seeking medical advice or making plans to deal with the pregnancy were seen as a sign of relative passivity.

Schaffer and Pine (1972) found that the adolescents in their study who were most passive tended to rely on their mothers or a mother substitute to identify the symptoms of pregnancy and to take the initiative in planning for the pregnancy. It was assumed that among the sample for this study (who usually were living away from home and, therefore, less likely to be in a position for the actual mother to take this role) reliance on another person such as room mate, friend, relative or a health professional would represent a similar level of passivity. The same study also found that the passive adolescents tended to respond to the pregnancy with bewilderment and affective detachment from the process of making plans related to the pregnancy.

Thus, the question, "When did the student first suspect she was pregnant?", had five responses.

1. Before she missed her first period?
2. When her first period did not come on schedule?
3. When her second period did not come on schedule?
4. When the symptoms of her pregnancy were brought to her attention by another person such as roommate, friend, relative or health professional?, and
5. Other.

It was proposed that these questions would yield a dimension running from a relatively active stance regarding the pregnancy (suspecting she was pregnant prior to missing her first period or soon after her period did not come on schedule) to a relatively passive stance (waiting until her second period was missed or until another person brought the symptoms of pregnancy to her attention).

The other questions related to relative activity or passivity were assessed in a similar manner. The question, "How active has the student been in planning what to do about the pregnancy?" had six options which attempted to evaluate the degree to which a subject developed a plan for the pregnancy independently or appeared to be dependent on others to make the decision as well as the quality of the subjects affect related to the pregnancy. Thus, the range of responses was from those who had a definite plan during the interview, to those who were considering several options, to those who appeared to be looking to another person to make the decision. In the latter case, the rater was asked to indicate whether the other person was the boyfriend, a relative, a friend, the health service staff, or "other".

Health professionals often assume that those women who express psychological turmoil related to an unplanned pregnancy are at greater risk than those who appear calm and certain. Wallerstein et al. (1972) found no correlation between degree of affective turmoil related to the pregnancy and outcome. Schaffer and Pine (1972) found that the affect of bewilderment and detachment predicted poor outcome in contrast to the more dramatic affects usually assumed to be signs of risk. Therefore, options were offered with regard to whether the subject evidenced psychological turmoil in her consideration of options, and whether the subject appeared to be bewildered or detached.

The question, "How actively involved has the student been in planning for the abortion or the baby if she intends to continue the pregnancy?" had five options ranging from highly active, demonstrated by taking primary responsibility for arranging the contacts related to diagnosing the pregnancy and developing a plan to deal with it, to passive, signified by detachment from the planning process and reliance on others. Two mid-range options were offered to capture those subjects who were involved in the planning process but appeared to rely on others. In the first mid-range option, the person relied on was the boyfriend. In the second, the roommate, a friend, or relative. The investigator was interested in learning whether there was a difference between those who relied on the boyfriend or sexual partner and those who relied on a female friend or relative. Reliance on the boyfriend could be seen as a less regressive form of dependency, preserving young adult development and commitment to heterosexual adult relationships than reliance on a female friend or a relative which might signify a regressive investment in maternal substitutes.

Another question, "How invested is the student in the pregnancy and plans to deal with it?" asked the rater to assess the subject's psychological investment. Here the options ranged from appropriately invested to bewildered and dependent on others. Active interest in confirmation of the pregnancy and planning for it as well as certainty that it is she who is pregnant and she who must deal with it were proposed to signify appropriate investment. The subject who was bewildered by the pregnancy, acted as if it were not a real event, seemed to be most invested in a friend or relative rather than the pregnancy, and allowed the other person to carry the primary responsibility for pregnancy related planning was proposed to signify lack of appropriate investment. The mid-range response was the subject who reflected the affect of bewilderment but took responsibility for the pregnancy as something that was happening to her.

Wallerstein and her colleagues (1972) found that the capacity to maintain "adaptive denial", to suppress conscious thoughts about the fetus as a baby, differentiated those who did poorly from those who did well on follow-up. Those who were able to maintain adaptive denial were likely to do well, whereas those who did poorly were not able to suppress conscious thought about the fetus as a baby. One question asked the rater, "Does the student give evidence of thinking about the fetus as a baby?" to assess this dimension. This item was scaled along a dimension ranging from no evidence of conscious thought to pleasurable fantasies about caring for the baby and thoughts about abortion as "killing" the baby. The mid-range provided options for subjects who reported efforts to suppress thoughts about the fetus as a baby at the level of either fleeting thoughts or occasional pleasurable fantasies.

The basic demographic items required filling in a space on the questionnaire in the conventional manner, including the dates of previous abortions, if any. Religion was assumed to be an important factor to assess in as much as different faiths have quite different positions as to the morality of therapeutic abortion. The question as to whether students whose religious faith strongly opposed abortion would have more difficulty in psychosocial adaptation if those students choose to terminate the pregnancy was seen as an important question to assess. However, the degree of the student's involvement with her religion was seen as a possible intervening variable. Therefore, the rater was asked to make an assessment of the degree of the student's religious involvement in an item entitled "Religiosity."

Two items asked about the student's relationship with her sexual partner. The first asked about the length and significance of the relationship, with responses ranging from "a long-standing significant relationship" to "a brief, insignificant relationship." The second item asked if the pregnancy had precipitated a change in the relationship with the sexual partner (if the relationship was perceived as having been significant).

One item asked for a rating of the degree to which the student's planning reflected realistic concern for maintaining the on-going course of her life. It was proposed that student's whose planning reflected an effort to integrate the experience of pregnancy in a realistic way with her previously maintained life plan might differ on psychosocial adaptation to the pregnancy than those whose planning did not.

Additional items in the first part of the Rating Scale explored whether there had been changes in the student's relationship with peers,

attitude toward academic work, or social activities. The choices offered to the rater were designed to assess whether the student was withdrawing from relationships, academic work, and social activities and whether this was of concern to her.

The second section of the questionnaire asked for a rating of the subject's level of adaptive functioning in social relations, academic functioning, and use of leisure time prior to the pregnancy. The items were scaled based on an adaptation of the scale for adaptive functioning used in the third edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (1980) to the usual life circumstances of college women.

Wallerstein and her colleagues (1972) found that a history of psychiatric treatment and difficulty in psychosocial adjustment prior to the pregnancy predicted poor adaptation post-therapeutic abortion. Therefore, the final item in section two asked about psychiatric history. The rater was asked if the student had been in psychotherapy and, if so, for how long; if she had had a major mental illness, if she had been hospitalized, and if so, for how long; and finally, if she had not had a major mental illness, had she been seen in psychotherapy for prolonged difficulties in adjustment (in contrast to being seen in treatment for situational or developmental issues of a time-limited nature).

The final section of the Risk Assessment Rating Scale asked about the student's plans for the future. The items asked about the student's plans regarding work, graduate school, marriage and career following graduation as well as questions about the relative priority the student placed on marriage career and parenthood. The last items on the rating scale asked

how many children the student would like to have ideally and which sex she would prefer her children to be.

Initial Policy and Procedures

Recruitment of Subjects

All students who received positive pregnancy tests at the health service during the study period were asked to participate in the project by the physician or nurse practitioner who met with them at the time pregnancy was confirmed. They were told that the health service wanted to improve its services to pregnant students and, therefore, was conducting a study of pregnant students in order to learn from their experience so that services could be improved for service students in the future. They were told participation would involve coming in for several interviews over the next several months.

The Medical Director met with each student who expressed willingness to participate in the project to assure that the student's consent to participate was informed. She explored the student's questions about the project and, if the student expressed continued willingness to participate, ask her to sign the informed consent form (see appendix B). Frequently, the Medical Director was the staff member who was scheduled to discuss the results of the pregnancy test. If the interview to discuss the test results was scheduled with one of the medical personnel other than the Medical Director, the student was asked to meet with the Medical Director to discuss the project further. This interview was usually arranged for the same day, often within an hour.

Data Collection

The data for this project were gathered in a series of four interviews, each of about an hour in length. The first of these, the medical interview, took place at the time the student was told her pregnancy test was positive. It was to begin as soon as the subject signed the informed consent form, signifying her intention to participate in the project. The first research interview was usually scheduled a week following the medical interview. The second interview was scheduled about two weeks following the first research interview or in the week following the termination procedure. The third and final research interview was scheduled three to five months following the first interview.

This schedule provided a rough time table for the sequence of interviews. It was expected that the medical interview would probably occur on the day the subjects pregnancy test was confirmed but subjects were not excluded from the sample if the student chose to take some time before agreeing to participate in the project. Similarly, the timing of the research interviews was negotiated with the subject, recognizing that college vacations, the exigencies of college life such as exam schedules and assignment deadlines, as well as the subject's feelings about when she was ready to talk about her experience might influence the timing of the interviews.

Personnel

The personnel directly involved in data collection were the Medical Director of the health service and a clinical social worker. The Medical Director is an experienced female physician who brought extensive research

experience in adolescent health and sexuality to the project from her previous experience as the Director of an adolescent health center in an urban teaching hospital. The social worker is a man who brought twelve years of clinical experience in practice with children, adolescents, college students and adults to the project.

In designing the project there was concern that the gender of the clinical social worker might reduce the willingness of female subjects to discuss their experience related to sexuality and/or the reliability of the data revealed to a man. The Medical Director's prior research experience in adolescent sexuality led her to believe that it would not be a significant influence on subjects' willingness to discuss their experience or the reliability of that data so long as the subject was introduced to the clinical social worker early in her participation in the project and he was perceived by subjects as a concerned, non-judgemental and non-threatening professional. Therefore, a brief meeting between the subjects and the clinical social worker was planned to take place immediately following the medical interview. The stated purpose of that meeting was to schedule the first research interview and to answer any questions the subject might have about the project. It was expected that this brief meeting would help to contain whatever fears the subject might have about discussing her experience with a man.

If this procedure was not sufficient to deal with a subject's concern about the gender of the clinical social worker, a female clinical social worker from the counseling service volunteered to be available to carry out the research interviews. However, since the expected sample was expected to be small, no more than 25 to 30 subjects, and data collection by different

interviewers raised potential problems related to the consistency of the data, it was decided to offer the option of an interview with the female clinical social worker only to potential subjects who volunteered direct concern about discussing her experience with a man and whose concerns were not alleviated by discussing them with the Medical Director.

Both the Medical Director and the male clinical social worker listened carefully for signs that a subject was concerned about discussing her experience with a man during the medical interview and the first and second research interviews. When signs of discomfort such as difficulty talking, generally or about specific aspects of the experience, or a defensive, guarded attitude were detected, the subject's was asked if she felt that it was harder to talk to a man about these things than it would be to talk to a woman. If it appeared that the subject's feelings were likely to interfere significantly with her participation in the project or the reliability of the data she would reveal, the option of meeting with the female clinical social worker was offered. Finally, a question was included in the third research interview in a section evaluating the subject's feelings about participation in the project for those subjects who were interviewed by the male clinical social worker asking directly whether the subject felt that talking with a male interviewer had been more difficult for her than it would have been had she had the option of meeting with a female interviewer.

The data collected in the interviews were recorded in two ways. The first involved the Risk Assessment Rating Scale which the Medical Director completed on each subject following the medical interview. The second was in the form of a narrative report completed following the interview from notes taken during the interview.

The Medical Interview

The first interview in the planned series, the medical interview, had four purposes: to recruit student participation in the project, to secure their informed consent, to gather sufficient data to fill out the Risk Assessment Rating Scale, and to introduce the researcher who would conduct subsequent interviews (see appendix C for the initial interview protocol).

As originally planned, the first step in the medical interview was to explain the project and request the student's consent to participate in the research. If permission was not granted, the research interview was terminated. If further information was required for medical purposes, the student was assured that the information would not be included in the study. If the student granted permission by signing the consent form, the interviewer explained that the interview would involve exploring sensitive issues, presented the rationale for asking those questions and encouraged the student to say so if she felt uncomfortable answering any questions at any point. The remainder of the interview was a relatively structured exploration of the student's sexual history, psychosocial functioning, and plans for the future. The topics explored were as follows:

1. History related to this pregnancy including relationship with her sexual partner.
2. Date when she first began to suspect she was pregnant?
3. Her plan for how she will cope with the pregnancy?
4. Her sexual history, including sexual information, family attitudes, and contraceptive history.

5. The relevant family history.
6. Her social functioning prior to becoming concerned she might be pregnant and recent changes in functioning.
7. Plans for the future related to work and marriage
8. Other events it would be helpful for us to know about.

The final phase of the interview was an exploration of how the student felt about the interview. At the termination of this interview the student was introduced to the clinical social worker who conducted the following research interviews. Following the interview, the Director was to fill out a Risk Assessment Rating Scale and dictate her interview findings (see appendix D for the dictation guide).

The First Research Interview

The first research interview was to be scheduled within a week following the diagnosis of an unplanned pregnancy. Its purpose was to explore the subject's reaction to suspecting that she was pregnant and to the confirmation of pregnancy, her thoughts and feelings about how she would deal with the pregnancy, and relevant social history. The interview began with a brief explanation of the project and exploration of any questions the subject might have about the project or her participation in it.

The data gathering portion of the interview began with the question "When did you first begin to suspect you were pregnant?" This was followed by an exploration of the subject's thoughts and feelings during the period prior to the medical confirmation of her pregnancy. The exploration of this data led in to the exploration of her reaction to the medical

confirmation of her pregnancy with a question such as "How did you feel when you found out the pregnancy test was positive?" or "What was it like for you when you were told you were pregnant?" This was followed by an exploration of her feelings since that time, who she talked with about the pregnancy (her sexual partner, girl friends, etc.) and her thoughts about telling her parents.

The relevant social history was often revealed spontaneously through the exploration of the areas above. When it was not, an attempt was made to explore it following these questions. The areas of social history which were explored included the subject's relationship with her sexual partner and contraceptive history, her adjustment during this semester prior to beginning to suspect she was pregnant, and family background, including religious background and attitude toward abortion as well as thoughts about her family's reaction to the knowledge she was pregnant if she had not told them, or their actual reaction if she had.

The Second Research Interview

The second research interview was planned to take place about two weeks following the first or within one to two weeks following the procedure to terminate the pregnancy if the student choose to terminate it. It was focused on exploring the subject's thoughts and feelings between the medical confirmation of the pregnancy and the present. If the subject planned to continue the pregnancy or was actively debating whether to terminate the pregnancy, the interview focused on the development of her thoughts and feelings through this process. If the subject had decided to terminate the pregnancy (the most frequently expected response), the

interview explored the subject's thoughts and feelings between the medical confirmation of the pregnancy and the procedure, the procedure itself, and the subject's experience since the procedure.

This interview was to be initiated with a question such as "How has it been going for you?" The areas explored related to the subject's feelings prior to the procedure, who went with her to the procedure and how she decided upon that person, the subject's reaction to the procedure per se including whether the procedure was as painful as anticipated, and the subject's experience immediately following the procedure, and since then. Included in this was an exploration of the subject's relationship with her sexual partner and peers during this period. Finally, the subject's thoughts about the future were explored, if possible, particularly when the subject indicated some thoughts about how her future might be different as a result of her experience. Items from the social history which were not explored in the first interview might be volunteered during this interview. If a significant part of the social history had not been explored previously and was not volunteered in this interview, it was to be explored toward the end of this interview, if possible.

The Third Research Interview

The third research interview was scheduled three to six months after the medical confirmation of the pregnancy and before the end of academic year. Its goal was to assess the subject's psychosocial adjustment following the diagnosis of the pregnancy, her thoughts and feelings about taking part in the project, and her ideas about how the health service could be more helpful to pregnant students.

The subject's psychosocial adjustment was explored in two areas: psychological functioning and social functioning. Psychological functioning was explored in relation to affect and sense of self. Affect was explored in relation to the subject's affective state. Did she tend to feel depressed or happy most of the time now? Was she troubled by feelings of guilt or shame? Were her memories and feelings about the pregnancy and its termination (if she choose to terminate it) open or closed. The subject's sense of self was explored in relation to her feelings about how she was using herself in academic work and interpersonal relationships including her feelings about sexual relationships, and her feelings about her goals for the future. Evidence of changes in the subject's sense of personal maturity and her sense of control over and mastery of her life at the moment and in the future were listened for carefully and explored.

Social functioning was explored in the areas of interpersonal relationships and functioning in academic work. Evidence was sought with regard to the subject's behavior since the previous interviews. What had happened in her relationships with her sexual partner, male and female peers? What had her academic performance been? Was she sexually active and what plans did she have for birth control?

The interview began with a general question such as "How have things been going for you?" The subject's response determined which area was explored first. When other areas to be covered were not volunteered spontaneously, questions in those areas were asked such as "Are you dating?" or "Have you found yourself thinking differently about what you want for the future?" If significant areas of the social history had not been explored

previously or if there were ambiguities in data from previous interviews, they were explored in this interview whenever possible.

The final portion of this interview explored the subject's response to the project and ideas about how the health service could be more helpful to pregnant students. Exploration of the subject's response to the project was initiated with the question, "How have you felt about taking part in this project?" Other areas explored included whether the subject felt it had been helpful to talk about her experience, whether she would have participated in counseling if it had been offered, how she had felt about talking with a man, and whether she thought it would have been easier to talk with a woman. Finally, the subjects were asked what ideas they had about how the health service could be more helpful to students who had pregnancies and abortions, if they thought counseling would be helpful to students, and if they had been offered a choice of peer or professional, group or individual counseling, would they have taken part and which would have been most attractive to them.

Follow-up Procedures

The procedures to be used in following up on subjects who cancelled or failed scheduled interviews or to recruit further participation from subjects who had initially agreed to participate but then elected to withdraw from the project required considerable thought. Since sample attrition had been significant in previous studies of abortion, raising question as to the validity of their findings (Adler, 1976), maintaining as much of the study population in the sample as possible was a goal. This was deemed especially important to this project since those students who

choose to withdraw from the project were presumed to have had more conflict about the service provided to them or the process of participating in the project. Therefore, their perspective would be a particularly valuable source of information for the development of improved services.

The degree of vigor used to pursue subjects, however, needed to be modulated by respect for the subject's autonomy as well as respect for the sensitivity some subjects might feel about revealing their thoughts and feelings about an unplanned pregnancy and abortion. Since the literature suggested that adolescents who took steps toward active mastery rather than passive acquiescence had better psychosocial outcomes (Schaffer & Pine, 1972), follow-up procedures needed to be developed with awareness of the possibility that a decision to withdraw from the project might constitute a way of taking active mastery over the experience for some subjects. In such a case, a vigorous follow-up, if successful, could undermine the subject's movement toward mastery if the subject experienced herself as having to acquiesce to an authority.

The health service in a small women's college must be mindful of how the service is perceived by the student community, particularly in sensitive areas such as reproductive health. The student gossip system is attuned to any signs that the health service is not supportive of students in matters related to reproductive health. If word got on the student grapevine that the project was unduly intrusive, potential subjects might refuse to participate or seek pregnancy testing elsewhere in the community.

Given these concerns, follow-up procedures were designed to assure that students had an opportunity to participate in the project if they chose but had the right to withdraw without feeling intruded upon if they elected

to do so.

When subjects who had agreed to participate in the project called to cancel or failed to come for a scheduled interview, an attempt was made to call them on the telephone to explore their reasons and set up another time for the interview. When the subject was not reached directly which was often the case in calling those subjects who lived in the college dormitories, a message was left for the subject to return the call. If the subject did not return the call within a week, a letter was sent to the subject asking her to call to schedule another appointment. If the subject did not respond to the letter, a final letter was sent during the Spring semester stating that it was unclear whether she intended to continue in the project, expressing the hope that she would as her participation would contribute to providing better services to students in the future, and asking if she would call to schedule an appointment for the final research interview.

Subjects who formally withdrew from the project were sent a letter toward the end of the Spring semester asking if she felt enough time had passed for her to consider taking part in the last research interview. It stated that while we had learned a great deal from those who participated in the project, we believed that students who decided not to continue had a perspective which would be especially valuable in developing services for students in the future. It explained that we were, therefore, particularly interested in talking with those students who had decided not to continue. The letter ended with a statement that we would, of course, respect her right to decline to come in for the interview.

Additional follow-up data on the subjects was gathered one year after the termination of the project through a review of the medical records

of those subjects who were still enrolled. These data on the utilization of medical and counseling services provided the only way of checking on whether the outcome rating held up over-time. For example, if those rated as having achieved a positive outcome tended to present at the health service with many somatic complaints in the following year, it would tend to raise question about whether the adaptation had been genuinely progressive. Conversely, if those who were rated as having a poor outcome required on-going counseling, it would tend to support the rating. It might also provide some data on the course of the poor adjustment over-time.

The October Crisis

The project began in September, 1983. It appeared to be successful during the first month. The medical staff of the agreed to participate in the project and seven of the eight students recruited for the project agreed to participate. All were introduced to the clinical social worker who would conduct the subsequent research interviews after they agreed to participate and, in the brief contact interview, expressed interest in contributing to the project and agreed to appointment times for the first follow-up interview.

The project's initial appearance of success turned out to be illusory. The illusion came to an end abruptly toward the end of September when three students failed scheduled appointments for research interviews and two others cancelled. One student who had agreed to participate told the nurse practitioner whom she had had initial contact with that she did not intend to continue in the project because of her reaction to the medical interview.

Another student became so distraught during the medical interview that a crisis intervention session was set up for her the following day. She was constrained and stiff during the crisis interview until the interviewer commented on his perception that the interview appeared to be difficult for her and expressed regret that he was failing to find a way to help her feel more comfortable. At that point her feeling of resentment about the questions asked in the medical interview burst through her reserve. She said she felt that the medical interview had been "no help". She complained bitterly, "I did not want to talk about how many children I want to have some day." As her resentment was explored she admitted to feeling exploited by the questions she had been asked and angry about the interview. Her distraught state the previous day appeared to be her way of expressing her anger at what she saw as the intrusiveness of the medical interview.

This evidence of a high early drop-out rate from the project and the suggestion that the research procedures were experienced as offensive by some students raised a troubling question. Since most students agreed to participate in the project initially, the idea of participating in the project was not unattractive. The project had been designed with the intention of being non-threatening and non-intrusive yet it appeared to be failing to achieve that goal. What could be going on?

The Shock State

One of the students who failed her appointment agreed to come in for an exit interview to discuss her reasons for deciding to withdraw from the project. Her reaction was particularly helpful in sorting out the answer.

She said she had agreed to participate and had answered the questions in the medical interview while she was in what she described as "a state of shock" as a result of hearing that her pregnancy test was positive. This emotional state was the dominant feature of her experience at the time. She said she could not remember the answers she gave during the interview but she felt certain that they did not reflect her real feelings. She recalled herself as "pulling any answer out of the air". What she recalled wanting at the time was to be by herself to think. She realized later that she felt angry at and exploited by the interview.

Her reaction had two alarming features. First, even though she had been asked to tell the interviewer if she felt uncomfortable answering any of the questions, she made no direct reference to a powerful reaction she was having. Second, the interviewer was the Medical Director, an experienced physician and clinical researcher, who was unaware of this subject's response during the interview. The Medical Director was herself shocked to hear about the subject's reaction. She had perceived the subject as willing and cooperative. As a person who prides herself on her clinical sensitivity as a physician and her judgement as a researcher, the report that she could have missed such a significant phenomenon in the interview was a cause of grave concern to her personally.

It was also a cause of concern for the research. The shock state appeared to be an interruption in the subject's usual integration of affect and cognition. It appeared that the effect of this interruption was to predispose the subject to go along relatively passively with requests made of them and to lack immediate access to the affective responses which usually serve as a signal of discomfort. The absence of this signal appeared to

leave them vulnerable to recognizing their discomfort only in retrospect and to feel that they had been taken advantage of and exploited. It raised question as to whether consent to participate in the research while in this state would be considered truly informed. It also appeared that information given under these circumstances was of questionable validity. Particularly troubling was the fact that this state was not readily observable.

Given these concerns, it was important to determine whether this subject's reaction was idiosyncratic or reflected a common experience. One of the questions in the first research interview asked how the subject felt when she was told that her pregnancy test was positive which gave access to exploring this area. In fact, several other students reported similar feelings of being disconnected and uninvolved in the medical interview and wishing to be alone to have time to think, although they did not all feel exploited by the interview or that their responses during the interview were inaccurate. Knowing about the shock state also helped to explain the angry reaction of the student seen for crisis counseling because she became so distraught in the medical interview. This suggested that experience of a shock state was not unique to this first subject who described it so vividly.

Implications of the Shock State

The discovery of this shock state raised both practical and ethical questions about this research effort. From the practical point of view, the shock state raised questions about the viability of the project. The project was designed around the information gathered in the medical interview. If that information was not forthcoming or unreliable, the approach to data collection would have to be modified. If the medical interview alienated

many students, it would not be possible to recruit a sample for the project. The ethical questions were even more troubling. If subjects are likely to experience the research effort as exploitive, the ethics of such research require procedural modification.

The discovery of the shock state, combined with other emerging data raised additional ethical questions with regard to the possibility that the procedures typically used by the health service might reinforce the passive adaptation which the literature review suggested tended to promote a poor psychosocial outcome. The data which became evident during this early phase of the project's implementation indicated how quickly the subjects decided to terminate the pregnancy. The project had been developed with the naive idea that there would be a period of some time between the medical confirmation of pregnancy and the subject's decision with regard to the course of action she would take with regard to the pregnancy.

However, it became clear early in the project that most subjects decided to terminate the pregnancy within seconds of learning that the pregnancy test was positive. The affective tone associated with this decision was particularly noteworthy. The decision did not seem to be experienced by many subjects as the exercise of free choice but appeared to be perceived as the only option available to them.

Given the study's hypothesis that the degree of activity versus passivity experienced by the pregnant student in the phases of identifying and deciding how to resolve the pregnancy were critical to whether the experience was resolved in a progressive or regressive direction, this affective tone and the emerging evidence that at least some subjects were in a state of shock in which they were not fully in command of their thoughts

and feelings suggested that a decision arrived at under these circumstances might be experienced by the student as a passive decision. If this is the case, well-intended efforts by medical personnel to help students arrange the abortion during the appointment in which the pregnancy is diagnosed may solidify a relatively passive adaptation, potentially contributing to the lowered level of psychosocial functioning the project hoped to find ways to identify and prevent.

Revised Policy and Procedures

The data collected during the first month of the project's implementation led to major revisions in research procedures and strategy. First, the research interview needed to be revised to accommodate the vulnerability to feeling exploited by the research procedures which some subject's apparently felt in the period just after they found out that the pregnancy test was positive. Second, the shock state which appeared to be a significant feature of at least some subject's experience needed to be explored. Third, the timing of assistance in arranging for the abortion procedure needed to be examined. Finally, the research strategy had been designed on the assumption that sufficient information about the subjects' experience could be elicited during the medical interview to complete the Risk Assessment Rating Scale and that the results of the Rating Scale would be the criteria for evaluation. Changes in the medical interview made it necessary to change the criteria for evaluation.

The Revised Medical interview

Although attention to the relationship dimension in the interviews had been intended in the original design of project, there appeared to be a conflict between research and relationship goals in the medical interview. As we attempted to understand the subjects' feeling of having been exploited by the medical interview, it seemed likely that they had agreed to participate in the project at least in part because they experienced the Medical Director as a benign, motherly person who was attuned and sensitive to their feelings during the initial phase of the interview. The transition to a more structured interviewing style focused on securing specific information about their history and future plans which essentially asked them to give to the project when they had hoped to be able to take, represented an empathic failure. While we had anticipated that the subjects would be in a relatively vulnerable state during the medical interview, we had lost our focus on that relationship dimension in pursuit of the data needed to complete the Risk Assessment Rating Scale.

Therefore, the emphasis of the research interview was changed to give primary importance to maintaining empathic attunement to the subjects' psychological state and needs during the interview in the service of developing the relationship, explaining the goals of the research project and what it required of participants, and securing the subjects' informed consent (see appendix E for the revised protocol for the medical interview). Gathering information necessary to fill out the Risk Assessment Rating Scale was to be of secondary importance, to be pursued only if it flowed naturally from the interview. Thus, one of the research objectives became assessing whether information proposed to be useful in assessing risk

emerged naturally from a medical interview focused on empathic attunement to the subjects' psychological state.

Revised Research Interviews

There were two lessons learned from the October crisis which were significant for the research interviews. The first was to underline the importance of maintaining empathic attunement to the subjects during the interviews, emphasizing the priority of sensitivity to the subjects' feelings and needs over data gathering when the two appeared to be in conflict. The second was to explore the frequency, duration, and predictive significance of the shock reaction.

Neither required major revisions in the planned interview protocols. However, the question planned for the first research interview, "How did you feel when you were told the pregnancy test was positive?" took on increased significance. It was decided that if subjects did not spontaneously report something akin to the shock experience to ask specifically if they had something like it. The inquiry was to be "Some students have reported that they felt in a state of shock when they were told the test was positive and it took them some time, a few hours to a few days, to feel like themselves again. Did anything like that happen to you?" If the subject gave evidence of having had the shock reaction, further inquiry would be directed to assessing its phenomenology, including its duration and what helped to bring it to an end. Thus, one of the goals of the research process became to assess the natural history of the shock phenomenon.

This process was to begin in the brief interview when the clinical social worker was introduced to the student by the Medical Director. In the

beginning of this brief contact, just after the Medical Director had introduced the subject to the clinical social worker and had left the living-room like office where this interview was conducted, the subject was asked if she had been surprised when she was told the test was positive. If the subject admitted surprise, this was to be explored briefly, ending with the comment "It sometimes takes a little while for people to feel like themselves again. We will be interested in hearing about how it is for you." If the subject denied feeling surprise, a comment such as "Some students have reported feeling quite surprised and shocked when they were told the test was positive and have felt that it took a little while to feel like themselves again. We will be interested in hearing about it if you find yourself feeling anything like that." The phrasing and extent of this inquiry varied according to the interviewer's judgement regarding the particular subject's needs at the moment.

This inquiry in the initial contact interview laid the foundation for the exploration planned in the first research interview. The phenomenology of the shock reaction was to be continued in the second research interview, if appropriate, in the section which explored the subjects' feelings between the medical confirmation of pregnancy and the procedure.

Revised Research Strategy

The revisions in the medical interview brought about a major change in the research strategy. It quickly became clear that focusing the medical interview on establishing a relationship with the subject and recruiting their informed participation in the project meant that the Medical Director did not get enough data to fill out the Risk Assessment Rating Scale. In

practice, it turned out that she felt she did not learn enough about many subjects to have anything to record about her exchanges with them. This meant that the research interviews became the major data base for the project.

The Risk Assessment Rating Scale was dispensed with as an instrument. The areas of inquiry on which it was based were to be explored in the research interviews. Thus, the goal of the project became to assess which of the proposed predictors appeared to be valid and at what time in the unfolding of the subjects' experience and in what way did data about the predictor become accessible.

Despite this major revision, the project continued to hold promise. The first month of its implementation had brought our attention to what appeared to be a very salient feature of the subjects' experience, the shock phenomenon, which had not been reported in any of the literature. Assessing its phenomenology and natural history appeared to have promise of making a significant contribution to developing improved services for pregnant students.

The goal of discovering predictors of outcome remained even though the methodology was changed significantly. It was apparent that we had tried to do too much too soon. The Risk Assessment Rating Scale included many items in a variety of areas that there was reason to believe might be predictors of outcome for this population but had not been validated. Completing it required inquiry in many areas of the subjects' experience some of which were probably not relevant to assessing risk. Thus, if the project revealed predictors of risk through the information gathered in the research interviews, they could serve as the basis for developing revised

(and less cumbersome) procedures through which the medical personnel could assess a student's risk for poor psychosocial adaptation to an unplanned pregnancy.

The Sample

Thirty-four students had positive pregnancy tests during the study period and were asked if they would participate in the project. Twenty-five (74%) agreed to participate during the medical interview and nine refused. These 25 subjects constituted the original sample from whom data with regard to demographic and social history data were available as well as data with regard to the pregnancy. Nine subjects dropped-out of the project during the research interview series before sufficient data were gathered to assess outcome. Thus, the outcome sample was composed of 16 subjects, representing 64% of the original sample of 25 who agreed to participate and only 47% of the students who had positive pregnancy tests during the study period.

Six (24%) of the original sample withdrew from the project following the medical interview and before the first research interview. Five others withdrew from the project before the follow-up period, although sufficient information was available from the second research interviews and medical records to determine the outcome for two of these subjects (one had a repeat pregnancy within the follow-up period, the other a psychiatric hospitalization). ~~Table 1~~ Table 1 (below) summarizes the number of positive pregnancy tests, the number who refused to participate, those who dropped out of the project before information on outcome could be gathered, and the outcome sample.

Table 1

Pregnant Students by Participation in the Project

		Participation		
	N	Refused	Drop-out	Outcome
Number	34	9	9	16

The change in project procedures in response to the October crisis appears to have been successful in retaining a greater percentage of the subjects in the project. Six of the nine subjects (67%) recruited before the change in procedures withdrew before the first research interview whereas only three of the 16 subjects (23%) recruited after October 1 withdrew. Of these three, only one withdrew before the first research interview; the other two dropped out following the first research interview.

Demographic Characteristic of the Samples

Data regarding the age, religion, race, and nationality of the students who had positive pregnancy tests and their participation in the project are summarized and compared in tables 2 through 5 below.

Table 2
Pregnant Students by Age and Participation
in the Project

Age	N	Participation		
		Refused	Drop-out	Outcome
19	7	3	1	3
20	14	4	2	8
21	8	1	4	3
22	5	1	2	2
Total	34	9	9	16
Average	20.3	20.0	20.8	20.3

Table 2 indicates that all of the reported pregnancies occurred to women between the ages of 19 and 22 years. The mean age of the students who received a positive pregnancy test at the health service during the study period was 20.3 years, the same as the subjects whose psychosocial outcome was assessed, indicating that with respect to age the outcome sample represented the total sample. The subjects who refused to participate were somewhat younger whereas those who dropped out of the project before it was completed tended to be somewhat older.

Table 3

Religious Background of Volunteers and Outcome Subjects

Religion	N	Participation	
		Drop-out	Outcome
Catholic	11	5	6
Protestant	9	1	8
Other	1	0	1
No Information	4	3	1
Total	25	9	16

Table 3 reports the religious background of those who participated in the project. Reliable information was not available for those who refused to participate. Of the 21 subjects for whom information regarding religion was available, 11 were Catholic, nine Protestant, and one Other. Only six of the 11 Catholic subjects (55%) as opposed to eight of the nine Protestant subjects (89%) of those who volunteered remained in the outcome sample. Thus, the subjects who originally volunteered but withdrew before follow-up data was gathered tended to be predominantly Catholic. Comparing this sample with Adler's (1976) finding that younger women and Catholics were over-represented among those who did not complete follow-up studies, younger women were not under-represented in the outcome sample of this study whereas Catholic subjects were.

Table 4

Racial Background of Pregnant Students by Participation

Race	N	Participation		
		Refused	Drop-out	Outcome
White	27	8	8	11
Black	5	0	1	4
Asian	1	0	0	1
Eurasian	1	1	0	0
Total	34	9	9	16

Table 5

Nationality of Pregnant Students by Participation

Race	N	Participation		
		Refused	Drop-out	Outcome
USA	30	9	8	13
Foreign	4	0	1	3
Total	34	9	9	16

Tables 4 and 5 indicate that most of the women who had positive pregnancy tests as well as most of those from whom outcome data was gathered were white United States citizens. The project, however, did well in maintaining its minority and foreign student representation through the follow-up period. Black students and foreign students each comprise four per cent of student body during the year of the project but comprised 25% and 19% of the respective outcome samples. Of the five Black, one Asian, and one Eurasian women who had positive pregnancy tests, only one refused to participate and one dropped out after volunteering. Similarly, of the four foreign students who had positive pregnancy tests, the three who remained in the outcome sample were from Third World countries, whereas the student who dropped out of the project was European.

In summary, the outcome sample is similar to the the total group of students who had positive pregnancy tests at the college health service during the study period with respect to age. Catholic subjects appear to be under-represented in the outcome sample whereas minority and foreign students are over-represented.

Contraceptive History

This was the first pregnancy for 21 of the 25 students from whom data regarding prior pregnancies was gathered. Four had had one previous pregnancy and abortion.

Table 6

Birth Control Method Used and Participation

Method	N	Participation		
		Refused	Drop-out Volunteers	Outcome Sample
None	13	2	4	7
Male Withdrawal	2	0	0	2
Diaphragm failure	4	1	0	3
Condom failure	4	2	1	1
Pill failure	3	1	1	1
No information	8	3	3	2
Total	34	9	9	16

Table 6 summarizes the students' report of their use of birth control measures during the intercourse which led to this pregnancy. Half of those who reported whether they had used birth control measures had not been protected during the intercourse which led to this pregnancy in the sample from which the sample was drawn and in the outcome group. Among the outcome sample, four had diaphragms which they did not use as did eight of those originally recruited to the sample. Half of those who reported birth control history in the outcome sample attributed the pregnancy to birth control failure. Two counted on withdrawal as a method of birth

control. Three attributed the pregnancy to diaphragm failure, and one each to condom and oral contraceptive failure.

CHAPTER 3

FINDINGS

Introduction

In this chapter, project data were analysed to assess the impact of unplanned pregnancy and abortion on the psychosocial functioning of college women and to develop a framework for predicting psychosocial risk. It begins with an analysis of the psychosocial adaptation level the subjects achieved by the end of the study period. These findings were used as the basis for identifying predictors of later adaptation. The data were analysed in the order in which the information would become available to health service personnel in the usual course of interviewing a student around the diagnosis of a pregnancy. Objective data sources such as demographic information (age, race and religion) and the subject's statement of her presenting problem and the length of time since her last menstrual period are presented before findings of an evaluative nature such as impression of psychosocial functioning and assessment of the content of the subjects' narrative. Finally, the subjects' reaction to participating in the project were examined for indicators of ways in which a compatible service program could be developed.

Psychosocial Adaptation Post-Abortion

The assessment of post-abortion psychosocial adaptation was based on the subjects functioning three to six months following the termination of the pregnancy. Sufficient information was available to rate the psychosocial adaptation of 16 subjects; 14 subjects were interviewed during this period and the medical records of two other subjects provided sufficient data to assess their functioning.

These subjects' report of their experience at the time of the follow-up interview were rated along two dimensions: level of psychosocial functioning and the degree of psychological closure concerning the pregnancy and abortion experience. Level of psychosocial functioning was examined in terms of the subject's report of her functioning in work and social relationships and preception of self in the present and expectations for the future. The degree of psychological closure of the pregnancy and abortion experience describes a continuum ranging from those who remained pre-occupied with feelings such as guilt and shame related to the experience of having been pregnant and having terminated the pregnancy and for whom it remained an open psychological wound on one end to those who were able resolve whatever conflicts it stirred up, integrate the experience , and, in Wallerstein et al.'s phrase, "consign it to memory" at the other.

This analysis yielded four categories of post-abortion psychosocial functioning which appeared to capture the variation among the 16 subjects.

Progressive Adaptation - The dominant factor in the assessment of this group was the report of more mature levels of psychosocial

functioning and an increased sense of self-confidence and capacity to master the course of their lives in the future as well as evidence of improved social functioning in the present. Subjects in this group gave evidence of feeling a greater sense of command of their lives, were doing better in school and deriving more pleasure from their work.

2. Satisfactory Adaptation / Closed Experience -

These subject reported having closed the experience of the pregnancy and abortion and had resumed the pre-pregnancy course of their life at nearly the same level of functioning in social relationships and academic achievement. Thus, this group was composed of those subjects who were able to close the experience and resume their prior level of functioning without demonstrating either increased or lowered levels of functioning or expectations for the future.

3. Mixed Adaptation / Open Experience -

This group included those subjects who were continuing to have difficulty closing the experience, demonstrated by crying spells and mood swings or pre-occupation with guilt feelings related to the pregnancy and abortion experience. These feeling might be accompanied by some feelings of greater maturity, although this was not be a dominant feature of their experience. The subjects in this group might also have increased difficulty functioning academically.

4. Poor Adaptation - These subject were functioning poorly in academic work or social relationships. Included in this group were those demonstrating serious psychiatric symptoms or a pattern of self-destructive acting-out.

Progressive Adaptation

One subject whose prior adjustment have been marked by passivity and depression exemplified progressive level of post-abortion adaptation. She reported feeling much more independent and in command of her life when she was seen five months following the termination of her pregnancy. She described this change in terms of feeling a greater sense of "will" to do what she has to do and more motivation to do it. "I have realized that at (this college) it is not how bright you are but how hard you work that is important." Her optimistic mood was based on experiences of mastery and a new sense of being able to use herself in an active, purposeful way to achieve her goals. She said she felt that "the most important part is taking control, taking chances to get things done." She said, "I am realizing that I have to make it on my own." She said that this realization was not always with her and gave examples of how she used to experience disappointments as a passive victim in contrast to her new determination to fight to overcome them.

A foreign student who had placed herself in considerable academic and social jeopardy as a result of her intent to "go wild" while in the U.S. where she felt free to rebel against the constraints her culture placed on women's behavior reported with a big smile that she had been feeling very

good recently when she was interviewed two months following her abortion. She was please with her life, her work, her classes and her friends. She described the experience of the pregnancy and abortion as having "forced me to use my mind in a more focused, adult way and helped me discipline my feelings."

She said that during her first semester on campus she had felt "very unhappy, like there was a void inside" her. "I was depressed so I would drink alot." She said that she felt she had her priorities straight this semester. She used to sleep through her classes prior to the pregnancy but now she usually goes to bed at 11:00 and gets up early enough to get to her morning classes. She had begun "looking at the bright side. I used to be a pessimist before. Before I did whatever my heart said, now I think."

Still another subject described her pre-pregnancy adjustment as marked by feelings of depression and "a real sophomore slump" in which she felt behind and that "making an effort wouldn't make a difference", reported that her "sophomore slump" was over when she was interviewed four months after her abortion. She was feeling much happier, in command of her life, and optimistic about her plans for the future. She felt she was doing much better academically. Her achievement level was higher and she was much more pleased with the work she was doing. When asked what was different, she said that it wasn't the level of challenge in her courses. Her courses this semester were even harder. Last semester she just couldn't get interested in her work. Now she feels excited about it.

She said that she learned from the experience that "I can overcome things, I won't break down". "It gave me a greater sense of my whole self. I can have weak feelings and doubts but I can still carry on." This left her

feeling that she can master future challenges. She used to think that she would never be able to handle life on her own without the protection of her parents or others. Now she has more confidence that she can. She said that the toughest part of the experience was in making the decision and the "emotional wrestle with myself" that involved. She was determined that "if it happens again, it will happen when I am ready."

Satisfactory Adaptation

The satisfactory outcome group were marked by their capacity to close the experience of the unplanned pregnancy and abortion and get on with the course of their lives. In contrast to the previous group, none of these subjects presented material which was classified as a sign of greater maturity as they did not report significantly changed perceptions of themselves. The subjects in this group did report behaviors which caused some concern about the course of their future development but this material appeared to be syntonetic with their functioning prior to the pregnancy and abortion and did not appear to represent a decline in functioning resulting from the experience.

The two subjects in the sample whose abortions were medically recommended were in this group. Neither of them had a real choice to make with regard to continuing the pregnancy. This may have facilitated their capacity to close the experience. For example, one subject whose abortion was medically recommended because the pregnancy occurred while she was taking birth control pills and, therefore, there was substantial danger that the fetus was damaged, reported that she does not think about the abortion much. "It is done now, why should I concern myself with it. It

is more or less a past event." She had been on academic probation the year before. When she was seen eight months following her abortion she reported that her academic work was better this semester although she had three term papers coming up which she was a little worried about. She had four courses and was caught up for once except for the papers which were not yet due. She was actively involved in social activities and had resumed sexual activity without substantial conflict. Although she reported a generally improved level of functioning, she was rated in the satisfactory rather than the progressive group because she did not report the experience of increased self-confidence and pleasure in mastery reported by those in the progressive group.

Another subject who had been pre-occupied with thinking about the pregnancy prior to and in the three months following the abortion reported that "It is off my mind now" when she was seen six months later. The pregnancy had stimulated strong wishes to be a mother and get married as soon as she finished school. These wishes represented a major change in life plan which had alarmed her. At the time of the follow-up interview she reported that her career plans were "back to normal." She intended to pursue her PhD. prior to starting a family. She said that she did not feel as "afraid" of marriage as she used to and was uncertain about whether she would have an abortion if she became pregnant again. She was aware of a conflict between her wish to continue her education and her feeling that abortion is "the wrong thing for me," on one hand, and her strong feeling that she was not ready to have children yet, on the other. She was surprised that she had earned A's in all her courses during the semester in which she was pregnant. This was part of a pattern of increasing academic

achievement through her college career of which she felt proud. She had resumed sexual activity with her partner. She was using contraception but was aware of feeling more anxious prior to her period.

Mixed Adaptation

The subjects in the mixed outcome group appeared to have substantial difficulty closing the experience and often gave the impression of being burdened with open feelings of guilt. They also tended to describe difficulty functioning academically since the procedure or mercurial state in which they functioned well at some times and had periods when they had substantially more difficulty functioning. Several also reported an increased sense of maturity. The general impression of this group was that they were still in the process of working on the experience and that their level of adaptation had not stabilized at the time of the third research interview.

For example, one subject who was seen four months after her abortion reported that, although she had functioned well until the procedure, since then she had not studied much and had not liked her courses or being a student. She felt angry at herself for her inability to mobilize her energies and make herself work. She described the period between the abortion and the present as "the low-point in my life." She was behind in her work and spending increasing amounts of time alone. She said, "I wanted to have time alone--not necessarily to think but just to be alone away from my parents." She felt that she could not join discussions among her friends about the abortion issue because she would feel like telling them, "you don't know what you are talking about." Some of her

closest friends are pro-life advocates. She tended to keep her distance from them in order to avoid conflict. She felt alienated from them because something important had happened to her that they did not know about.

She also reported some positives from the experience. She reported feeling "not as afraid of independence as I used to be." She was planning an internship away from home for the coming summer which she would have been reluctant to consider before. Conflict with her parents over their discovery of her abortion had "pushed me out of the house and I am not as afraid of separation from my boyfriend as I used to be."

Another subject described a mercurial affective state which she thought was related to the abortion experience. She said she felt herself bouncing from the confident state she was used to to one which she characterized as "lacking discipline." In this latter state she had difficulty finishing tasks such as getting papers in on time or even getting her laundry out to the dryer. She felt disappointed in herself and was afraid she would not be able to finish her work for the semester. She said, however, that at other times she feels much better. She was enjoying her major and her social life much more than she had in the previous year.

She described a similar mercurial quality in her relationship with her sexual partner. They had been spending more time together and, at times it felt intimate and wonderful, whereas at other times she felt crowded by him and wanted to have more time by herself. She had begun using reliable contraception and reported enjoying sexual activity which she had not previously.

She said she had "nothing but selfish reasons for the abortion" but did not feel guilty about it although she did feel sad about it in retrospect.

She had recently felt enough distance to rejoin discussions of the abortion issue which she had avoided following her abortion.

Poor Psychosocial Adaptation

The subjects whose psychosocial adaptation was rated as poor three to six months following the abortion had had difficulty in functioning in the period before they became pregnant and appeared to have become further entrenched in these maladaptive patterns as a result of the pregnancy and abortion experience. Those who had had histories of depression prior to the pregnancy became sufficiently depressed to require hospitalization for psychiatric reasons during the follow-up period. Those who had been engaged in patterns of impulsive acting-out prior to the pregnancy appeared to be further entrenched in their pattern of impulsivity. One had a repeat pregnancy before the end of the study period. The other appeared further committed to a pattern of acting-out which was in sharp contrast to the values she espoused, suggesting the consolidation of a negative identity. For example, in discussing her future plans she said her career will be her number one priority and remarked blandly that she "may have to use feminine seduction" to move up in her career.

As Table 7 indicates, four subjects met the criteria for each of the four categories.

Table 7

Post-Abortion Adaptation of the Outcome Subjects

Subjects	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Number	16	4	4	4	4

These findings support the hypothesis that unplanned pregnancy and abortion provokes a psychological crisis in college women. Only 25% of the sample, those in the Satisfactory Adaptation group, emerged from the crisis functioning at the same level of psychosocial adaptation that marked their pre-pregnancy functioning. The psychosocial adaptation of the other 75% appeared to have been significantly influenced by the experience. The 25% in the Progressive Adaptation group appeared to experience the crisis as a stimulus toward more mature levels of functioning. The 50% of the sample who were in the Mixed and Poor Adaptation groups demonstrated increased difficulty in psychosocial functioning.

Predictors of Outcome - Objective Data

Some objective information is available in nearly every medical record or becomes available in the usual course of a medical examination. The medical record contains information with regard to demographic

information such as the student's age, race and nationality. Information on religious background is not usually a part of the record but can usually be obtained relatively easily. Similarly, the student's statement of her presenting problem is either revealed at the time she calls to make the appointment or in the beginning of the medical appointment. The date of the student's last menstrual period is usually ascertained as soon as the examiner begins to suspect that the student's symptoms may be related to pregnancy.

Demographic Factors

Table 8

Age and Post-abortion Psychosocial Adaptation

Age	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
19 years	3	1	0	1	1
20 years	8	2	3	2	1
21 years	3	1	1	0	1
22 years	2	0	0	1	1
Total	16	4	4	4	4

Table 8 shows the distribution by age of the subjects on whom outcome data were available. It indicates that all the subjects were between the ages of 19 and 22 years. Fifty per cent of the subjects were in their

twentieth year. Those who were not 20 years old were evenly distributed between the other ages. While there is variation within each outcome category, no pattern emerges to suggest a correlation between age and later adaptation.

Table 9

Race, Nationality, and Post-abortion Psychosocial Adaptation

Race/Nat.	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
White/USA	11	2	3	4	2
Black/USA	2	0	1	0	1
Black / 3rd World	2	1	0	0	1
Asian / 3rd World	1	1	0	0	0
Total	16	4	4	4	4

Table 9 indicates that all of the subjects from Third World countries fell in the progressive or poor outcome categories. This suggests that students from third world countries are subject to the most dramatic changes in psychosocial functioning. Seven of eight of those in the Satisfactory and Mixed adaptation group were white students from the United States as opposed to only four of the eight in the Progressive and Poor outcome groups. In the other categories, Black / USA and Third

World, were considered as one group identified by minority status, this group, five of the 16 subjects (31.2%), tended to fall in the more extreme adaptation categories; four of the eight in the Progressive and Poor groups, but only one of the eight in the Satisfactory and Mixed groups. Thus, minority status appears to indicate increased risk for more dramatic difficulty at the time of diagnosis which, in the course of dealing with the crisis of unplanned pregnancy and abortion, may either be resolved through progressive adaptation or further consolidated leading to poor psychosocial adaptation.

Table 10

Religious Background and Post-abortion Psychosocial Adaptation

Religion	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Catholic	6	2	0	4	0
Protestant	8	1	4	0	3
Other	1	1	0	0	0
Total	15	4	4	4	3

Table 10 shows the religious background of the 15 subjects for whom this information was available and the level of psychosocial adaptation they achieved during the follow-up period. The Roman Catholic subjects fell in the progressive and mixed adaptation groups. Religion appeared to be an

influential factor among those who presented as functioning relatively well at the time of the diagnosis of the pregnancy. All of those whose outcome was rated as mixed were Roman Catholic. Each of them described herself as having worked out a pro-choice position on abortion in contrast to the teachings of the Catholic Church when asked about their religious background. The possibility exists that, despite their position, the Church's opposition to abortion, played some role in their difficulty resolving guilt feelings and closing their experience of unplanned pregnancy and abortion. It is also noteworthy that those who closed the experience and returned to a level of functioning similar to that before the pregnancy were all Protestant.

Circumstances of the First Medical Contact

The length of time since a student's last menstrual period and the initial appointment related to the pregnancy as well as whether that appointment was requested for the purpose of a pregnancy test or for some other presenting problem is information medical personnel would determine during the initial interview with student which could be indicative of later adaptation.

Table 11

Reason for Requested Appointment and Weeks Overdue
at First Medical Appointment

Reason	N	Weeks				
		≤ 1	2	4	5	11
Preg. test	19	4	12	1	2	0
Other	5	1	1	2	0	1
Total	24	5	13	3	2	1

Table 11 shows the number of weeks the subjects' period were overdue at the time of the first medical appointment and whether that appointment was scheduled for the purpose of pregnancy testing or another presenting problem for the 24 subjects for whom this data was available. The bottom row of Table 11 indicates that 75% (18) sought medical advice within the first two weeks following the expected date of their menses. Twenty-five per cent (6) waited until the week of or the week after the date their second missed menstrual period before seeking medical advice. One subject waited 11 weeks after missing her first period before seeking medical advice. This indicates that 75% of the subjects who initially agreed to participate in the study sought medical advice promptly whereas 25% delayed seeking advice for some period of time.

The last column of Table 11 summarizes the number of subjects who presented concern about the possibility of pregnancy as their initial complaint and those whose pregnancies were diagnosed in medical

appointments requested for other reasons. It indicates that 79% of the subjects on whom these data were available asked for an appointment to have a pregnancy test.

Table 12

Weeks Overdue and Post-abortion Psychosocial Adaptation

Weeks	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
≥2	11	1	4	4	2
4 - 5	4	3	0	0	1
11	1	0	0	0	1
Total	16	4	4	4	4

Table 12 shows the number of weeks the subjects in each outcome group were overdue at the first medical appointment. It indicates that all those who were four or more weeks overdue at the time of the first medical appointment achieved either a progressive or a poor rating on later psychosocial adaptation. All of those who achieved a satisfactory or mixed rating arranged their first medical appointment within the first two weeks following the expected onset of their menstrual period as did one of those who achieved a progressive adaptation and two of those whose adaptation was rated as poor.

Table 13

Reason for Requested Appointment and Post-abortionPsychosocial Adaptation

Reason	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Pregnancy	12	2	3	4	3
Other	4	2	1	0	1
Total	16	4	4	4	4

Table 13 shows the outcome group of those subjects who requested the initial appointment for reasons related to pregnancy or for other reasons. The distinction drawn here is between those who cited concerns about pregnancy as their presenting problem when they requested the appointment during which the pregnancy was diagnosed and those who did not. For example, a subject who stated she was afraid she was pregnant or that her period was overdue as the presenting problem was rated as requesting the appointment for reasons related to the pregnancy. Subjects who requested the appointment for a general medical examination, birth control, or a stomach ache were rated in the "other" category.

Twelve subjects' request for the appointment indicated concern about pregnancy. Four subjects requested the appointment for reasons which did not indicate concern about pregnancy. Two of the latter were in the Progressive group and one in both the Satisfactory and Poor outcome

groups. The subject in the Satisfactory group was two weeks overdue and requested the appointment for severe stomach pain which was found to be related to an ectopic pregnancy. The two subjects in the Progressive group were each four weeks overdue. One requested the appointment for birth control, the other complained of a stomach ache and an ear infection. The subject in the Poor outcome group was 11 weeks overdue and requested the appointment for a general medical examination.

Predictors of Outcome - Evaluative Data

The examiner is likely to gather other information and impressions of a more evaluative nature in the course of the medical interview. He or she is likely to form a clinical impressions of the student's psychological style as a part of the interview portion of the medical examination. Additional information about the student's relationship with her sexual partner is also likely to be ascertained. Some judgement about the student's reaction to the possibility of pregnancy is likely to be made. The way the student talks about the pregnancy and whom she plans to turn to for help is likely to be a part of the data available in the course of a sensitive interview which may have potential for assessing the degree of the student's risk.

Clinical Impression of Functioning

A scale was developed for rating the subjects' level of psychosocial functioning and style for handling psychological conflict based on the clinical impression of the interviewer during the interviews prior to the abortion. The purpose of this scale was to organize clinical impressions, not

to make definitive judgements about the subjects' psychological health. It is based on two dimensions. The first is an active/passive dimension related to assessment of the subjects comfort with self-assertion. The second assess the subjects management of impulses along a dimension ranging from depressed to acting-out.

The scale has the clearest behavioral correlates at the extremes. At one end of this two dimensional rating is passive/depressed subject who experiences herself as relatively helpless to effect her destiny and becomes depressed in the face of conflict. A history of psychotherapy for depression was one criterion for assigning this rating. At the other end is the impulsive/acting-out category. It denotes subjects who handle conflict through a pattern of impulsive behavior with insufficient regard for its consequences. For example, the subjects who were involved with much older, married men who worked in their fathers' professions were assigned to this category as were those whose behavior was marked by a pattern of dramatic rebellion.

The scale's middle range is designed to differentiate styles for the management of conflict among those subjects who appeared to be functioning well. The mid-point is an active/rational style. It denotes a style of functioning based on a strong commitment to facing conflict and seeking active mastery through cognitive processing. Those subjects rated as passive/fearful were subjects whose psychosocial functioning appeared to be relatively good but whose style for handling conflict was marked by a less secure sense of their capacity to effect their destiny and a tendency to react fearfully to challenges. Those rated in the impulsive category were also functioning relatively well. They differed from the active/rational group

due to a style based on taking impulsive action to discharge tension when faced with conflict in contrast to the determination of those in the active/rational group's commitment cognitive processing.

Table 14

Clinical Impression of Functioning Style at Time of Diagnosis
and Post-abortion Psychosocial Adaptation

Style	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Passive/ Depressed	3	1	0	0	2
Passive/ Fearful	3	1	0	2	0
Active/ Rational	4	0	3	1	0
Impulsive	2	0	1	1	0
Impulsive/ Acting-out	4	2	0	0	2
Total	16	4	4	4	4

The results of this analysis are displayed in Table 14. It indicates that the subjects whose functioning indicated the most dramatic difficulty in psychosocial functioning at the time of the diagnosis of the pregnancy tended to be in the progressive and poor outcome groups. Two of the

subjects who achieved a poor outcome were in psychotherapy related to depression during the semester in which they became pregnant. One subject who achieved a progressive outcome had been in psychotherapy for depression the previous academic year and gave voice to feelings of passivity and helplessness regarding her ability to effect her life. Another subject who later achieved a progressive outcome gave the impression of feeling passive and helpless in the face of life challenges and said she had been unhappy and felt overwhelmed by the academic demands of college. She later characterized this state as "a real sophomore slump."

Half of those who were later rated in the progressive and poor outcome group gave the clinical impression that they were engaged in patterns of impulsive acting-out. Both of those rated as having a poor outcome were involved with married men in their mid-thirties who worked in their fathers' professions, suggesting that they were acting-out oedipal conflicts. In one of these cases, the pattern of rebellion was of relatively recent on-set in response to a family crisis and was in marked contrast to her report of her previous behavior. Similarly, one of those who later achieved a progressive outcome was engaged in a pattern of rebellion she later described as "going wild." The other subject in the progressive group had become the scapegoat of her peers and had been charged with illegal activity.

In contrast to the dramatic initial presentation of those who achieved either progressive or poor psychosocial adaptations, those in the satisfactory and mixed outcome groups gave the clinical impression of functioning relatively well during the initial interviews. They differed in their style for handling conflict but within the expectable range of good social

functioning. Two in the mixed outcome group gave the impression of reacting fearfully to life challenges and not feeling confident about their capacity to master life challenges. Two others style of handling life challenges struck the interviewer as indicating impulsiveness but of a less dramatic nature than those in the impulsive/acting-out group. One achieved a stable adaptation, the other a mixed outcome. Three of the subjects who achieved a stable adaptation and one in the mixed group were notable in their initial presentation by their rational, cognitive style for dealing with the pregnancy.

The Shock State

Assessing the phenomenology and frequency of the shock state revealed in the initial phase of the project's implementation was one of the goals of the revised project plan.

The Phenomenology of the Shock State. Subjects who responded affirmatively when asked if they had been in a state of shock described it in similar terms. It involved feeling dazed and disengaged from their immediate surroundings and their feelings for a period lasting from a few hours to a day in some case to a more prolonged period of disorientation which continued until the pregnancy was terminated in other cases. One subject described the dazed state by saying she felt as if she had been "punched in the stomach" and the breath had been knocked out of her.

The subjects who reported experiencing this shock state reported that their feelings of disengagement from their surroundings made it difficult for them to integrate information given to them at the time. Many reported

that their strongest wish at the time was to be alone to have time to think. The feeling of estrangement from their feelings made it difficult for them to respond to questions about their thoughts and feelings accurately as they were uncertain as to what they thought and felt. For example, one subject from the early part of the project who participated in the medical interview as it was originally planned reported that she had no recall of how she had answered the questions regarding her social history and feelings about sexuality and the pregnancy. She said she had been "pulling answers from the air."

Another subject described only being aware of the fixed idea that "I'll die if I don't get the abortion done right away" during the medical interview. She was unaware of having any other affect associated with the pregnancy until her roommate burst into tears when told about the pregnancy later that day. The subject reported feeling calmer after talking about her feelings of distress over the next several days and her fixed idea lost the intensity which had marked it originally.

The first subject to describe the shock state reported that she had had a negative pregnancy test the week before and assumed that the second test would also be negative. She attributed the intensity of her shock reaction to her lack of preparation. Lack of preparation, however, was not a necessary part of the shock reaction. A number of subjects reported having thought for some period of time that they might be pregnant but described feeling the shock state when they were told that the pregnancy test which they had requested was positive.

One subject reported that she first began to suspect she was pregnant when her period which was usually very regular did not come on time. She

said she "knew" soon after she realized that her period was late that she was pregnant. She "just kind of had a feeling" that she was pregnant. She waited about two weeks after her period was due to get a test because she knew it would take that long before the pregnancy was far enough along for it to be tested reliably. In spite of having given serious consideration to the possibility that she was pregnant, she reported feeling in a state of shock when she heard the doctor say the test was positive. She said she felt dazed and wanted to be alone to have some time to think. She said, "it was nice to know everyone cared but it was not the right time to talk about it." She felt that cognitive information related to the details of terminating the pregnancy was the most she could assimilate. She said she definitely did not want anyone to pry or explore her feeling about it.

One salient feature of the shock state is that it appears to be invisible to both the interviewer and to the person in the shock state. Subjects who later reported that they had been experiencing the shock state during interviews at the time pregnancy was confirmed appeared to the interviewer to be relatively composed and calm and appropriately involved and attentive. The feeling of estrangement which marks the shock state appears to interfere with the subject's capacity to know whether she is in the shock state. Thus, it appears to be a phenomenon which can only be observed retrospectively. Subjects who were seen shortly after the pregnancy was confirmed and were asked if they were feeling in a state of shock initially denied having feeling of that sort. In subsequent interviews, they reported, in retrospect, that they had been feeling a state of shock state at the time but were unaware of it. Subjects who were first asked about the shock state after it had passed were able to identify it.

Frequency of the Shock Reaction. The tables below related to the frequency of the shock reaction include only those subjects who reported having the shock reaction directly. The relative invisibility of the shock state to both the person experiencing it and to an observer, however, make it difficult to assess its frequency with confidence. Among those subjects who appeared calm, it was difficult to assess whether the subjects' calm was the result of having managed the feelings related to the diagnosis well or the result of a continuing state of shock. Indeed, one subject denied experiencing anything like the shock state but demonstrated other aspects of denial and difficulty holding the affects associated with her pregnancy, suggesting that she had not yet emerged from it and, therefore, was unaware of it. Thus, while the capacity to report having been in a shock state indicates that the subject did experience the shock state, denial of the shock state may not indicate its absence and may be a symptom of a continuing shock reaction.

Table 15

The Frequency of Shock and Number of Weeks
Overdue at 1st Medical Appointment

Shock	<u>N</u>	Weeks				
		≤ 1	2	4	5	11
Reported	7	2	2	3	0	0
Denied	8	1	6	0	1	0
Total	15 ^a	3	8	3	1	0

^aOnly 15 Ss were asked directly about the shock reaction. The subject not included was in such obvious distress about the diagnosis and appeared to be so shocked by it that it was judged to be redundant and insensitive to explore her reaction. Her distressed state continued through the interviews.

Table 15 summarizes the frequency of reported shock reactions among the 15 subjects on whom data related to later psychosocial adaptation was available by the number of weeks their periods were overdue at the first medical appointment. The first column indicates that seven subjects experienced shock and eight did not. Of the 11 subjects who came for the pregnancy test within the the first two weeks after they missed their first menses, four experienced the shock state and seven did not. Of the four subjects who were four or more weeks overdue at their first appointment, three experienced the shock state and only one did not.

This suggests that the shock state is not merely a function of the length of time the subject had to anticipate the possibility of pregnancy but may be related to her capacity to integrate the possibility of pregnancy psychologically. Therefore, the experience of a shock reaction in response to a positive pregnancy test may be an indicator of later psychosocial adaptation.

Table 16

Shock Rating and Post-abortion Psychosocial Adaptation

Rating	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Shock	7	3	0	3	1
No Shock	8	1	4	1	2
Total	15	4	4	4	3

Table 16 presents the psychosocial adaptation outcome rating in terms of shock or its absence. Comparing it with Table 12 which indicates that all of those in the Satisfactory and Mixed Adaptation groups sought medical advice within two weeks after missing a menstrual period, suggests that the presence of the shock reaction may be an early indicator of the direction of the subjects in these two groups' later adaptation. None of those in the Satisfactory Adaptation group experienced shock, while of those in in the Mixed Adaptation group, 75% (3) experienced the shock

reaction. Seventy-five percent (3) of those in the Progressive group experienced shock. Only one of those in the Poor Adaptation group experienced the shock reaction while two others did not. The fourth Poor outcome subject was in such distress about her pregnancy when it was diagnosed in the 11th week that she was not asked directly about the shock reaction.

Duration of the Shock Reaction. Subjects who reported experiencing the shock reaction described it as of varying duration. Some described it as lasting for a period of a few hours to a day or so whereas others described it as lasting until the abortion procedure. This difference may also be indicative of the direction of later psychosocial adaptation.

Table 17

Duration of Reported Shock Reaction and
Post-abortion Psychosocial Adaptation

Duration	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
≥1 day	4	1	0	3	0
Until Abortion	3	2	0	0	1
Total	7	3	0	3	1

Table 17 summarizes the duration of the shock reaction by Adaptation group. It indicates that all of those who experience the shock

reaction in the Mixed outcome group experienced it as relatively transitory, lasting around one day, as did one of the subjects in the Progressive outcome group. Those for whom it was of more prolonged duration, the two weeks between the diagnosis and the abortion as it happened in each case, were in the Progressive or Poor Adaptation groups.

Relationship with the Sexual Partner

Data were gathered on each subject's relationship with her sexual partner: the length of time the couple had dated at the time the subject became pregnant, whether the subject described the relationship as a significant romantic relationship, and whether the relationship continued through the study period. This yielded three categories of relationships: casual relationships in which the subject had only dated her partner a few times or described the relationship as one about which she did not have significant feelings; romantic relationships which were of at least three months duration at the time of the pregnancy and were continuing at the time of follow-up three to six months after the abortion; and romantic relationships of at least three months duration at the time of the pregnancy which had terminated by the time of the follow-up interview.

Table 18

Status of Relationship with Sexual Partner and
Post-abortion Psychosocial Adaptation

Status	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Continuing	7	0	2	4	1
Terminated	4	1	1	0	2
Casual rel.	5	3	1	0	1
Total	16	4	4	4	4

Table 18 summarizes data on the subjects' relationships with their sexual partners in terms of each subject's later adaptation. Five of the pregnancies resulted from sexual activity with partners with whom the subject reported having a casual relationship. Of the 11 who were involved in a romantic relationship with their sexual partner, five of the relationships terminated following the diagnosis of the pregnancy. Seven subjects' relationship with the sexual partner continued through the study period.

Those relationships which were not reported as casual tended to be relatively long-term, averaging 17.3 months in duration. All of the relationships which the subject reported as continuing at the time of the

final research interview (7) were of more than six months duration at the time the subject became pregnant. The average length of these relationships was 20.4 months. The four relationships which terminated following the diagnosis of the pregnancy were of shorter duration with one exception. Two had dated their partner for three months at the time they became pregnant, one for five months, and one for 36 months.

Table 18 suggests some association between the intensity of the relationship and the subject's later adaptation. Three of those in the Progressive group became pregnant in relationships they considered casual, whereas all of those in the Mixed group were involved in continuing relationships (average length 25 months). This suggests that pregnancy is more complicated psychologically when it is experienced as the product of a stable love relationship. The two subjects in the Satisfactory group whose pregnancies were the result of continuing relationships merit individual examination. One was terminated on medical advice because of the likelihood of damage to the fetus. This subject appeared to have had an easier time with the abortion related to not having to make a decision regarding the pregnancy. The other subject worked very seriously on her feelings about the pregnancy as part of a conscious determination to assure herself that she was acting responsibly and facing her feelings about it.

In three of the four cases in which the relationship terminated following the diagnosis of the pregnancy, the subject took the initiative in doing so. In each of these cases the relationship was of under six months duration. One of the subjects in the Poor group had been involved with her sexual partner for three years. He initiated the termination of the relationship. This subject's ability to cope with the crisis of unplanned

pregnancy and abortion may well have been undermined by her partner's decision to terminate their long-term romantic relationship.

Examination of who accompanied the subject to the termination procedure provides another way of assessing the relationship with the sexual partner. Presumably, both partners in a long-term romantic relationship in which the pregnancy is perceived as a product of love would want to be together at the time of the procedure.

Table 19

Companion to Abortion Procedure and Post-abortion
Psychosocial Adaptation

Companion	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Sexual Partner	5	1	1	3	0
Female Friend	6	1	1	1	3
Family Member	1	0	0	0	1
Went Alone	4	2	2	0	0
Total	16	4	4	4	4

Table 19 shows who accompanied the subject to the abortion procedure. Five were accompanied by their sexual partner, six by a close female friend such as a room mate, one relied on a family member, and four went to the procedure alone. All of the subjects who were accompanied by their sexual partner described the relationship as an on-

going romantic relationship except the one subject in the Progressive group. Her sexual partner was a friend with whom she did not have a romantic relationship. He felt responsible for the pregnancy and to support her through the termination procedure by paying for it and traveling a considerable distance to be with her through the procedure. Although this subject reported feeling a special bond to this sexual partner as a result of his support through the abortion process, she said she did not have romantic feelings toward him and did not perceive the pregnancy as a product of love.

Of the six subjects who were accompanied by a female friend, the two subjects in the Satisfactory and Mixed groups were involved in on-going romantic relationships with men at such a distance from the campus that it was not feasible for their partners to be with them. In both cases, the timing of their pregnancy was such that it was not possible to schedule the abortion procedure to coincide with a college vacation. Both expressed regret that their partner could not be with them. The subject in the Progressive group who was accompanied by a female friend became pregnant as the result of a casual relationship as did one of the subjects in the Poor group. Another subjects in the Poor outcome group was the one whose long-term romantic relationship was terminated by her partner when she became pregnant. The other in the Poor group was engaged to her sexual partner, chose to keep the pregnancy secret from him until the night before the procedure and insisted on going to the procedure with a female friend rather than her partner, reflecting her ambivalence about both the abortion and the relationship.

Only one subject was accompanied by a family member, an older brother in this case. She relied on his help in recognizing the symptoms of pregnancy and required his encouragement to test the reality of her fear that her symptoms might be related to pregnancy through seeking medical advice. Her turn to the comforts of family relationships rather than relying on extra-familial supports throughout the pregnancy and abortion process is indicative of a regressive response to the crisis which predicted her later difficulties in psychosocial adaptation.

One of the most interesting feature of Table 19 is the four subjects who went to the abortion procedure alone. In three of the four cases, their choice to manage the experience without the support of another person appears to indicate their determination to manage it through relying on their own resources rather than giving in to the comforts of dependency gratification. Thus, it may be an indicator of their later adaptation. The fourth subject circumstances were atypical. Her abortion was an emergency response to an ectopic pregnancy and, although she was unaccompanied, this was related to the emergency rather than her choice. Her response will be discussed below.

Thoughts about Mother

Table 20

Maternal Involvement in Subject's Thinking about The Pregnancy
and Abortion and Post-abortion Psychosocial Adaptation

Thoughts	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
None	7	3	2	2	0
Longing for Mother	5	1	2	2	0
Prominent in Thinking	4	0	0	0	4
Total	16	4	4	4	4

Table 20 shows the results of examination of the subjects' interview material for references to their own mothers. It revealed two classes of reference to the mother; direct expression of longing for mother and the degree of the mother's prominence in the subject's thinking about the abortion. Seven subjects made no reference to longing for mother nor did their mothers appear to have a significant role in their thoughts about the pregnancy and abortion.

Expression of longing for the mother was evident in five of the 16 subjects. It ranged in level of intensity from rational/intellectualized in one case (a Satisfactory Adaptation subject who felt it was important for both mother and father to know about the pregnancy and abortion as a

significant experience of her life) to occasional wishes to turn to mother for comfort in two cases (one Progressive subject wished to "cry on mother's shoulder", one Mixed subject thought of her mother and the comforts of sleeping in her own bed at home), to quite powerful regressive wishes in one instance (a Satisfactory Adaptation subject reported feeling intensely lonely, describing it as a "loneliness that could only really be soothed by my mother and my father or, more accurately, my mommy and my daddy.") One subject who achieved a Mixed Adaptation did not refer directly to her mother but talked about wishing to be able to talk to a younger sister toward whom she had played a maternal role. She was scored positively for this dimension because her wish appeared to be to get maternal comfort from the sister she saw herself as having mothered. She felt regret that her sister was not yet old enough for her to turn to.

The subjects' mother played a prominent role in the thinking related to the abortion decision of all four subjects who achieved a Poor Adaptation. Assessing the prominence of the subject's mother in her thinking about the abortion decision required more subtle judgements. The most direct was a Third World subject whose decision to terminate the pregnancy was based on her geographic distance from her mother. She wished her mother was living in this country so that the subject could continue the pregnancy and have her mother's help in raising the child. Another subject was unable to decide whether to continue the pregnancy or terminate it until after she visited her mother and father to discuss the decision. Two subjects framed their experience of the pregnancy as a violation of their mother's values. One subject described her feelings about the pregnancy primarily in terms of her anger at herself for her failure "to

live with the consequences" of her actions, a tenet she claimed her mother valued highly. (This was the subject who turned to her brother around the diagnosis of the pregnancy and to accompany her to the procedure.) The other subject betrayed significant conflict between her mother's rigid view of sexual morality and what she saw as her recently divorced father's betrayal of those views. She espoused values consistent with her mother's views but acted in violation of them.

Two of the subjects in the Progressive group made references to their parents in their thinking about the abortion decision but these references did not focus on the mother per se and were of a different quality. One said she thought it would "destroy" her parents if they found out about her pregnancy and abortion. When asked what she thought would happen to them, she said she thought her father would withdraw emotionally from the family and her mother would actually leave the family for a period of time, perhaps going to live with mother's sister. The subject said, "I would rather have something happen on the operating room table than have my parents find out about it." The other subject in this group said her father would "kill" her if he found out about the pregnancy.

For both of these subjects, their concern about the destructive consequences of their parents learning about the pregnancy appeared to serve the function of closing the option of turning to their family of origin for help in mastering the crisis and, thereby, gave impetus to a thrust toward independent mastery. Thus, while those in the Poor group appeared to experience the pregnancy and their decision to terminate it in the context of a dialogue with their mothers (either through direct discussion with their mothers or an internal dialog with memories of the mother), the two in the

Progressive group who made direct reference to their families of origin appeared to experience the pregnancy and abortion experience as separating them from their families and pushing them toward independence.

Expression of longing for mother did not appear to be significantly related to outcome. The more critical variable related to the subject's relationship with her mother appeared to be evidence that the subject's mother featured prominently in her thinking about the abortion. The fact that all of those in the Poor Adaptation group seemed to involve their mothers in their thinking about the abortion decision, either by consulting her directly, as was the case in one instance, or making the decision in the context of an internal dialog with memories of mother, as appeared to be the case in the three other cases, appears to be a predictor of poor outcome.

Thoughts about Motherhood

Table 21

Consideration of Continuing the Pregnancy and Post-abortion Psychosocial Adaptation

Considered	<u>N</u>	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Yes	3	0	0	1	2
No	13	4	4	3	2
Total	16	4	4	4	4

Table 21 shows the findings with regard to how many subjects gave evidence of actively considering the option of continuing the pregnancy. Continuing the pregnancy was not considered as a viable option by 13 subjects. They experienced the pregnancy and the motherhood that would follow it as an event they were not prepared for and could not consider. These decisions appeared to be based on their sense of personal unreadiness. Several of the subjects who were involved in stable romantic relationships received offers of marriage from their sexual partners when the pregnancy was diagnosed. These offers were ruled out immediately by most of the subjects. Only three subjects gave any evidence of considering continuation of the pregnancy as a possibility.

The subject in the Mixed group reported that she discussed the option of continuing the pregnancy with her sexual partner when she began to suspect that she might be pregnant. They both agreed that she was not ready to have a baby and neither of them was ready to get married, so she had no choice but to have an abortion. She reported that she felt "sad" about this decision. Her sadness bothered her, she said, because "good decisions are the ones you don't have regrets about." Two subjects in the Poor group gave active consideration to continuing the pregnancy. One subject described fantasies of marrying her sexual partner and raising their child together or, if he refused, raising the child as a single mother. The other subject described the various arrangements for child care she had considered to enable her to continue the pregnancy. It seemed clear that she would have continued the pregnancy if she had found an acceptable way to

do so. Since none of those she considered could she envision without dropping out of school, she decided to have an abortion.

Table 22

Reference to "Killing" the Baby and Post-abortion
Psychosocial Adaptation

Reference	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Direct	3	2	0	1	0
Disguised	3	1	0	2	0
None	10	1	4	1	4
Total	16	4	4	4	4

Table 22 shows the references the subjects made regarding the abortion as "killing" the baby. Three subjects made reference to their abortion decision using the verb "to kill." Three subjects made more veiled reference to the same idea but avoided using that verb. Ten subjects gave no indication of thinking of the abortion as "killing" the fetus in the first interview.

Among those subjects who referred directly to "killing" the fetus, two were in the Progressive group. One said she wished the pregnancy had come at another time in her life when she would be prepared for it. She said it

would be so disruptive of her life now that she would end up resenting the child. She was afraid this was selfish of her and said, "Why should I kill the baby in me to preserve my own future?" When asked if she thought about the embryo as a baby, she replied that she did not but did think of it as having "baby potential." She said she does her best not to think about it as a baby because it would only make it harder to do what she knows she has to do. She noted that she did find herself staring at baby bottles in the drug store or at infants when she sees them in the street.

The other progressive subject said that it used to be that she couldn't stand babies but that now she occasionally thinks she would like to continue the pregnancy. Abortion "is killing someone," she said in a musing tone. Then, as if pulling herself back from that thought, said, "No, it is the right thing to do." She then said that when she thinks about all this "my thoughts go crazy," and launched into a description of her career plans, the money she would make and the nice things she would buy for herself. These latter thoughts seemed like defensive fantasy which served the purpose of warding off further fantasy about the fetus as a baby.

The subject in the Mixed group was the one described above as giving active consideration to continuing the pregnancy. She explained that she came from a devout Catholic home but had thought through the difference between her own religious beliefs, which she characterized as "my religion," and the beliefs of the Catholic church. "What's more important, killing something or ruining my life?" she asked rhetorically.

The subjects who made more veiled references did so in various ways. One subject in the Progressive group said she did not allow herself to think about the fetus as a baby because she has too much to do before she

will be ready to take on the responsibilities of parenthood. She said she thought it was "selfish" to put her life before that of the fetus, but she felt she had no choice. She explained that she is a convinced Catholic and believes that abortion is a mortal sin. She believed that she would be able to confess the sin some day and that God would understand why she had to do what she felt she had to do.

Two subjects in the Mixed group offered elaborate explanations for why they did not think of the fetus as a baby, suggesting the use of rationalization as a defense to disguise concern that it was. One said she thought of the embryo as "a growth to be removed" and said she felt sorry that she can't let herself think of it as a baby. She hoped for a time when she could enjoy a pregnancy but said that this was not the time. She then described the films she had seen on abortion as part of her Catholic education which showed "bloody fetuses." She said these pictures were of much later abortions than hers would be. Hers was "just a mass of cells." She said, "the films were disgusting but abortion is not." She thought they should have shown films of unwanted children and the problems they have instead. The other subject offered a detailed explanation for why it was necessary for her to terminate the pregnancy and why she did not consider it to be "taking a life." Her tone was adamant, as if she had to convince the interviewer of the morality of her decision.

Second Interview Indicators of Later Adaptation

It was possible to identify indicators of later level of adaptation for some of the subjects from analysis of the second interview material but not for others. Those in the Progressive and Poor groups showed clear signs of

the direction of their later adaptation in the interview following the abortion procedure. Those in the Satisfactory and Mixed groups appeared to be in the process of working through the meaning to them of the abortion and, with two exceptions, the psychological closure of the experience which differentiated these two groups was not evident during the second interview.

Progressive / Poor Adaption. All of the subjects in the Progressive group showed clear indications of their progressive adaptation during the second interview. Each began the interview by talking about feeling much better since the abortion and manifested a noticeably upbeat mood. Each had taken active steps to master social problems which troubled them in the pre-pregnancy period and each expressed the intent to put the abortion behind her and to get on with her life.

The subjects in the Poor group gave evidence of their later difficulties in adaptation in the second interview. Both subjects who had histories of depression and passivity and who had psychiatric hospitalizations during the follow-up period showed psychiatric symptoms in the second interview, one reported continuing depression and the development of phobia related to the abortion, the other reported using dissociation as a defense during the procedure and showed symptoms of continuing dissociation. The two subjects who had histories of impulsive acting-out which became more entrenched by the end of the follow-up period described the abortion experience with a bravado indicative of difficulty tolerating the affect associated with the abortion. Both laughed as they talked about the abortion procedure, describing it as if it had been

a tremendously ironic and entertaining experience. This appeared to be a reaction formation to their feelings of sadness and guilt associated with the abortion procedure.

Satisfactory / Mixed Adaptation. None of the subjects in these two groups gave clear indications of the direction of their eventual resolution as those in the Progressive group. Two subjects in the Satisfactory group were not seen until considerably after the procedure. One did not come in for the first research interview until six weeks after her pregnancy was terminated on medical advice. At that point she had closed the experience successfully, was contained, composed and business-like in her presentation. The other subject did not come for a second research interview and was only seen for the final interview at the end of the semester, 12 weeks following the abortion. By that time she had closed the experience but it was not clear when in that period she had succeeded in doing so.

Both of the other subjects in the Satisfactory group were still pre-occupied by the abortion experience when they were seen for the second interview about two weeks following the procedure. Both were in turmoil related to strong wishes to marry their sexual partner and have a child which had emerged in the period after the abortion. Both were offered counseling to deal with the distress which accompanied these feelings. Each was seen for several sessions in which they worked on issues related to their post-abortion adjustment.

All of the subjects in the Mixed group were struggling with their feelings about the abortion when they were seen following the abortion. This struggle continued throughout the follow-up period. One made use of

additional counseling sessions both during the period prior to the abortion and following it. She had several sessions on her own and two sessions with her sexual partner. Her sexual partner was in turmoil about the ethics of abortion which appeared to place an additional burden on her through the pre-abortion period. Later they were seen to work on issues in their relationship.

Response to Research

The last part of the third research interview asked the subjects for their reactions to their participation in the research project. They were also asked if they would have participated in a program of counseling related to their pregnancy and abortion experience if one had been offered to them. Some subjects were asked if they thought they would have been interested in a peer counseling program and whether they would be interested in being a counselor in such a program if one were developed.

Table 23

Attendance at Final Interview by Outcome Group

Attend?	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Yes	13	4	4	3	2
No	3	0	0	1	2
Total	16	4	4	4	4

As Table 23 indicates, only 13 of the 16 subjects came for the final interview. One of the Poor Adaptation group had been hospitalized for psychiatric reasons and was unavailable for the interview, the other did not respond to requests for a final interview. It was later learned that the latter was pregnant again at the time attempts were made to contact her. One of the subjects in the Mixed group who was not seen until 10 weeks following the abortion for the second interview, scheduled a third interview for three weeks later but failed that interview and attempts to reach her to reschedule the interview were unsuccessful.

Table 24

Response to Research Interviews and Post-abortionPsychosocial Adaptation

Response	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Helpful	7	3	2	2	0
No impact	3	1	1	0	1
Difficult/ Unhelpful	3	0	1	1	1
Total	13	4	4	3	2

Table 24 shows the results of the analysis of the subjects response to the question about how they had experienced the process of participating in the project. Of the 13 respondents, seven said they found it helpful or very helpful to talk about their experience as a part of the project. One, for example, said, the project "gave some purpose to what I was going through." Three felt that it had made no difference to them, saying they had participated to aid in the research and had felt unaffected by the process. The subjects in the Progressive and Satisfactory groups who responded in this way did not become involved in the project until after their pregnancies were terminated, by which time both had closed the experience. The style of the subject in the Poor group who reported being unaffected by the process was marked by bravado. Although she was clearly in difficulty, she declined offers to explore her feelings further. She said that other students might need counseling to deal with their experience but she did not because "I haven't been pampered."

Three subjects reported that the experience had been difficult or unhelpful to them. The subject in the Satisfactory group who responded in this manner was one of those who had participated in individual counseling with the researcher in addition to the scheduled research interviews in response to strong regressive wishes brought up by the pregnancy and abortion experience. Her response to this question related to the individual counseling. She said that she had felt like she was "caught in a deep hole of sadness" at the time and that she was "wallowing" in those feelings even though she "put on a happy face" in the sessions. She felt ambivalent about the sessions and finally decided that she wanted to devote her energies to peers and social activities, so she dropped out of counseling.

The subjects in the Mixed and Poor groups both felt the interviews were difficult because of longings precipitated by them. The subject from the Mixed group was geographically separated from her sexual partner and complained that she had no time "let down and cry" about the abortion. She said she needed "a week of collapse" to work through her grief. She said she resented the research interviews because "I want my periods of collapse to be when I need them rather than on a schedule. I need close friends to talk to, someone who can hold me at 2:30 AM." She was the only subject who responded that she felt it would have been easier for her to talk to a woman.

The subject in the Poor group said that she found the first interview helpful but found the later interviews difficult because it required her to think about the abortion which she had tried to put away and because the interviews were so spread out in time. She said that she thought counseling should be required but the Health Service would have to take the initiative. If she had to call to initiate the appointment she would not do so and if the counselor did not bring up the abortion, she would not say anything about it. Her response was interpreted as indicating that she wanted more aggressive intervention. The process of the interviews stimulated unresolved feelings and she expected the interviewer to take the lead in insisting that she work on them. She was offered continuing counseling during both the second and third research interviews and declined to participate.

Table 25

Subject Report of Whether They Would Have Participated
in Counseling by Later Adaptation

Participate? N	Outcome Groups			
	Prog.	Sat.	Mixed	Poor
Yes 6	0	2	3	1
No 6	4	1	0	1
Total 12	4	3	3	2

Table 25 shows the response of the 12 subjects who were asked if they would have participated in counseling if they had been offered the opportunity to participate in a counseling program instead of a research project. The sample was evenly divided between those who said they would have participated and those who would not. With the exception of those in Progressive group, all of those who found counseling helpful or difficult said they would have participated in counseling if it had been offered to them. All of those who said that talking about their experience made no difference to them (one in each of the Progressive, Satisfactory and Poor groups) said they would not have participated. Both of the subjects in the Progressive and Satisfactory groups did not become involved in the project until after their abortions, possibly a reflection of their intent to master the experience independently. The subject in the Poor group appeared to be

equally determined to handle the experience independently. She appeared to have marked difficulty in doing so.

The Progressive groups response is particularly interesting. The three who found the experience helpful all said that they would have declined an offer of counseling. This may be an indicator of their thrust toward independent mastery and a concern on their part that counseling would make them feel more dependent. One said she would have been more interested if she had been offered peer counseling. Another said that she felt counseling had a "bad name" and it might have helped her participate if it had been framed as "to talk about the experience" rather than as counseling per se. The third said that she thought counseling should be "compulsory" and that she definitely would not have participated in peer counseling.

Table 26

Preferred Mode of Counseling and Post-abortion

Psychosocial Adaptation

Preference	<u>N</u>	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Peer	3	1	1	1	0
Professional	4	1	1	2	0
Total	7	2	2	3	0

Table 26 shows the responses of the seven subjects who were asked whether they would have preferred group and/or peer counseling to the individual interviews they had with a health professional. None was interested in group counseling. Three said they would have preferred individual peer counseling. Four said they felt more comfortable talking to a professional on an individual basis. The subject in the Mixed group who found it difficult to talk to a man said it would have been easier to talk to a peer counselor. The subject in the Poor group who found the length of time between interviews difficult was not asked if peer counseling would have been more palatable to her. The degree of authority she expected a counselor to take sounded incompatible with a peer counseling program.

One Year Medical Record Review

The medical and counseling service records of the study participants were reviewed by the Medical Director and the Director of the Counseling Service one year following the completion of the project to assess post-abortion utilization of the health service. With regard to utilization of the counseling service, the two subjects in the Poor Adaptation group who had psychiatric hospitalizations for depression during the study were both seen for continuing treatment in the following year. One other subject was seen for crisis counseling regarding fears that she might be pregnant again one year following her abortion, suggesting an anniversary reaction. That subject had achieved a mixed adaptation during the study period and had made use of the counseling option offered to her during the study.

Three subjects had negative pregnancy tests in the year following the project. All were in the Satisfactory group. Two of them were seen for

contraception as was one in the Progressive group and one in the Mixed group. The subject in the Mixed group was the one who sought crisis counseling at the same time regarding fears of pregnancy. Five were not seen in this period. Four were seen for run of the mill ailments such as virus infections, sprains, or vaccinations necessary for the Junior Year Abroad program.

CHAPTER 4

DISCUSSION

Introduction

In view of how much the subjects had in common (single, college students, unplanned pregnancy and abortion), the degree of variation in outcome is startling and suggests the variable effect of a psychological crisis stemming from the experience of unplanned pregnancy and abortion. The idea that this experience creates a psychological crisis will be explored in this chapter with special attention directed to assessing those aspects of the data which appear to influence the subjects' resolution of the crisis in the follow-up period. The crisis will also be explored to assess its stages and to explore the psychodynamic factors which appear to be related to the way the crisis is experienced and resolved. Finally, the limitations of the study will be discussed.

Abortion as Life Crisis

The finding support the idea that unplanned pregnancy and abortion stimulates a crisis in the psychological development of college women. The subjects in this sample met the criteria for a psychological crisis: a period of psychological disequilibrium which marks the acute crisis state and variability in level of functioning following the resolution of the crisis. Most of the subjects found the experience of unplanned pregnancy and

abortion an emotionally distressing event which it took some time for them to put in perspective. In some cases, this distress was so severe as to require them to rely on primitive defense mechanisms such as dissociation and denial. Even among those who returned to a level of functioning similar to their prior level of functioning, two experienced distress severe enough to request additional counseling to work on issues stirred up by the experience. Only two of the 16 subjects for whom follow-up data were available appeared to come through the experience without some disruption in their functioning.

The subjects appeared to establish a new equilibrium in the months following the crisis. Fifty per cent of those for whom outcome data were available, those in the Mixed and Poor groups, continued to have difficulty in functioning related to the pregnancy, in some cases so severe as to require hospitalization for psychiatric reasons. Of the remaining 50%, only those in the Satisfactory group returned to roughly the same level of functioning as that they showed before the crisis. The subjects in the Progressive group showed marked improvement in functioning even though they appeared to be among the most vulnerable initially, suggesting that they experienced the crisis as a challenge which mobilized their energies toward mastering developmental conflicts.

If, as will be argued, unplanned pregnancy and abortion stimulates a developmental crisis in college women, we must begin with a discussion of the psychological process stimulated by pregnancy, how that process is experienced at different levels of psychological development, and the psychodynamic and developmental tasks involved in terminating a pregnancy among college women.

The Developmental Psychodynamics of Pregnancy

From a psychodynamic perspective, the biological event of pregnancy is a charged psychological event which normally is accompanied by powerful wishes and fantasies stemming from the unconscious which serve the function of preparing the pregnant woman for the transition from being a child in her own family to being a mother to a child. Thus, they both anticipate the future and reflect the past. Expected anticipatory fantasies include those about being a mother and caring for the anticipated baby.

These fantasies, however, have a history dating back to early mothering fantasies reflected in childhood doll play. The child's activities directed at caring for the doll contain both the progressive thrust involved in fantasies associated with growing up and being a mother like her own mother as well as providing vicarious mothering through the child's identification with the doll as the recipient of her maternal ministrations. Thus, the child is typically both mother and mothered doll. This provides a vehicle for working on disappointments in the child's experience of having been mothered through providing the kind of mothering the child wished she had experienced through providing it to the doll.

According to this view, pregnancy is expected to stimulate fantasies of being a mother and memories of the experience of being mothered. Psychological readiness for motherhood depends on how advanced a woman is along a developmental continuum which ranges from those for whom the wish to be mothered is dominant as it is with the young child to those for whom the wish to mother is dominant as in the psychologically ready adult. Progression along this continuum is one of the psychological tasks of

adolescence and young adulthood. It is influenced in part by age and psychological maturity and in part by the adequacy of the pregnant woman's own experience of having been mothered.

The early adolescent (age 13 and 14) is unlikely to be psychologically prepared for motherhood. Through adolescence and young adulthood many women achieve psychological readiness for motherhood, beginning as early as around age 18 in some cases. The literature which attributes child abuse and neglect to the mother's disappointed wish to find mothering from her child suggests that not all women acquire this psychological readiness with age. While abuse and neglect are more common among women who became mothers in adolescence, it is not limited to them.

This psychological readiness bears a curious relationship to social readiness (the acquisition of the social supports for child rearing such as a stable relationship with an adult outside the family of origin and the financial resources to support the child). The more psychologically ready the woman is, the greater her investment in assuring that her child will be adequately cared for and, therefore, the more concerned she is likely to be about her own social readiness. Those who are least ready and most invested in the baby as a potential source of mothering are most likely to be unconcerned about the realities of her social readiness.

This view is supported by the frequent observation of those who work with pregnant early adolescents who want to continue their pregnancies. These young mothers-to-be often appear unconcerned about the social realities of caring for a baby. They appear to be dominantly invested in think of the baby as if it were a doll they will enjoy nurturing at their own convenience and be able to lay aside when it suits them,

betraying their wish to be mothered through the vicarious experience of mothering the baby.

The Psychodynamics of Abortion

In the case of a planned and hoped-for pregnancy in a psychologically ready woman, the fantasies stimulated by pregnancy are usually a source of pleasure. In the case of an unplanned and unwanted pregnancy, the preparation for motherhood associated with these fantasies may be as unwelcome as the pregnancy itself. This poses for the woman who plans to terminate her pregnancy the task managing the wishes and fantasies mobilized by the experience of pregnancy. The pleasure associated with these fantasies can be expected to be a source of anxiety, pitting the pregnant woman's conscious intention to terminate the pregnancy against unconscious, biologically stimulated forces directed toward preparing her for motherhood.

Wallerstein et al. (1972), struck by the capacity of some of their subjects to inhibit fantasy about the fetus as a baby and preoccupation with abortion as "killing the Baby", propose the concept to "adaptive denial" to explain the psychological process involved in their subjects who were able to "close" the pregnancy and abortion experience and "lay it to rest." They do not elaborate on the psychological process involved in "adaptive denial" or how it could be distinguished from maladaptive denial. Thus, it is presented as a descriptive concept.

Schaffer and Pine (1972) propose a dynamic hypothesis to explain the developmental achievement involved in those who manage to resolve the conflicts stimulated by the pregnancy and abortion experience in a

psychologically progressive way. Similar to the argument presented above, they began from the assumption that among adolescents the experience of pregnancy stimulates a normative conflict between wishes to be mothered and to be a mother. Exploring this concept, they found among their sample of adolescents, most of whom were between 14 and 17 years old, that the wish to be mothered found expression in some cases through a passive turning to mother for help in identifying the symptoms of pregnancy and making plans to deal with it. In other cases, the wish to be mothered found expression through active indulgence of fantasies of mothering the baby which they found to be similar to the younger child's doll play. Another group of their sample whom they found had a progressive resolution to this crisis were not invested in either their own mothers or in fantasies about the fetus as a baby but were invested in the plans to terminate the pregnancy. They found that these subjects experienced the abortion decision and process as being a mother to themselves, a developmental transition fostering an increased sense of autonomy and mastery: "these girls emerged from the experience, at least in the short run, with a new and important sense of mastery of both their own bodies and the external world" (p. 522).

In summary, then, a psychodynamic, developmental view of the pregnancy and abortion process maintains that pregnancy stimulates charged pleasurable fantasies related to the prospect of motherhood. Those who intend to terminate the pregnancy have the psychological task of managing these fantasies. This task might be characterized as a psychological abortion which accompanies the medical process of abortion. Managing these fantasies requires a psychological process which has been

characterized as "adaptive denial". It is adaptive in that when it is successful it promotes successful psychosocial adaptation. It is denial in terms of the function it serves, not the psychological mechanisms it relies on. It serves to contain wishes, fantasies and feelings which tend to undermine successful post-abortion psychosocial adaptation. As will be indicated in the discussion below, a variety of psychological mechanisms are used to achieve this goal. In most cases, the mechanism of denial is not an indicator of "adaptive denial".

The mothering fantasies contain some level of conflict between wishes to be a mother and to be mothered. The pregnancy and abortion experience may be managed in a developmentally progressive way if the process of abortion is experienced by the woman as a mothering experience, in this case, as being a mother to herself by putting off child bearing until such time as she is psychologically and socially ready for it. In cases where the wish to be mothered is a dominant feature of the woman's psychological experience, a regressive constellation may result. In cases where the wish to be a mother is dominant, a more prolonged process related to working through grief attendant to the abortion may be required.

Psychological Development in the College Years

One of the major psychological tasks of the transition to adulthood in the college years is the achievement of a secure sense of autonomy as a psychologically independent adult. This task involves a psychological reorientation from a predominant psychological investment in the family of origin to a sense of self as a psychologically independent, autonomous adult. This progression usually moves along two tracks. One is related to

independence of interests and activities developed through the exercise of independent choice, as Arnstein (1980) points out. The other is related to finding satisfactory gratification for libidinal impulses outside the family of origin and developing a capacity for intimacy and stable affectionate relationships (Erikson, 1959).

Students who experience their interests and activities as dominantly an extension of those of their family are at the least differentiated level. As differentiation from the family of origin is achieved, activities and interests are increasingly experienced as autonomous self-expression. Declaring a major during the sophomore year is often experienced as a problematic confrontation with this issue, requiring the student to claim an area of independent interest.

The second track is the source of libidinal gratification. At the least differentiated level, the family is the most significant source of libidinal gratification, especially of needs for soothing and comfort. With increased levels of differentiation, extra-familial relationships become adequate substitutes for the soothing function of the family. "Home sickness" is the most usual expression of longing for the soothing and comfort of the family of origin and reflects some difficulty in this area.

As confidence in the capacity to find extra-familial sources of soothing and comfort is achieved, developing intimate relationships outside the family of origin becomes increasingly important. Success in finding a satisfying stable intimate relationship outside the family of origin and the consequent reorientation of libidinal needs (both as the source of soothing as well as an expression of sexual impulses) from within to outside the family of origin solidifies the sense of psychological autonomy. Work on

this task usually begins with exploration of intimate relationships through dating and exploratory sexual activity. As progress is made on this task, increasing stability in relationships and a psychological investment with the intimate other is expected to emerge. Psychological readiness for motherhood is likely to develop as a stable, committed relationship becomes the primary source of libidinal investment.

As developmental progression in various developmental tasks usually moves in a parallel fashion (A. Freud, 1965), success in forming close ties with peers, in finding satisfying social activities, and in committing oneself to interests and career aspirations separate from those of ones family all contribute to a sense of psychological autonomy. Similarly, difficulty in one aspect of this progression is likely to be reflected in other areas.

Considerable variation in level of psychological development is to be expected in a sample of college students of the same chronological age based on differences in the adequacy of their pre-college development (Hatcher, 1973). Similarly, change is to be expected in any particular student over time as she matures during the college years. Some subjects can be expected to be working on the issue of differentiating from the family of origin through claiming or attempting to claim interests separate from their family of origin and finding adequate sources of comfort outside the family to sustain geographic distance from the family. Others can be expected to have achieved more success in differentiating from the family and to be dominantly invested in pursuing independent interests and in solidifying extrafamilial relationships as the source of soothing comfort and sexual expression.

Sex, Pregnancy, and Abortion in the College Years

Sexual intercourse may occur at any point in this developmental process; as part of efforts to cope with longings for comfort from the family of origin, as a part of a more mature student's initial exploration of intimacy with a partner in whom she has little psychological investment, as part of a relationship for which the student has hope for some future but has not established a stable, psychologically intimate relationship, or as part of a stable intimate relationship. The "home sick" freshman struggling with wishes for the comfort of her parents who becomes involved in a sexual relationship is likely to experience it in significant part as a source of the comfort she misses from home. Thus, her level of investment in the relationship is likely to be quite different from that of a student who has achieved relative security in her ability to find comfort in peer relationships and experiences the sexual relationship in the context of exploring intimacy and commitment.

When pregnancy results from the intercourse, its meaning to the student can be expected to vary according to her level of psychological autonomy and the degree of her involvement with her sexual partner. The balance and intensity of the conflict between wishes to be mothered and to be a mother stimulated by the pregnancy will be influenced by a subject's relative position along this developmental continuum. Those who are least differentiated from the family of origin and, therefore, most dependent on the family as the source of gratification can be expected to experience the pregnancy as stimulating wishes to be mothered. These wishes may be expressed through mothering fantasies but the dominant theme of those fantasies is likely to focus on the pleasures of caring for the baby as an

exclusive mother-child dyad. Those who are most differentiated from the family of origin and who have made a significant commitment to their sexual partner as the primary source of intimate gratification can be expected to be closer to psychological readiness for motherhood and, therefore, to experience the pregnancy as stimulating wishes to be a mother as an expression of that intimate relationship. In this case, the mothering fantasies are likely to be triadic, involving the sexual partner as well as the baby and the mother.

The task of achieving a satisfactory psychological abortion can be expected to change with the subject's position on this continuum. Among those who are least differentiated from the family of origin, achieving a satisfactory psychological abortion involves renouncing wishes to be mothered in order to be a mother to oneself. For those who have achieved a greater degree of differentiation from the family of origin but have not yet committed themselves to a stable intimate relationship, the pull of wishes to be mothered and to be a mother may be least powerful as some distance from the former has been achieved while the latter has not yet been achieved. In this case, the readiness for psychological independence in the absence of the psychological readiness for motherhood which is associated with commitment to stable intimate relationship may facilitate experiencing the abortion as being a mother to oneself.

Among those who are most differentiated from the family of origin and who have made a commitment to a stable intimate relationship, the task of achieving a satisfactory psychological abortion presents a different set of complications. In this case, the psychological readiness for pregnancy is in conflict with the subject's perception of her social readiness. The decision

to terminate the pregnancy means renouncing, atleast of the time being, psychologically appropriate wishes to be a mother, stimulating a greater sense of loss attendant to the abortion procedure. This sense of loss may require the working-through process of a grief reaction. It may also stimulate a greater degree of guilt.

Risk Factors

If the experience of pregnancy and abortion stimulates a developmental crisis in college women, it raises the question of what factors can be identified by health service personnel which are predictive of later psychosocial adaptation. The finding support the observation of Wallerstein et al. (1972) that the degree of psychological turmoil evident at the time of medical confirmation of pregnancy and the weeks following are not reliable indicators of post-abortion outcome. This is important in light of the fact that health service personnel have tended to rely on evidence of psychological turmoil as the primary indicator of risk in pregnant students. Thus, a program designed to assess risk and provide supportive services to pregnant students will need to identify other criteria for assessing risk.

Although sufficient information was available for only 16 subjects, making it difficult to assign a high degree of confidence to any particular factor as associated with the differences in outcome, the findings do reveal a number of factors which appear to have a relationship to the outcomes achieved. Some elements of the subjects' social history appear to represent risk factors.

Pre-Pregnancy Psychosocial Functioning

As developmental progression usually takes place with relative harmony between different lines of development, the level of psychosocial adaptation achieved prior to the pregnancy was expected to be predictive of the degree of risk the student would bring to managing the crisis. As originally conceived, level of psychosocial adaptation prior to the pregnancy was to be assessed during the medical interview at the time the subjects were recruited for the sample. It became clear as the study was implemented, however, that the structured interview used to assess it was experienced by the subjects as intrusive. Therefore, the project had to rely on the research interviewer's clinical impression of the subjects functioning style prior to the pregnancy as reported during the first research interview.

This "measure", rough though it was, did yield useful data (see Table 14). The sample fell roughly into two groups. One group, the high risk group, reflected the extremes of the continuum, showing difficulty in psychosocial functioning expressed in either a passive/depressed style, marked by having sought sought previous psychotherapy for depression, or an impulsive/acting-out style, marked by a degree of impulsive action and an absence of appropriate regard for the consequences of their action. These were the subjects which the interviewer had the most concern about after the first interview. The other group, the middle range group, demonstrated variation in style of functioning within the range of functioning associated with students who are doing well in psychosocial adaptation.

The seven subjects who were in this high risk group all fell in the Progressive and Poor Adaptation groups, constituting all of those in the

Poor outcome group and three of the four in the Progressive outcome group. (One subject who achieved a progressive adaptation was rated in the Passive/Fearful category rather than the Passive/Depressed category because she had not sought psychotherapy for depression, a criterion for that latter category.) This suggests that those whose difficulty in psychological development was reflected in notable difficulties in psychosocial functioning responded to the pregnancy and abortion crisis as a catalyst which either mobilized strengths enabling them to master prior developmental conflicts or consolidated pre-existing pathological trends.

Eight of the nine subjects in the middle range group achieved a Satisfactory or Mixed Adaptation during the follow-up period. The major difference between those in the Satisfactory and Mixed Adaptation groups was in the capacity of those in the Satisfactory group to bring psychological closure to the pregnancy and abortion experience and get on with their lives. Those in the Mixed group remained burdened by thoughts and feelings related to the pregnancy and abortion experience which interfered to some extent with their day to day functioning, although to a less significant degree than those in the Poor group.

A notable feature of these two groups is that the within group difference were not apparent during the first interview. Those in the high risk group who managed to turn the pregnancy and abortion experience to developmental advantage did not appear substantially different from those who became further entrenched in their developmental difficulties. Similarly, within the middle range group, those who had difficulty closing the pregnancy and abortion experience did not appear to be substantially different in the first interview from those who managed to do so within the

study period. This lends further support to the notion that a pregnant student's initial presentation at the time of the diagnosis of the pregnancy is not a useful indicator of post-abortion psychosocial adaptation. While it may be possible to assess the student's prior level of psychosocial functioning which may predict whether the student falls in the high risk or middle range group, this does not differentiate the psychologically significant within-group differences in later adaptation. The findings, however, suggest variables that can be assessed to predict these differences.

Developmental Stage

Degree of Autonomy from the Family of Origin. The difference between those who achieved progressive and poor adaptations among those in the high risk group appears to be related to indicators of relative autonomy from the family of origin. As originally conceived at the time the Risk Assessment Rating Scale was developed, evidence of longing for the mother was thought of as reflecting regressive wishes which would be predictive of poor outcome. As indicated on Table 20, this was not the case. Expressions of longing for mother in the first interview were found in all outcome categories except the poor outcome group. This suggests that access to wishes for the comforts of mother are not particularly ominous.

A new category, however, related to the prominence of mother in the subjects' thinking about the pregnancy and abortion did appear to be a prominent feature of those in the Poor Adaptation category (see Table 20). This appears to reflect difficulty in achieving psychological autonomy from the mother. Although these subjects had achieved geographic distance from their mothers, at a psychological level their mothers played a prominent role

in their abortion decision. In only one of the four subjects in the Poor group was the mother consulted directly. In the three other cases, the subject's decision appeared to be thought through in the context of an internal dialog with their maternal introject. This suggests that the abortion crisis was experienced by the subjects in the Poor outcome group in the context of their relationships as daughters who were dependent on their mothers in making the decision to terminate the pregnancy. In contrast, the two subjects in the Progressive group who made direct reference to their families of origin appeared to experience the pregnancy and abortion experience as separating them from their families and pushing them toward independence.

This suggests that while clinical assessment of prior functioning indicates a high risk population whose difficulty in psychosocial functioning in the period before the pregnancy suggest difficulty in achieving psychological autonomy from the family of origin, some subjects experienced the abortion crisis as daughters who were psychologically dependent on their mothers whereas others experienced the crisis as separating them from their families, requiring them to rely on their own resources. This appeared to lead to a dramatic increase in their sense of personal autonomy, mastery, and capacity for self-care during the follow-up period. Indeed, some subjects (two in the Progressive group and one in the Satisfactory group) appeared to embrace this challenge through their determination to go to the abortion procedure alone (see Table 19). Thus, of those in the Progressive group the abortion crisis appeared to lead them to renounce wishes to be mothered, requiring them to turn to themselves, that is, to be mothers to themselves.

Similarly, evidence of involving family members in the diagnosis of the pregnancy, the decision to terminate it, or taking a family member along as a companion to the abortion procedure indicates a lack of autonomy from the family of origin. The only two subjects who involved family members in this way were in the Poor Adaptation group (see Table 19).

Psychological Investment in the Sexual Partner. The findings support the view that meaning of the pregnancy and the process involved in achieving a satisfactory psychological abortion varies with the degree and quality of the student's psychological investment in her sexual partner. This appears to be an important variable in the difference between those who achieved Satisfactory and Mixed Adaptations in the months following the termination of the pregnancy. All of those in the Mixed group were involved in intimate relationships of at least six months duration at the time of the pregnancy which continued through the pregnancy and abortion crisis (see Table 18). Three of the subjects were accompanied to the abortion procedure by their sexual partner, suggesting that they both experienced the pregnancy as an expression of their relationship and a mutual responsibility (see Table 19). The fourth subject's interview material suggested that she and her partner also experienced the pregnancy in the same way. Her partner was only prevented from accompanying her to the procedure by his geographic distance. She reported feeling worried about how difficult it was for him to be so far away during this process and that he felt worried about her since he could not be with her.

None of the subjects in the Progressive or Poor groups experienced the pregnancy in the same way. The subjects whose pregnancies resulted from a relationship of some duration either refused to tell their partners about the pregnancy (one in the Progressive group) or, if they informed him, either the subject did not allow him to accompany her (two in the Poor group) or her partner refused to involve himself (one in the Poor group).

A feature of the subjects in the Poor Adaptation group not captured in tables 12 and 13 is the degree to which their relationships with their sexual partners bespoke a greater degree of psychological involvement with their families of origin than those in the other groups. Two were involved with men in their middle thirties who worked in their fathers' profession, suggesting the operation of oedipal conflicts in their choice of sexual partner. All the other subjects in the sample were involved with men who were within a few years of their own age.

The other two subjects in the Poor group's thinking about their sexual partner involved their families to an atypical degree. For one her family's opinion was the dominant factor in her decision to break off her relationship with her sexual partner. She stated that she could not continue the relationship because her parents would never approve of her sexual partner. The fourth subject was engaged to her sexual partner which both families saw as a quasi-married status. Prior to the pregnancy, her future in-laws had been encouraging her to have a child soon. Thus, for her, the decision to terminate the pregnancy meant taking a stand against the wishes of her future extended family. This subject also said that she would have continued the pregnancy if her mother had been available to help her raise the child.

Two of the subjects in the Satisfactory group described the relationship with the sexual partner as intimate and continuing through the study period. In one case, the pregnancy was terminated on medical advice because it occurred while the subject was taking estrogen-based birth control medication likely to have caused fetal damage. Her experience of the absence of choice about terminating the pregnancy seemed to facilitate this subject's ability to close the experience relatively easily.

The other subject in the Satisfactory group whose pregnancy was the product of a continuing intimate relationship treated the pregnancy as a mutual responsibility shared by her partner. He was involved throughout the period from her first suspicion that she might be pregnant through the end of the project, including going with her to the abortion procedure. This subject worked very openly and directly on her feelings about the pregnancy and abortion, including using additional counseling to work on feelings stirred up by the process. It was important to her to inform all of those who cared about her of her pregnancy and abortion. This included her close friends and her parents.

Her use of her parents in this regard was quite different from that of the subject in the Poor group who relied on her parents to make the decision. This subject was determined to make her own decision as well as to assure that she treated the decision responsibly and processed her feelings about it. Thus, her determination to keep her parents informed about her pregnancy and her feelings about it seemed to be an expression of her determination to be honest with herself and to avoid keeping what she saw as an important psychological event secret. This determination appeared to be a way of mastering prior difficult experiences which she worked directly

on in individual counseling sessions.

The Role of Religion

The role of religion, particularly the Roman Catholic Church's strong opposition to abortion, in the subjects' capacity to achieving a successful psychological abortion is a curious one. Of the six Catholic subjects in the study, five said their religion was not a significant part of their lives and/or that they had arrived at a personal position favoring the morality of abortion prior to the pregnancy (see Table 10). Four of them constituted the Mixed group, the other was in the Progressive group. The one subject who described herself as a devout Catholic and voiced the belief that her decision to terminate the pregnancy was immoral and a mortal sin achieved a Progressive outcome.

Thus, while the fact that all of the subjects in the Mixed group were Catholic and all of the subjects in the Satisfactory group were Protestant suggests that religion is a central variable in distinguishing these two groups, the fact that two of the subjects in the Progressive group were also Catholic, including the most openly devout subject, suggests that religion plays a subtle rather than defining role in a subject's ability to close the pregnancy and abortion experience.

For two of the subjects in the Mixed group, the Church's position on sexual morality in general, and particularly on premarital sexual activity appeared to be the battle ground on which the subject and her parents fought over her efforts to achieve psychological autonomy. In both cases, the parents strongly opposed the subject's relationship with her sexual partner based on the parent's concern that the subject and her partner were

sexually active. For both of these subjects, the relationship with the sexual partner, their decision to become sexually active, and their long-standing commitment to their relationship appeared to serve an important function for them in their efforts to differentiate themselves from their families. According to the subjects' accounts, both families sounded remarkably controlling and intrusive.

In one of these cases, the abortion occurred just prior to a vacation during which she was scheduled to return to her parents home. Her mother went through her luggage and found the instructions for her post-abortion self-care. This precipitated a major battle between the subject and her parents in which they forbade her to see her sexual partner again, threatening to withdraw financial support for the remainder of her college education if she violated their edict. She was convinced that they would follow through on this promise. Although she was determined to continue her relationship with him despite their edict, she had to do so secretly. This meant that they had less time together and that time was burdened by a sense of danger that they might be caught together.

These circumstances interfered with her ability to grieve with her partner the loss the abortion involved. When she was seen for the final research interview, she appeared pre-occupied with an unresolved grief reaction. She had isolated herself from her friends, many of whom were involved in the campus anti-abortion movement, and was having difficulty concentrating on her academic work. She described the six weeks since she returned to campus as a "recovery period" during which "I wanted to have time alone -- not necessarily to think but just to be alone away from my parents." This situation was compounded by the fact that her sexual partner

was out of the country for the semester. She gave the clinical impression that the process of her grieving the abortion was interfered with by her separation from her sexual partner. It was as if she needed to be with him to work it through.

Her response to a question about whether she saw any positives in the experience she had been through lent credence to this formulation. She said that one positive was that she and her sexual partner were still together (even though separated for the semester) and that it had strengthened their relationship. She said that it had "pushed her out of [her parent's] house," that she was generally not as afraid of independence as she used to be, nor was she as afraid of separation from her sexual partner as she used to be. She noted that she was planning an internship away from her home during the next summer. She said she would have been reluctant to consider this before.

The other subject in the Mixed group whose relationship with her partner created tensions with her parents related to sexual morality was in a quite different position. Her response to learning that she was pregnant suggested that she was psychologically ready for motherhood. Her first thought was of an affectionate joke her sexual partner had made about the possibility that she might be pregnant and she said she felt "a little happy" because it meant that her partner was fertile and she knew he had some fears that he might not be. She was also closer to social readiness for motherhood than most of the subjects in the sample. She was a senior near graduation. Her partner had graduated a couple of years previously and was established in his career. She expected that their relationship would lead to marriage in two to three years. She decided to terminate the

pregnancy because she wanted to have a year or two to establish herself in her career before marriage, although she intended to begin living with her sexual partner after her graduation, and wanted some time after marriage before having children.

She was troubled by thoughts about the uteral contents, abandoned babies, and mutilated young children during the follow-up period. These thoughts stimulated crying spells. These appeared to be in reaction to guilt about the abortion. She had clear memories of anti-abortion films displaying aborted fetuses she had seen as a school girl as part of her Catholic education. It was not clear the extent to which her difficulty closing the pregnancy and abortion experience was related to this religious education or reflected a sense of guilt stemming from her readiness for motherhood which would have existed if she had been trained in a religious faith supporting a mother's right to choose to continue or terminate a pregnancy. In any case, her religious training did not persuade her to continue the pregnancy nor did it support her closing the experience. Her conflict with her parents about her sexual activity, which she framed as a difference over the Church's position on sexual morality, foreclosed the option of discussing this difficult life circumstance with them as the subject in Satisfactory outcome group described above was able to do.

Minority Status

Minority status appears to be associated with a history of difficulty in prior psychosocial functioning (see Table 9). Of the five subjects in the sample who were Black students from the United States or foreign students from Third World countries, four had histories of passivity and depression

or of acting-out. This finding is probably related to the many stresses associated with minority status in the United States which are compounded by the particular stresses of cultural differences for foreign students from Third World countries. Minority status, however, does not predict how the crisis will be resolved. Of the four minority subjects in the high risk group, two achieved a progressive outcome and two a poor outcome. The fifth achieved a satisfactory outcome.

Stages of the Abortion Crisis

The findings related to the process of the subjects' experience suggest that the crisis is marked by two stages. The first is related to the psychological tasks involved in acknowledging the reality of the pregnancy. The second is related to the task of the psychological integration of the pregnancy and abortion. The subjects' progression through these stages can be traced, providing a basis for assessing the degree of risk and a structure for identifying those subjects in need of supportive services.

Acknowledging the Reality of Pregnancy

The psychological tasks in Acknowledging the Reality of the Pregnancy include recognizing the symptoms of pregnancy as potentially related to pregnancy, testing that potential reality through making arrangements to have a pregnancy test, and integrating the reality of a positive pregnancy test. Completion of these tasks requires that the subject have the ego capacity to hold an unexpected, unwanted and frightening reality in her mind and take reality-oriented action based on it. While it is to be expected that college women would experience psychological conflict

in this task, the defenses used to manage it appear to be predictive of outcome. Some subjects were able to manage the conflict using relatively mature defenses such as suppression or repression whereas others relied on the more primitive defense of denial.

This first stage of crisis is marked by two consecutive phases. The first phase, recognizing the symptoms of pregnancy as possibly related to pregnancy and taking action to explore that possibility, is played out during the time between the appearance of the first symptoms of the pregnancy and the first medical appointment related to the pregnancy. A subject's negotiation of the first phase is reflected by the number of weeks her menstrual period is overdue at the time of the first medical appointment and whether the subject presents concern about pregnancy as her presenting problem for that appointment. The second, integrating the reality of pregnancy psychologically, occurs following the diagnosis of the pregnancy. In most cases, it is resolved by the time of the abortion. A subject's negotiation of the second phase is reflected in her reaction to the confirmation of pregnancy, specifically, whether the subject experiences the shock reaction.

Recognizing Symptoms and Taking Action. Recognition of the symptoms of pregnancy (the failure of menses to commence on schedule, breast tenderness, and morning sickness) as potentially related to pregnancy requires sufficient ego capacity to tolerate anxiety related to the possibility of pregnancy to allow conscious thought about the meaning of the symptoms. The second step, initiating action toward seeking confirmation of the pregnancy, requires, in addition to holding the possibility of

pregnancy in the mind, the ability to mobilize action in the service of reality testing. In general, it can be expected that the longer the period of time between the on-set of symptoms of pregnancy and their recognition, as well as the longer the time interval between thinking about the possibility of pregnancy and taking steps to confirm or rule out that possibility, the more likely the use of reality distorting defense mechanisms.

The circumstances of the first medical appointment provide indications of whether the subject is able to manage whatever psychological conflicts an unplanned pregnancy stirs up without relying on reality distorting defenses. Seventy-five per cent (18) of the subjects made an appointment for a pregnancy test within two weeks after her menstrual period did not begin when expected, suggesting that they were able to manage the conflict without using reality distorting defenses (see Table 11). The five subjects for whom outcome data were available who delayed four weeks or more all fell in the high risk group in terms of prior level of psychosocial functioning, suggesting that delay in seeking medical advice and difficulty in recognizing the symptoms of pregnancy and taking action, are indicators of risk. Since three achieved a progressive resolution and two a poor resolution of the crisis, it is not a predictor of how that risk will be managed.

Integrating the Reality of Pregnancy. The discovery of the shock reaction suggested a second phase in the stage of Acknowledging the Reality of the Pregnancy related to the psychological task of integrating the reality of the pregnancy. While it might be expected that the resolution of this task would accompany and be a part of recognizing the symptoms of

pregnancy and taking action to test the reality, the shock reaction suggests that it is not. Some subjects who were able to recognize the possibility that their symptoms could be due to pregnancy, hold in consciousness the idea that they might be pregnant as realistic concern, and take action by having a pregnancy test, none the less experienced a period of disorientation when told that the pregnancy test was positive. The absence of a shock reaction is one of the indicators of the Satisfactory group, whereas its presence appears to be a symptom of difficulty in managing the reality of pregnancy (see Table 16). A shock state of brief duration appears to be associated with the Mixed group (see Table 17).

Identification of the shock state during the appointment when the subjects discussed their positive pregnancy test with health service personnel is an important finding for program development. Seven of the fifteen subjects later reported that they were feeling dazed and disengaged from their immediate surroundings and isolated from their feelings during the appointment (see Table 15). The fact that the shock state was not evident to the subject or to the interviewer and that subjects in the shock state appeared calm and rational suggests that this appointment is not a time when medical personnel can reliably evaluate a student's psychological state or a time when the student is psychologically prepared to make important life decisions.

Integrating the Reality of the Pregnancy and Abortion

The second stage of the abortion crisis deals with the psychological task of integrating the reality of the pregnancy and abortion. It follows the successful negotiation of the previous stage, acknowledging the reality of

the pregnancy, and is usually negotiated during the period following the abortion. Successful resolution of this stage enabled the subject to "close" the pregnancy and abortion experience psychologically and invest energy in present activities and future plans. Those in the Progressive and Satisfactory groups appeared to manage this task successfully, whereas those in the Mixed and Poor groups had not managed to do so during the study period.

Successful negotiation of this stage appears to be related to the subjects degree of psychological autonomy from her family of origin, the degree and quality of her investment in her relationship with her sexual partner, and the working through of a grief process related to the abortion among those who experienced the pregnancy as a product of a love relationship. In the case of those in the Progressive group, this process appeared to have been well on its way to closure at the time of the second interview scheduled in the weeks following the abortion. Most of those in the other three groups were still in the process of working on these feelings.

Psychodynamics of the First Stage

The abortion crisis typically call upon the use of different psychological defense mechanisms as the subject deals with the wishes, fantasies and feelings it stimulates. The psychological task is to manage these through "adaptive denial" in a way which leads to a successful "psychological abortion" which, in turn, makes it possible to bring successful closure to the experience. Analysis of the defenses used in the process provides useful clues to assessing the steps involved in this process and provides a framework for assessing a subject's degree of psychosocial risk.

Denial

The concept of "adaptive denial" to describe the process by which some subjects achieved successful closure to the experience is both provocative and useful. It is useful because it describes the process the subject's ego must go through in order to contain aspects of their experience in the service of mastery. It is provocative because the psychological defense mechanism of denial is a primitive, reality distorting defense. Thus, the notion that the use of such a primitive defense could be adaptive is almost a contradiction in terms. The task, however, of identifying which defense mechanisms subjects use to achieve "adaptive denial", and assessing the role played by the defense of denial, will be central to identifying a subject's degree of risk.

Denial is one of the earliest defenses to develop. It distorts reality because it requiring a "split" in the ego in which "part of the ego organization, something actually perceived, is treated by the rest of the ego organization as something alien to it". Its use suggests a regression from later-developed, higher level defenses due either to the degree of psychological stress or the vulnerability of the subject's ego (Cameron 1963, p. 369). It may lead to dissociative symptoms such as feelings of estrangement and depersonalization. When denial is used for a relatively brief time period or when dissociative symptoms are mild and transient, they are a relatively common response to potentially traumatic situations, signifying that the psychological impact of the situation is beyond that with which the more mature defenses can cope and a brief regression to primitive modes of defense is required (Cameron, 1963, p. 366-369).

When these symptoms are not mild and transient, they indicate ominous ego vulnerability.

Severe estrangement and depersonalization, dreamlike states and massive amnesias ... are [defenses] available only to those who readily dissociate when they deeply regress.... The dissociation results from an extensive utilization of denial in a primitive form. This happens because the repressive [or more mature] defenses have been inadequately developed and denial has been overdeveloped.

The excessive use of primitive denial in adulthood, when repression fails and a deep partial regression occurs, points to an excessive use of denial before repression had developed into the key defense. This in turn implies that early in childhood the person who later dissociates readily must not have been sufficiently protected by others at a time when his ego had not reached sufficient maturity to provide itself with protection. He [sic] must have been exposed repeatedly to unpleasant, dangerous and anxiety-provoking situations which demanded immediate effective defense at a time when denial was his best means for providing it" [emphasis in the original] (Cameron 1963, p. 369).

The wish to deny the reality of pregnancy is a common feature of the experience of the subjects in the study and can be expected in women who feel unprepared for pregnancy. It appears to be the major psychodynamic issue the subjects struggled with during the stage of Acknowledging the Reality of the Pregnancy. The defenses used to express this wish may well be indicators of outcome. Many subjects described a wish to deny the symptoms of pregnancy and described using conscious

suppression to keep the thought that they might be pregnant out of conscious awareness. Although this wish is to be expected, the degree to which it interferes with reality testing through taking timely action to assess the reality of pregnancy may be an indicator of psychosocial risk.

Thus, 18 of 24 subjects in the total sample sought medical advice within two weeks after their period was overdue. This suggests that whatever their wishes to deny, they were able to mobilize themselves to take action to test the realities of their fears (see Table 11). Outcome data were available on five of the six subjects who were four weeks or more overdue. They all were in the Progressive and Poor outcome groups whereas all of those in the Satisfactory and Mixed groups sought medical advice within two weeks of the due date of their period (see Table 12).

Assigning meaning to delay in arranging an appointment to assess the possibility of pregnancy, however, is complicated by a number of factors which may provide reality-based reasons for delaying action to test the reality of possible pregnancy. For example, the earliest strong indicator of pregnancy, the cessation of menses, is relatively easy to rationalize initially due to the considerable variability between women in the regularity of the menstrual cycle. Among those women whose menses are irregular, the absence of menses may not be a realistic cause for concern about pregnancy for some period of time. Even among those with a predictable menstrual cycle, it may be rationalized as a response to one of the many emotional stresses typical of college life which may disrupt the menstrual cycle. Both breast tenderness and morning sickness may not develop as symptoms, may be mild enough to be ignored relatively easily, or may be attributed to other causes.

Since it is widely known that pregnancy can not be reliably confirmed until six weeks following the last menstrual period, it is realistic for a woman who is able to consider the possibility that her symptoms signify pregnancy and is prepared to take action to test the reality to delay taking steps toward the medical confirmation of pregnancy for up to a month after the first period does not come on schedule. It is equally widely known that pregnancies are most easily medically terminated between the sixth and twelfth week of gestation. Therefore, it may be realistic for a woman who is aware that her symptoms may be related to pregnancy to delay seeking medical confirmation of pregnancy, particularly if her symptom picture has convinced her that she is pregnant, until after the sixth week of gestation to give herself time think through the implications of the pregnancy.

The more delayed the menses, however, the more likely that reality distorting defense mechanisms have been used to avoid recognition of the symptom as a sign of pregnancy, particularly when additional symptoms such as morning sickness and/or breast tenderness are also present. Thus, it is possible to rationalize missing one period without distorting reality significantly. However, when the second period does not begin within a week or two of its expected onset, it requires considerable distortion of reality to avoid considering the possibility of pregnancy. This is particularly true if other well-known symptoms of pregnancy such as morning sickness have developed.

Thus, delay in seeking medical advice may be based on realistic consideration of possibility of pregnancy and a conscious decision to put off assessing that possibility for a variety of reasons. It may also be in response

to reality-based factors which give some basis for the subject's wish to deny the meaning of her symptoms. Finally, it may represent the operation of reality distorting denial. Examination of the interview data from those subjects who waited more than two weeks after their period was overdue to make first appointments at the health service indicated that reality distorting denial was operating in only three of cases of delay in arranging the first medical appointment by more than two weeks. Tables 27 and 28 summarize these findings.

Table 27

Assessment of the Reason for Delay more than
Two Weeks for all Subjects

Assessment	N	Weeks Overdue		
		4	5	11
Realistic consider.	1	1	0	0
Reality-based Doubt	2	1	1	0
Denial	3	1	1	1
Total	6	3	2	1

Table 27 summarizes the assessment of the processes involved in the six out of the total sample of 24 subjects from whom data on the length of time between the last menstrual period and the first medical appointment was available (see Table 11) who delayed seeking medical advice for more

than two weeks after missing a period. It indicates that only half of them used reality distorting denial. It further suggests a trend in the direction that the greater the period of delay, the greater the likelihood of the presence of reality-distorting denial.

The interview data from the six subjects who delayed more than two weeks before seeking medical advice are discussed below according to the assessment of the basis for delay.

Realistic Consideration of Pregnancy. One subject who did not seek medical advice until four weeks after her first period was overdue described both the wish to deny the meaning of her symptoms and an insistence on appraising the reality of her situation which suggests a good capacity for reality testing. She was a responsible contraceptive who began to suspect she was pregnant two weeks following her first episode of unprotected intercourse when her usually regular period did not come on time. At that time she thought to herself, "there's a 50% chance that my cycle is disrupted due to stress," but she had the feeling that stress was not the reason. She also had the thought, "It will never happen to me," but balanced that thought with the thought, "It can happen to you as easily as it can happen to anyone else."

As the weeks passed she became aware of some nausea on days when she was not well rested. These symptoms were mild enough that she could attribute them to other causes. She developed sore breasts, a usual symptom that her period is coming. When it did not come during her fourth over-due week she became convinced that she was, in fact, pregnant and requested

pregnancy testing promptly. She achieved a progressive outcome based on the follow-up interview five months after the abortion.

Reality-based Doubts. Denial which has some basis in reality may indicate less severe reality distortion as the reality provides support for the wish to deny. Two subjects' attributed their difficulty believing they had the "bad luck" to become pregnant to the circumstances of their pregnancy. Each reported becoming pregnant as a result of a single, brief penetration during a necking and petting session with a partner with whom they had not had other sexual intercourse. Thus, each rationalized her difficulty integrating the reality that her symptoms were related to pregnancy. Reports of pregnancy stemming from a single intercourse, although justifying some skepticism, are not infrequent among adolescents who become pregnant. It does raise the question as to whether the subject is consciously distorting reality by lying about the circumstances of the pregnancy, unconsciously distorting through denial of intercourse, or, more ominously, is experiencing a severe form of dissociation, amnesia, related to the intercourse.

This skepticism should be balanced by awareness of late adolescent fecundity and the vicissitudes of adolescent passion. Few women make provisions for birth control prior to their first intercourse. If the man involved does not use male contraceptives, it is likely that the first intercourse will be unprotected. Thus, it is not surprising that among a sample of college women many of whom have limited sexual experience, some reports of pregnancy under circumstances in which the woman did not expect to become pregnant are not unlikely. A pregnancy occurring under

these circumstances may provide a greater basis in reality for difficulty recognizing the symptoms of pregnancy than those subjects who become pregnant as a result of more frequent intercourse. The subjects' accounts of the circumstances of their pregnancies are detailed below.

One subject reported that she had been "making out" with a man whom she had dated several times and liked but had not had sexual intercourse with. She terminated their foreplay abruptly "when I felt suddenly that he wanted to go further than I did." She reported that she did not know that sexual intercourse had occurred at the time. In retrospect, she attributed her sudden awareness of his intent to a brief period of penetration.

She stated that her period was never late so she "had to worry" when her period was late but did her best, however, to "screen out" these thoughts. This use of suppression was effective for she said she did not have the thought that she might be pregnant until her period was three weeks overdue. When she developed morning sickness and nausea over a weekend, the idea that she might be pregnant loomed larger as a thought in her mind. She determined that she should go to the health service the following Monday.

When she came to the health service four weeks after the expected onset of her menses, however, she could not bring herself to put her fears into words. She said she had an ear infection and a stomach ache. She was treated for these symptoms. The medication helped her ear infection but did nothing about her morning sickness and nausea. By that Friday she was increasingly worried that she might be pregnant but had not verbalized these fears to anyone. She returned to the Health Service, still complaining

about a stomach ache. The physician who saw her said that symptoms like those she described often indicated pregnancy and suggested a pregnancy test. This was the first time she heard her fear verbalized. She felt shocked to hear them but at the same time knew that it was probably true. When the test came back positive, she said, "It was as if my worse fears came true, almost like the impossible had happened."

She appeared to be a candid informant who made no pretense to virginity, volunteering without evident conflict that she had had intercourse with other partners several times previously. She said she would not have been surprised if she had been become pregnant as the result of these other sexual relationships. She attributed her denial to her difficulty believing she had the "bad luck" to become pregnant under these circumstances. Her appearance of candor and eager participation in the project interviews as well as her experience of the pregnancy as a mobilizing crisis which led her to a progressive adaptation in the follow-up period lent further support to the decision to believe her story and attribute her delay in seeking medical advice to the circumstances of the pregnancy which gave some basis in reality for the power of her wish to deny.

Another subject became pregnant under similar circumstances. She had not had previous sexual intercourse and, as a pro-life activist on campus, had always expected that she would be a responsible contraceptive when she became sexually active. She prided herself on being a responsible person who always thought before she acted and believed that unplanned pregnancy was the result irresponsible behavior. She had paired off at a party with a man she had known at a distance for some time. She said that they were involved in a passionate session of necking and petting when she

felt him penetrate her once. She had not intended to have intercourse with him and pushed him away immediately.

She had difficulty believing she had the bad fortune to become pregnant as a result of this incident and delayed five weeks before calling to arrange a pregnancy test. She was furious with herself for having become pregnant and, finding herself pregnant, feeling that she had no choice but to have an abortion. Her fury at herself for violating her expectations of responsible sexual behavior and her surprise that she had allowed passion to cloud her judgement lent credibility to her story. Unfortunately, information about her psychosocial outcome was not available. She dropped out of the project when there was some question following the abortion procedure as to whether she, in fact, had been pregnant.

Denial. Three subjects used denial to a degree which significantly distorted reality, including two cases in which the denial was accompanied by symptoms of dissociation. In one case, denial and dissociation appeared to be used in the service of progressive development. In the other two cases, it appeared to be an early indicator of poor psychosocial adaptation in the post-abortion period.

The subject who used denial and dissociation in the service of progressive development presented an atypical situation. She was a foreign student from a third world country who had been passive, compliant person prior to the pregnancy. She had been involved in a continuing sexual relationship in which no birth control measures were taken. She had been concerned about this, had asked her partner to take precautions, and was

distressed by his failure to do so. He had indicated an interest in making her pregnant to solidify their quasi-married status. Although she said she began to suspect she was pregnant within a week or so after her period did not come on schedule, she did not make a medical appointment until her period was four weeks overdue. She requested the appointment to make arrangements to get a diaphragm for birth control. She reported being surprised to learn that she was pregnant and wanting to have time alone to think through what she wanted to do about the pregnancy.

The length of time she allowed to pass before seeking medical attention, her request for an appointment to secure birth control, and her surprise that the pregnancy test was positive suggest that she used denial prominently during this phase, especially in the light of the fact that she was involved in regular unprotected intercourse and had been concerned about the risk of pregnancy. Her report that she felt "in a fog" between the time she began to think she was pregnant and the abortion procedure suggests the use of dissociation during this period.

These symptoms need to be understood in terms of her culture and personality characteristics. In her culture, it is the men in the woman's life who have the legal right to decide whether a pregnancy will be terminated, either the father of the child or the mother's father. She was preoccupied with the fear, realistic in her culture, that her sexual partner might make her continue the pregnancy if she told him about it. She was uncertain as to his legal rights in this country. She was also afraid that an authority figure might either might see the decision as belonging to her sexual partner or might make her continue the pregnancy against her will for some other reason. Thus, the prospect of going to an authority figure such as a

physician for a pregnancy test raised a level of anxiety for her related to expectations that she might be prevented from making her own choice about the continuation of the pregnancy which had a reality base in the culture she came from. Her passive, compliant personality style, consistent with the role of women in her culture, further exacerbated her conflict.

Thus, while her determination to terminate the pregnancy and concern that she might be prevented from doing so suggests that she was able to recognize her symptoms and believe in the possibility of pregnancy, it represented an uncharacteristic level of personal autonomy which was in conflict the expectations of her culture and personality. The distonic element of her experience during this time appears to have been her determination to follow through with what she thought was best for herself as opposed to complying with others' expectations. This conflict appeared to be of sufficient severity to cause her to use the defense mechanisms of denial and dissociation. Their use, primitive though it may be, appeared to be adaptive for she eventually achieved a progressive resolution to the pregnancy and abortion crisis based on her achievements in the post-abortion period.

Two subjects' use of denial during the recognition stage presaged more difficulty in post-abortion adaptation. One subject who waited until her period was five weeks overdue before seeking medical advice was able to recognize the symptoms of pregnancy but demonstrated marked difficulty holding on to that recognition. She began to worry that she might be pregnant when her period was one week overdue. She noticed that she was gaining weight in the abdomen rather than around the hips. She thought this suggested that she might be pregnant. She began to look for signs of

morning sickness but did not develop this symptom. When asked how she felt at that time about the thought that she might be pregnant, she said, "It felt unbelievable but not unlikely."

Her feeling that pregnancy was an "unbelievable" possibility led her not to pursue pregnancy testing for another three to four weeks despite an increasingly frequent thoughts that she must be pregnant which she did her best to suppress. She had talked with an older brother she was especially close to two weeks after she became concerned that she might be pregnant. He advised her to get a pregnancy test right away, saying "Either you are pregnant or you are not pregnant; the thing to do is to find out which it is." She avoided taking action on her concerns for some three weeks after this advice to manage her fears through reality testing.

Her difficulty believing the reality of her pregnancy continued after its medical confirmation, reflecting severe and prolonged denial of reality which was accompanied by marked and troubling feelings of estrangement. Thus, when she was seen following the abortion she described feeling that the pregnancy was not really happening to her although, at the same time, she knew it was. "It was weird but it didn't seem to be in reality, it could almost be pretend." It felt to her that there was a part of her going through the steps of her daily life and acting on the intellectual knowledge that she was pregnant but there was another part of her that felt outside the experience, observing herself and not really believing it was happening to her.

She used her capacity for dissociation consciously as a defense during the procedure itself. She said that she "made" herself "feel detached from" her body in order to get through it. Her report of her experience of

the procedure had a dissociated quality, as if it were broken up in to fragments and not a unified experience in which she was a full participant. She described it in terms of the "sound of the machine and the feeling of my insides being pulled out" and characterized it as "the weirdest experience of my life."

While she said that her feelings of dissociation stopped almost immediately following the termination of the pregnancy, her description of her relationships with peers in the post-abortion period betrayed continuing feelings of estrangement. She had not told any of her friends about the pregnancy and abortion. She said, "Now it feels funny to walk around knowing that I have been pregnant and had an abortion and that my friends know neither." She said her closest friends are the same age, come from "sheltered backgrounds" similar to her own, and were not mature enough to be of support to her. She felt afraid they would ask her what it felt like to be pregnant and to have an abortion. She said, "They would ask a lot of questions and I would wonder, 'Why am I answering all these questions.'"

Thus, this subject's delay in making an appointment for a pregnancy test until five weeks after her period was due was a symptom of reality distorting denial. Her capacity to use dissociation as a defense during the procedure was suggestive of serious ego vulnerability. Her use of denial and continuing dissociative symptoms predicted poor outcome. She was hospitalized for psychiatric reasons within three months following the termination of her pregnancy.

The other subject waited 11 weeks after missing her first period before seeking medical advice and asked for an appointment for a routine

medical examination when she did call for an appointment, rather than a pregnancy test. This strongly suggests pathological levels of denial in the process of recognizing her symptoms and take appropriate action. The interview material supported this hypothesis. She said that she had had an "abnormal" period about six weeks after her last menstrual period. She waited eight weeks after this "abnormal" period before seeking medical advice although she said she had wondered over the last four weeks whether she might be pregnant. Despite having wondered for four weeks if she might be pregnant, she asked for a routine examination when she called for the appointment, gave no indication that she was concerned that she might be pregnant, and appeared shocked to learn that she was. She was uncertain about whether to terminate the pregnancy and did not arrange the termination procedure for four weeks following the diagnosis. The procedure was finally performed in the last week during which she could have had a legal abortion. She was rated as having a poor psychosocial outcome based on having a repeat pregnancy before the end of the follow-up period.

Data related to post-abortion psychosocial adaptation were available from only five of the six subjects shown on Table 27.

Table 28

Delay more than Two Weeks and Post-abortionPsychosocial Adaptation

Assessment	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Realistic consideration	1	1	0	0	0
Reality-based doubts	1	1	0	0	0
Denial	3	1	0	0	2
Total	5	3	0	0	2

Table 28 shows the assessment of the basis for delay and eventual psychosocial adaptation of the five subjects in Table 12 who waited more than two weeks before making a medical appointment. In this sample, the delay was attributable to an effort to suppress thought about pregnancy accompanied by realistic consideration of the possibility of pregnancy in one case. In two other cases, the use of denial was based to some degree on doubts about the possibility of pregnancy with some basis in reality related to the circumstances of the intercourse which led to the pregnancy. In three cases, it was a symptom of denial which distorted reality to a significant degree. In one of these cases, it appears to have been used as in the service of promoting autonomy and used to achieve a Progressive outcome.

Although three of four of those in the progressive adaptation group were delayed more than two weeks in seeking medical advice, reality distorting denial played a role in only one case. Both subjects whose later psychosocial adaptation was rated as poor used reality distorting denial in the process of recognizing symptoms and taking action.

Thus, while delay in seeking pregnancy testing of four weeks or more appears to be associated with pre-existing difficulty in psychosocial functioning and should be viewed as an indicator that the subject is in the high risk group (those headed for either Progressive or Poor Post-abortion Psychosocial Adaptation), further evaluation is required to assess if it is a symptom of denial which distorts reality to a significant degree and, if it is, whether it is used in the service of promoting autonomy.

Denial in the Shock Reaction

The shock reaction represents a mild form of dissociative reaction in response to situations perceived as overwhelming to the ego. The denial of affect and the feelings of estrangement from the usual sense of self provide a form of psychological "time-out" to assimilate the overwhelming stimuli. Cameron (1963), for example, states that "mild and transient experiences of estrangement and depersonalization are so common that ... they can be regarded as modes of defense which are available to almost everyone in the face of stress. They are defensive in the sense that they lessen the impact of a traumatic experience, and they give a person both time and psychological distance for the process of preparing to withstand shock and sudden change (p. 369)."

Thus, shock reactions exist on a continuum with more severe forms denial and dissociation. The length of the shock reaction as well as its severity distinguishes it from the more severe forms of dissociation. Two indicators of the severity of a dissociative symptom is the degree to which reality is distorted by the symptom and the degree of anxiety the symptom causes the subject. The longer a shock reaction lasts and the more it is experienced as a cause for alarm by the subject, the more severe the psychological impact of the pregnancy or the weaker the ego of the subject.

This conclusion is supported by the findings. All of those who reported the shock reaction fell in the groups which had outcomes indicative of change in their later adaptation (the Progressive, Mixed, and Poor outcome groups), where as none of those in the Satisfactory outcome group reported it (see Table 16). Those whose shock reaction lasted through the remainder of their pregnancy fell in the groups which had the greatest change in their level of psychosocial adaptation (the Progressive and Poor groups), whereas all of those in Mixed group reported shock reactions which lasted for a few hours to one day (see Table 17).

Denial in Acknowledging the Reality of the Pregnancy

In conclusion, while it is to be expected that most college women who have an unplanned, unwanted pregnancy will experience a wish to deny the reality of the pregnancy, use of the defense of denial, either in the process of recognizing the symptoms of pregnancy or in the use of dissociation in the shock reaction, is indicative of risk. Table 29 below summarizes the findings regarding the frequency of shock and denial by the number of weeks the subjects were overdue at the time of the first medical

appointment. The two subjects who were more than two weeks overdue at the time of the first medical appointment but who were found to have either considered the possibility of pregnancy realistically or had some reality basis for doubting they were pregnant (see Table 28) each had the shock reaction and are shown in that category on this table.

Table 29

Denial in Acknowledging the Reality of the Pregnancy by
Number of Weeks Overdue at 1st Medical Appointment

Denial	N	Weeks Overdue				
		≤ 1	2	4	5	11
Shock	6	2	2	2	0	0
Denial	3	0	0	1	1	1
Neither	7	1	6	0	0	0
Total	16	3	8	3	1	1

Table 29 shows that while denial is not limited to those who were more than two weeks overdue at the time of the first appointment, all of those who were more than two weeks overdue experienced denial either in the form of shock or direct denial. This supports the hypothesis that delay by more than two weeks is indicative of greater conflict about the pregnancy. Even among the 11 subjects who scheduled the appointment within two weeks four (36%) experienced atleast temporary disruption in ego functioning in response to receiving a positive pregnancy test.

Table 30

Denial and Post-abortion Psychosocial Adaptation

Denial	N	Outcome Groups			
		Prog.	Sat.	Mixed	Poor
Shock	6	2	0	3	1
Denial	3	1	0	0	2
Neither	7	1	4	1	1
Total	16	4	4	4	4

Table 30 shows the outcome and denial rating of all 16 subjects. It indicates that the only group which experienced neither shock nor denial was the Satisfactory group. Although one subject in each of the other groups also did not show either shock or denial, the other three subjects in each group gave evidence of one or the other. Shock is the prominent feature of the Mixed group. As shown in Table 17, the duration of the shock reaction was brief for those in the Satisfactory group and one of those in the Progressive group. It lasted until the abortion in the subject in the Poor group and the other two subjects in the Progressive group (one of who is shown in the denial category on this table because she gave evidence of both shock and denial). Denial occurred in the Progressive and Poor groups.

Psychodynamics of the Second Stage

The task of the second stage, Integrating the Reality of the Pregnancy and Abortion, is to lay the memories of the pregnancy and abortion experience to rest. This appears to be related to the woman's ability to manage the fantasies stimulated by the pregnancy or, to put it another way, to achieve a satisfactory psychological abortion. Ideally, this is achieved through experiencing the abortion as being a mother to oneself, that is, coming to terms with the abortion experience as an appropriate exercise of self care, delaying motherhood until a later time when both psychological and social readiness have been achieved.

The psychodynamics of this stage appear to differ based on the subject's success in pre-pregnancy psychosocial adaptation, her degree of differentiation from the family of origin, and the degree of her commitment to her sexual partner. Those identified as at high risk based on prior psychosocial functioning appear to follow one pattern, those in the middle range group appear to follow another. The two groups, therefore, will be discussed separately.

The High Risk Group

This group, often demonstrating difficulty in the recognizing the symptoms of pregnancy and taking action to test the reality of the concerns, appears to divide relatively early in the process between those who demonstrate an early thrust toward closure and mastery and those who become more entrenched in pre-existing pathological trends. In this study, the former achieved a Progressive psychosocial adaptation during the follow-up period, the latter a Poor adaptation.

The subjects in the high risk group appeared to have achieved a less comfortable degree of differentiation from their families of origin and tended to experience unplanned pregnancy and the abortion decision in the context of their relationships with their families, especially their mothers (see Table 20 and following discussion). Those in the Progressive group responded to this regressive pull to turn to their families as repellant. This appeared to serve as a spur to greater self-reliance.

For example, the two subjects who made direct reference to their parents spoke of their parents finding out about the pregnancy as having destructive consequences. One feared it would "destroy" her parents if they knew, the other said her father would "kill" her if he found out. A third Progressive subject did not become involved in the project until after the abortion because she feared her father or another male authority figure would have the power to make her continue the pregnancy against her will. Thus, their thinking about their families of origin appeared to rule out regressive wishes and to push them in the direction of greater self-reliance.

In contrast, the families, especially the mothers, appeared to feature prominently in the thinking of those in the Poor Adaptation group. The question of continuing or terminating the pregnancy appeared to be debated by these subjects in the context of a dialog with their families. In one case, this was a direct discussion with her parents about the decision, in the other three it appeared to be an internal dialog with the maternal introject.

Clear indication of the direction of the resolution of the crisis emerged in the interview scheduled in the weeks following the abortion among the high risk group. Those headed in the direction of a progressive resolution of the crisis appeared to feel that they had mastered the crisis,

reflected in a notably upbeat mood, talking proudly about steps they had taken to master previous social difficulties, and speaking of their intent to put the pregnancy and abortion experience behind them. In contrast, those in the Poor group impressed the interviewer as still reverberating to the pregnancy and abortion experience. The two who had histories of depression each gave evidence of psychiatric symptoms, a phobia and increased depressive symptoms in one case, and continuing symptoms of dissociation in the other. The two subjects who had histories of impulsive acting-out talked about the abortion procedure with a hollow bravado, describing it as an ironic and entertaining experience which they laughed about as they discussed it. This appeared to be a reaction formation to their feelings of guilt and sadness associated with the abortion procedure.

Thus, among the high risk group, the direction of outcome appears to begin to emerge during the period prior to the medical confirmation of pregnancy reflected in denial of the meaning of a menses failure to begin on schedule. Evidence of realistic consideration of the possibility of pregnancy or a reality basis for the denial appears to indicate a positive prognosis. The presence of reality distorting defenses or extreme delay (waiting until well after the second menses fails to begin) are indicators of a poor prognosis. Similarly, experiencing the pregnancy as psychologically involving the subject more intensely with the family of origin indicates a poor prognosis whereas experiencing it as separating the subject from the family of origin and requiring her to rely on her own resources appears to indicate a good prognosis. Finally, these trends appear to become solidified during the weeks immediately following the abortion procedure, either in a generalized sense of mastery in those headed for a progressive resolution or

in the development of psychiatric symptoms or reaction formation to the affects associated with the pregnancy among those headed for a regressive resolution leading to poor psychosocial adaptation in the months following the abortion.

The Middle Range Group

This group was identified by relatively good psychosocial functioning during the pre-pregnancy period and demonstrated the capacity to recognize the symptoms of pregnancy and take action to test the reality of their fears during the first stage. For the most part, these subjects' response to the pregnancy and abortion experience appeared to be more dependent upon their relationships with their sexual partners. Two of the subjects in this group appeared to be able to close the experience relatively uneventfully. In one case, the abortion was advised for medical reasons. The other pregnancy was the result of a casual sexual encounter.

For the remaining six subjects, the pregnancy resulted from a romantic relationship in which the subject felt invested and the resolution of the experience appeared to require a period of working through related to the resolution of maternal wishes stimulated by the pregnancy or grief related to the abortion. Those who achieved a Satisfactory outcome appeared to work through these feelings during the follow-up period whereas those in the Mixed outcome group appeared to be still in the process of working toward closing the experience at the end of the follow-up period.

Both of the subjects who completed the working through process made use of counseling offered in response to their anxiety about the

emergence of powerful wishes to marry their sexual partners and have a baby. Both were surprised by this upsurge of maternal wishes. In both cases, these feelings waned relatively quickly and the counseling focused on issues from the past mobilized by the experience. In one case, these related to regressive wishes for the comfort of being stroked and soothed by her mother. These feelings were worked through within a few weeks and she stopped counseling to devote her energy to peer relationships. In the other, the focus changed to issues related to earlier sexual trauma which appeared to have been stimulated by the pregnancy and abortion experience.

Those in the Mixed group had more difficulty closing the pregnancy and abortion experience. Their difficulty appeared to be related to the intensity of their commitment to their sexual partner. In one case, the subject's relationship with her sexual partner appeared to have created a psychological readiness for motherhood and the circumstances of each of their lives was such that they were very close to social readiness. This subject was pre-occupied with guilt feelings about the abortion and she appeared to be making little headway in managing guilt-ridden fantasies and memories of the abortion procedure.

In two cases, the difficulty closing the experience appeared to be related to unresolved grief. Both were separated by geography from their sexual partners and it seemed that they were unable to get on with the grief work in his absence. Both kept their pregnancy and abortion experience secret from most of their friends and neither used close friends to process it as some other subjects did. In fact, they appeared to resist opportunities to work on their grief with others as if to do so would be a betrayal of their partners. For example, when one was offered counseling to process her

feelings of sadness, she said, "I want my periods of collapse to be when I need them rather than on a schedule [as in counseling]. I need a close friend to talk to, someone who can hold me at 2:30 AM." This suggests that the interviews stirred up wishes for the intimacy of her relationship with her sexual partner in order to do the grief work she needed to do.

The final Mixed subject appeared to be on her way to closing the experience but had not done so by the final research interview. In this case, her sexual partner was the one who voiced open questions about the morality of her decision to terminate the pregnancy which he had agreed to support only with reservation. Both the subject and her sexual partner made use of the counseling option to work on their feelings about the abortion and its implication for their relationship. It may well be that his reservations about the termination of the pregnancy contributed to her difficulty closing the experience.

Medical Record Follow-up

The one-year review of medical records did not yield any surprising findings. Those who had the most emotional difficulties, the two subjects in the poor outcome group who were hospitalized for depression, continued in counseling in the year following the project. The subject who was seen in crisis counseling the year following the project had achieved a mixed adaptation during the study period and had made use of the counseling option offered to her during the study. Her request for crisis counseling occurred almost exactly one year following her abortion, suggesting an anniversary reaction. She was seen for several sessions which helped her put her feelings in perspective.

The significance of the use of gynecological services by the subjects during the follow-up period is not clear. That three of those in the Satisfactory group had negative pregnancy tests may suggest that although they appeared to have closed the experience, unresolved feelings about it took the form of concern about a repeat pregnancy. It is interesting that none of the other subjects in the sample had repeat pregnancy tests at the health service. It is possible that some may have sought pregnancy tests elsewhere.

The medical records of the nine students who refused to participate in the study and those who dropped out were also reviewed. The record provided information sufficient to calculate the length of time between the subject's last menstrual period and the first medical contact for those who refused to participate in the study. Four of the 9 refusers sought pregnancy tests within two weeks following expected date of their menses, 3 within three weeks, and 2 within four weeks. This indicates that those who refused to participate in the project tended to delay for a longer time before seeking medical advice than those who volunteered. Compared with Table 11 which shows the length of time between the last menstrual period for those who agreed to participate in the project and shows that 75% sought medical advice within two weeks of the expected onset of their menses, only 44% of those who refused to participate came for pregnancy testing promptly. This may suggest greater difficulty in recognizing the symptoms of pregnancy and taking action among this group. However, none had further pregnancy tests. Four were not seen further by the health service and five were seen for minor medical concerns. Only one was seen for contraceptive services.

One of the nine students who dropped out of the project had a brief hospitalization in the health service infirmary for psychiatric reasons on the first anniversary of her abortion. The diagnosis at that time was of a delayed grief reaction related to the pregnancy and abortion experience. None of the other drop outs were seen by the counseling service. As for the health service, six were seen for minor medical issues, including contraception in three cases. Two were not seen again at the health service.

Confidence in Findings

This project had as its goal to the exploration of college women's reaction to an unplanned pregnancy and later psychosocial adaptation for the purpose of developing recommendations for a college health service on how services to pregnant students can be improved. It did not attempt to test hypotheses but rather to explore phenomena which have received little study previously. While it has produced hypotheses about the impact of pregnancy on the population served by the health service that lend themselves to further testing through the development of a service program, the findings of this project should be regarded as no more than leading to hypotheses in need of further testing.

A number of factors related to the study purpose, design, and implementation raise question as to the degree of confidence assigned to its findings. The sample is foremost among these. It was self-selected. Little is known about those who refused to participate in the project at the time of the first medical contact beyond age and ethnicity. Not all students at the college use the health service. The project had no access to those who choose to have their medical care elsewhere in the community. The

homogeneity of the population from which the sample was drawn (students in a private women's college) raises question as to the degree to which its results are applicable to other populations such as those who seek health care at an inner-city public hospital.

Even given these caveats, the amount of attrition in the sample raises question as to the degree to which the findings represent the population from which it was drawn (students at a private women's college who use the health service and are willing to participate in a project such as this). Of the 25 students who initially agreed to participate in the project, 36% (9) dropped out before sufficient information was available to assess post-abortion psychosocial adaptation. As indicated in the Methods Chapter, the project procedures were changed when evidence emerged that some of those who dropped out did so because they felt angry and exploited by their participation. Following this change the drop out rate declined from 67% (6 of 9) to 19% (3 of 16). This suggests that the project procedures influenced the drop out rate.

It does not answer, however, the question as to whether those who chose to withdraw from the project were substantially different from those who were studied. The drop outs were more frequently Catholic. While definite information was not available regarding the religious backgrounds of those who refused to participate in the project, five of the nine had last names indicating Irish or Southern European ethnic background usually associated with Catholicism. Thus, the trend toward Catholic non-participation in the study may well apply to those who refused initially.

Finally, the sample size (16 subjects) is too small to draw more than tentative conclusions from, especially in light of an analysis which divided

the subjects into four subgroups. The evenness of the distribution between subgroups, while fortuitous for this analysis, leads to a "neatness" in the analysis which may be misleading. It seems unlikely that another sample of 16 students with unplanned pregnancy would fall as neatly into the four categories and features of the subgroups in this sample are likely to be differently distributed in another sample. For example, the fact that all of those in the Mixed group came from Catholic religious backgrounds and reported having a shock reaction which lasted a day or less whereas all of those in the Satisfactory groups were from Protestant religious backgrounds and did not report a shock reaction may well be a unique feature of this sample. While this finding suggests features of subjects' background and reaction to the confirmation of pregnancy which may have predictive value, further research is necessary to determine their reliability as predictors. It seems unlikely that no subject with relatively good pre-pregnancy psychosocial functioning from a Catholic religious background who reported a shock reaction would be able to bring closure to the pregnancy and abortion experience within the six months following the procedure.

CHAPTER 5

SUMMARY AND CONCLUSIONS

Summary

This study of the psychosocial adaptation of college women to the experience of unplanned pregnancy and abortion gathered sufficient data for 16 of the 25 subjects who originally volunteered to participated in the project to rate their psychosocial adaptation three to six months post-abortion. Data were gathered in three focused interviews on the following schedule: within a week following the diagnosis of the pregnancy, within two weeks following the abortion, and three to six months following the abortion.

Unplanned Pregnancy and Abortion as a Psychological Crisis

Using the criteria of prior and current functioning and ability to close the experience, the degree of variation in post-abortion adaptation of the subjects in this sample led to the conclusion that unplanned pregnancy and abortion stimulates a developmental crisis for college women. The subjects fell in four groups: a Progressive group who showed marked improvement in their functioning three to five months following the abortion; a Satisfactory group who had returned to their pre-pregnancy level of functioning and appeared to have successfully closed the experience; a Mixed group whose functioning was marked signs of depression related to the pregnancy, including crying spells and guilt

feelings, and some decline in social functioning; and a Poor group who demonstrated a marked decline in psychosocial functioning. Four of the 16 subjects in the sample fell in each group.

Stages of the unplanned pregnancy and abortion crisis

The crisis of unplanned pregnancy and abortion appears to have two consecutive stages. The first is related to acknowledging the reality of the pregnancy. For many subjects this stage appeared to be their primary pre-occupation until after the abortion. The second stage of the pregnancy crisis deals with the psychological integration of the pregnancy and abortion experience. It follows the completion of the first stage and work on it is usually accomplished during the period following the abortion.

Difficulty with the first stage is signaled by the operation of the psychological defense of denial. Progress through this stage occurs in two consecutive phases. The first phase involves recognizing the symptoms of pregnancy and taking action to test the reality of the possibility of pregnancy. Difficulty in this phase was indicated by delay of four or more weeks in seeking medical confirmation of pregnancy. A second phase of the first stage related to the psychological integration of the reality of the pregnancy was discovered. Some subjects, although able to recognize the symptoms and seek medical advice promptly, experienced a dissociative state when told that their pregnancy test was positive. It was of variable length and raised question about the subjects capacity to understand fully what was said to them or to participate fully in planning while in this state. It is also likely that decisions made in this state will be experienced as relatively passive efforts to survive rather than active steps toward mastery. This

dissociated state was apparent neither to the subject nor to the interviewer at the time it occurred and only became evident to the subject when it had passed.

The subjects' negotiation of the second stage, integrating the reality of the pregnancy and abortion, appeared to depend on the subject's progress along a developmental continuum from dependence on the family of origin to the establishment of a stable intimate relationship with a peer. Those subjects who appeared to be struggling with issues related to emancipating themselves from their families had either the best or the worst outcome depending on whether they experienced the crisis as closing the door to reliance on their families and requiring them to take steps toward independent mastery or as further enmeshing them with their family of origin. For those subjects who appeared to have made substantial progress on differentiating themselves from their families prior to the pregnancy, the salient developmental issue was the quality of their investment in their sexual partner. The process of laying the experience to rest appeared more difficult for those subjects who had a stable, intimate relationship with their sexual partner. They appeared to experience the pregnancy as a product of love and appeared to require a more elaborate working-through process. Those who became pregnant in a casual relationship appeared to be able to integrate and close the experience more easily.

Interest in Crisis Counseling

Although most subjects found talking about their experience in the research interviews helpful, only half said they would have participated in a counseling program if it had been offered. Noteworthy is the fact that all

of the subjects who achieved a progressive adaptation on follow-up said they would not have taken part in a counseling program. This appears consistent with these subjects' determination to master the experience independently. They may have perceived crisis counseling as undermining that determination. Among the remainder of the subjects, those who were most resistant to counseling appeared to be in the greatest need.

Implications for Practice

The College Health Service

These findings indicate an urgent need for a program of assessment and intervention. Although the sample was too small to predict the proportion of students in other groups who are likely to achieve the various outcomes, it captured the probable range and variation of responses likely to be found among other groups of pregnant college women. Thus, while the percentage of students in each category may vary, these findings indicate that unplanned pregnancy and abortion stimulates a developmental crisis in a great many college women, a conclusion supported by the developmental literature.

Care must be taken in the development of such a program, however. The crisis state is marked by a period of heightened vulnerability during which pregnant students are at risk for feeling intruded on and exploited by well-intended but insensitive helping efforts. For example, students experiencing the shock state went along with exploration by which they later they felt exploited, leading them to resist further contact with the health service. It is important, therefore, to assure that the program of support is not experienced as intrusive.

It is possible that too much help and support may undermine a student's potential for using the crisis as a catalyst to independence and self-mastery. The differences between those subjects in the high risk group who turned the experience to developmental advantage and those who did not were relatively subtle. The crisis appeared to mobilize a thrust toward independence in the former; it appeared to solidify a sense of being overwhelmed and unable to cope independently in the latter. The degree to which this subtle difference is subject to external influence is not clear. The possibility that it is a relatively fragile achievement, atleast initially, suggests that care be taken to avoid undermining it inadvertently. The potential for college students to experience health service staff as parent surrogates and to experience their support as a parent figure taking over and, thereby, undermining their independent mastery suggests guarding against over-zealous helpfulness.

This suggests the need for a two step program. The first is the initial assessment phase and is to be carried out by the medical staff of the health service. The task of this step of the program is to assess which students are handling the experience adaptively and do not need further intervention, and which students will benefit from referral to the counseling service. In the latter case, strategies for effecting the referral need to be developed. The details of the second step of the program, involving the services to be delivered by the counseling service once a successful referral is effected, are beyond the scope of the present project.

Implementing a program of assessment and referral requires the health service staff to walk a fine line between intruding on individual autonomy and making available potential support. One key to walking this

line is to avoid trying to do too much too soon. Since many students are likely to be struggling with denial or a state of shock when the pregnancy is confirmed, they are not themselves psychologically until some time has passed. The direction of a student's eventual resolution of the crisis does not become evident until the period following the abortion procedure, although some indicators may emerge in the period between the diagnosis and the abortion.

The health service staff member's greatest asset in effecting an appropriate referral is relationship of trust based on the student's perception of the staff member as sensitively committed to the student's welfare. Providing for continuity of care is central to developing the trusting relationship which is the foundation for effective assessment. Students who only see a health service staff member to discuss the results of the pregnancy test on the day she learns that she is pregnant and is then referred to another facility for the abortion procedure and its follow-up care is unlikely to develop a sufficient relationship of trust with that staff member to return for interviews necessary to assess her degree of psychosocial risk. Therefore, it is recommended that the college health service take the initiative in asserting its role as the primary care provider throughout the pregnancy and post-pregnancy period including all medical follow-up. This may involve making special arrangements with the facilities that provide the abortion procedure to refer the college's students to the health service for follow-up care.

Guidelines for Assessment Program Structure. It is proposed that the assessment take place over a minimum of three separate appointments with

the same health service staff member. The proposed schedule for the interviews is as follows: the first scheduled as soon as possible following the diagnosis of the pregnancy, the second a few days to a week later, and the third within two weeks following the termination of the pregnancy. It is unlikely that clear indicators of the student's eventual resolution will emerge prior to the interview following the abortion procedure. The first two interviews, however, are critically important to establishing a relationship of trust which sets the stage for assessment and steps toward referral if it is indicated. They also provide an opportunity to make some early interventions which may facilitate mastery of the experience.

Because many students are likely to be experiencing a shock reaction during the medical contact at the time of the diagnosis, this interview should be used to convey concrete information about the options available to her and to establish a relationship based on facilitating mastery. When students are encouraged to make definitive arrangements to terminate the pregnancy at a time when they are disoriented by feelings of shock and denial, they are likely to experience the decision as a relatively passive effort to survive rather than an active step toward mastery. Therefore, the student should be told during the first interview to take a few days to think over her decision and to come in for another appointment to discuss her plan and to make more definite arrangements for the abortion if that is the course she feels is right for her.

Paradoxically, encouraging the student to take a few days to think over her decision, even though she may well have decided to terminate it, supports mastery. Thus, it is an intervention directed toward supporting mastery. For the most part, the interviewer should listen for clues and give

concrete information during this interview without being intrusive. This should be sufficient, however, to foster a feeling that the health service staff member is a sufficiently reliable and trustworthy ally to enable the student to return for the second interview.

The second interview is the transition from a medical focus directed at diagnosing the physiological state of pregnancy and planning medical processes related to that state to one which attends also to her psychosocial functioning as matter of health service concern. It is in this interview that more information about the student can begin to be gathered through exploring the student's reaction to learning she was pregnant, her feelings since the last appointment, and her thoughts about how she plans to deal with it. The interviewer's style should continue to be directed toward maintaining a sensitive attunement to the student's psychological needs and state. Exploration of how the student has been feeling since she learned that the pregnancy test was positive, with whom she has talked about it, and what she has been thinking about how she plans to deal with the pregnancy should provide an opportunity to assess whether she has experienced a shock reaction or, if other forms of denial are evident, how she is coping with it.

It should be possible to explore the student's relationship with her sexual partner in relation to whether she has talked to him about the pregnancy and, if she has, what his reaction was. Sexual history can be explored naturally through exploring the circumstances of the pregnancy, including whether she was using birth control, the method, and her experience with it. The student's response may also provide an opening for exploring recent psychosocial functioning, although an impression of her functioning may well emerge without specific exploration.

The impression of the adequacy of her prior psychosocial functioning, the quality of her relationship with her sexual partner, and the degree of her struggle with denial in acknowledging the reality of the pregnancy provide the basis for beginning to assess the student's degree of risk. The results of this study indicates that those whose prior psychosocial functioning is marked by passivity and depression or a pattern of impulsive acting-out are at high-risk and likely to experience the crisis as mobilizing latent coping capacities or as overwhelming and leading to the solidification of maladaptive coping strategies. Those who were functioning well prior to the pregnancy were found to be at less risk for dramatic changes in level of functioning during the post-abortion period. Within this group, the experience appeared easiest to cope with when the pregnancy resulted from a casual relationship.

Intervention directed toward underlining independent coping and mastery are likely to be most facilitative of successful adaptation. For example, if the student appears to be looking to others such as sexual partner, peers, or parents to help her make the decision is likely to experience an intervention directed toward underlining that it is her decision and she who will have to live with the consequences as supportive of independence. Signs of independent coping are to be encouraged. For example, the thrust toward independent mastery in students who express a determination to go to the procedure by herself, even though this may have a counter-dependent flavor, can be supported by underlining the independent thrust by saying something such as the following: "It sounds like it is very important to you to handle this experience by yourself."

Evidence of continuing denial, dissociation and/or evidence of thinking about the pregnancy in the context of a dialogue with family members are to be regarded as poor prognostic signs, particularly among those in the high risk group. Among those in the middle range group, indicators of a shock reaction, a stable, committed relationship, and/or Catholic religious background may be early indicators of difficulty closing the experience. Similarly, evidence of happiness about the pregnancy and/or serious consideration of continuing the pregnancy when the student plans to terminate it may be early indicators of difficulty in closing the experience as well.

These early indicators of the direction of a student's resolution of the crisis must be regarded as tentative and as only providing the basis for further exploration in the post-abortion interview. Thus, they constitute guidelines for further refinement of the evaluation process during the post-abortion period for it is only then that assessment of the degree of risk and a judgement as to the need for referral can be completed. The process of this exploration of the circumstances surrounding the student's pregnancy should help the student develop a trusting relationship with the health service staff member if the interview is well handled. This relationship will increase the likelihood of the student's returning to the health service for post-abortion follow-up care.

The third interview is to be scheduled in the weeks following the abortion. It is partly medical in focus, including screening for post-abortion complications and any necessary physical examination. It also includes exploration of the student's reaction to the termination procedure and her adjustment between the procedure and the interview. The differences in

the direction of the students' resolution become most evident following the abortion as they work on the second stage of the crisis.

For example, among the high risk group the dominance of coping in the Progressive group was clearly evident in their upbeat mood and excitement about their recent steps toward mastering previous difficulties in the interview following the abortion, indicating that they were well on the way to solidifying their progressive adaptation and not in need of supportive services. This interview should be directed toward supporting these student's sense of achievement and mastery by underlining it. No other intervention is indicated although an invitation should be extended to the student to check in anytime she wishes to keep the interviewer posted on how things are going for her.

In contrast, the evidence of depression or continuing denial following the abortion in those who achieved a Poor outcome was indicative of the course of their eventual resolution. While both of these groups were resistant to intervention, those who were headed toward a poor adaptation justified special efforts to identify them and make an effective referral to the counseling service. Indicators of poor post-abortion adaptation such as preoccupation with the experience of the procedure, symptoms of depression, the development of psychiatric symptoms, or bravado in describing the procedure as an ironic and/or humorous event should be taken most seriously and effort should be directed toward engaging the student in psychotherapy directed toward promoting mastery and containing further symptom development. These students are likely to be the most resistant to referral and may require considerable patience and artfulness. The staff member's relationship with the student is the greatest

asset in achieving the referral and may make it possible for the student to consider the seriousness of her symptoms. It may be that this is the most that can be achieved during the third interview and that it will be necessary to urge the student to think it over for a few days and come in to talk about it further. Additional steps to facilitate the referral such as a joint interview to introduce the counselor and the student may be indicated.

The differential diagnosis between those headed for progressive and poor adaptation requires exploration and the use of clinical judgement. In this study, some of those headed for poor adaptation responded to initial questions about their functioning by saying that everything was going well for them. It was only through exploring more of the details of the student's experience that the symptom picture emerged. In some cases this took the form of a brittleness in the student's presentation and later revelation of data which contradicted it. In contrast, those who achieved a progressive adaptation told of their achievements in way which felt rooted and real to the interviewer. These differences, although subtle and requiring the use of clinical judgement, were confirmed in the differences in their functioning three to six months later. Therefore, the interviewer should not allow this interview to be rushed and should listen carefully for indications of difficulty.

The differences in the medium risk group were less evident at this time. Those who became pregnant as the result of a love relationship and experienced the pregnancy as a product of love may require a period of grief to work through its loss. Therefore, the assessment of these students should include evaluation of the student's access to her sexual partner and inquiry regarding whether they talk about what the experience meant to

them. In those instances where the sexual partner is unwilling or unavailable to share the grief work, the student should be encouraged to find a person with whom to work on the feelings. This may include referral to the counseling service. Follow-up meeting may be advisable to assess the student's progress on the grief work. These students are likely to be less resistant than the high risk students. The majority of them in the sample said that they would have participated in a program of counseling if it had been offered to them, suggesting that they recognized a need for assistance in working through the feelings associated with the pregnancy.

Evaluation of the Crisis Program. Given the provisional nature of these recommendations, a program of evaluation is indicated to assess the clinical usefulness of the recommendations and to monitor and develop intervention techniques. While a comprehensive evaluation is desirable, it may not be feasible in light of limited resources. At the least, some low technology format such as an on-going case discussion and study group including a trained mental health professional should be instituted.

Other College Health Services

The impact of unplanned pregnancy and abortion on the psychological development of college women has received inadequate attention in college health. The fact that it stimulated a developmental crisis in nearly all of the subjects in this study and that the resolution of that crisis was so variable indicates that it merits more attention. If, as seems likely, women at other colleges experience it as the women in this study did, programs of intervention are indicated.

It is possible, however, that the population of other colleges may be sufficiently different that their students react differently to the life crisis of pregnancy. It is striking, for example, that so few of the subjects in this study gave serious thought to the option of continuing the pregnancy and that, to the health service staff's knowledge, no pregnant student in recent memory has chosen to continue a pregnancy even though the college and the health service are committed to helping pregnant students and young mothers complete their education. This raises the possibility that values of the college which stress career and self development, as well as the values of the students it attracts, create a social atmosphere in which having a child during the college years is not an option. Thus, the socialization of these subjects may anticipate the problem of pregnancy in a way which rules out any option other than abortion, even among those who oppose abortion as a matter of personal morality and political conviction. Students at other colleges may be socialized differently. For example, students at urban public commuter colleges or at colleges dominated by a fundamentalist religious orientation may have a different socialization which may affect the degree to which unplanned pregnancy stimulates a developmental crisis.

The meaning of the experience of unplanned pregnancy and abortion to college women requires serious investigation by college health personnel concerned with safeguarding their student's psychological development. While it may have somewhat different meanings to differing student groups, this study indicates that it merits careful attention and that it is likely that new services will need to be developed. Those college health services already overburdened by service demands may need to seek additional

resources in order to provide the support students in this crisis appear to require.

Abortion Clinics

Counseling is a usual part of the service provided by abortion clinics to their patients. This counseling is usually provided using the same basic techniques and strategies for all patients. This study, however, suggests dramatic variation in the meaning and impact of the experience on college-age subjects, indicating the need for differential assessment and service. The failure of many patients to return for follow-up visits may be indicative of failure to individualize counseling.

The matter of continuity of care also merits closer examination. This study suggests that the health care provider who diagnoses the pregnancy may be in the best position to assess and monitor the impact of the experience on the patient. The usual process in which one health care professional diagnoses the pregnancy and refers the client to an abortion clinic for the procedure and its follow-up care, has the effect of fragmenting services in a way which interferes with responsible monitoring of physical and psychological adjustment post-abortion. Abortion clinics should initiate new procedures to assure appropriate continuity of care such as arranging for the initial health care provider who diagnosed the pregnancy to provide the follow-up care when feasible.

Other Medical Services

The frequency of the shock reaction at the time of the medical confirmation of pregnancy and the subjects' vulnerability and difficulty

fully comprehending what was said to them during that state raises serious question about a patient's capacity to provide informed consent for treatment while in the shock state. It is unlikely that this reaction is limited to college women when they are told that a pregnancy test was positive. It is more likely that this is a feature of the experience of many people when they are told of a diagnosis which may have a profound impact on the future course of their life. Therefore, health care providers need to develop procedures sensitive to the possibility of the shock reaction and providing mechanisms to assure informed consent.

Implications for Research

Social Work Research Methodology

The effort to find bridges between social work research and practice in recent years has focused largely on using research methods to inform practice. The literature on single subject design is one example of this strategy. This project took the opposite approach, using clinical practice methods to inform research processes. From the point of view of research design, it can not be described as an elegant study. However, as an exploratory effort to discover the service needs of a client population dealing with an emotionally charged and evolving experience, the clinical strategies and sensitivity which informed the conduct of the study were ideally suited to the research task.

The study used a combination of hypothetico-deductive and phenomenological models of research. It was shaped by the researcher's interest in understanding clients' experience in terms of its impact of their psychological development. The literature which appeared most useful was

that limited amount which examined the pregnancy and abortion process from a developmental perspective. Thus, the literature and the researcher's developmental perspective provided an over-arching theoretical framework.

The data collection process, however, was phenomenological in that it assumed that the subjects were the best informants about the nuances of their experience and the task of the interview was to attempt to create the conditions under which they could talk about their experience most fully. During the interview process, an effort was made to stay as close as possible to the clients experience and to forestall clinical judgements until all the data were collected. The analysis of data began with an effort to stay as close to the subjects' report of their experience as possible and to sift the interview material for commonalities and themes which could provide clinically useful patterns to organize it. The researcher's theoretical perspective inevitably shaped the perception of patterns and the organization of the data, in large part because it shapes how he thinks. In so far as was possible, however, an effort was made to let the categories emerge from the subjects' accounts of their experience.

Although the research made an effort to stay as close as possible to the subjects' account of their experience, clinical judgement played a role in evaluating the meaning of what the subjects said. Clinical concepts such as the defenses of denial and reaction formation were used to evaluate the meaning of some of these data. These concepts were drawn on when there were puzzling conflicts in a subject's story or a tension between the affect and the content. For the most part, however, the effort was to stay as close to the subject's data as possible and, when clinical concepts which changed

the meaning of the what a subject said were used, to check that judgement against corroborative data elsewhere.

One example of this was the clinical judgement used in assessing the presentation of the poor adaptation subjects during the research interview scheduled in the weeks following the abortion. While several of them reported feeling much better since the abortion, using words of a similar character to that used by the progressive subjects, the words tended to be unconvincing and were contradicted later in the interview by contradictory material. In contrast, the progressive subjects' felt more convincing and real and were not contradicted in the interview. The judgement about the meaning to assign to this difference was reserved until after the final interview. At that point, the difficulties in psychosocial adaptation of the poor outcome group was clearly documented whereas the improvement of the progressive group's functioning had continued for several months.

The results of the study suggest that this is a useful model for social work research. It was successful in discovering a need for service and in generating ideas about how a program of service could be mounted. Some of the study's least elegant features, the false starts and revisions that had to be made in study procedures, gave particularly useful insights to the development of effective service programs to aid this population. Thus, it appears to be a particularly useful model for studying sensitive, psychologically charged experiences. In such cases, it may be preferred to more conventional questionnaire research methods when the validity of the subjects' responses may be distorted by psychological processes such as the shock reaction, denial, or reaction formation.

The fact that it is derived in part from the methods of clinical social work practice may well make it a particularly harmonious approach to research for clinical practitioners. It is close to the world of practice in the way data is collected and in the practice problems on which it attempts to cast light. Therefore, it holds promise as a bridge between social work practice and research built from the practice rather than the research side. It may that practitioners will undertake more research on problems related to their practice if they are encouraged to use the process of clinical discovery which is familiar to them rather than feeling they must apply an unfamiliar set of technology to conduct research.

As a model for research, it is not without its limitations. One of the greatest of these is the problem of data analysis. The intellectual task of staying close to the data when it is composed of 16 compelling human dramas and sifting it to let categories emerge from the data requires enormous concentration for prolonged periods of time. This makes it a relatively time-consuming research approach which does not lend itself to speedy completion.

Implications for Further Research

The Psychosocial Impact of Unplanned Pregnancy and Abortion.

While this study indicates that unplanned pregnancy stimulated a psychological crisis in the development of the college women studied, further research is indicated to assess the frequency with which other groups of women experience unplanned pregnancy and abortion as crisis inducing as well as the variables which affect its crisis inducing potential. For example, as indicated previously in this chapter, it is possible that the

career oriented socialization of students at this college and the social milieu from which these students are drawn or to which they aspire has a significant impact on the character of their reaction. Studies at colleges which attract students different from those who attend a competitive, private, New England women's college or of non-college women between the ages of 18 and 22 may shed some light on socialization's role in the potential for this experience to induce a developmental crisis. This, in turn, may contribute to understanding more fully the impact of socialization on psychological development.

Further research is indicated on the impact of abortion on the development women at different stages of development as well. This study was limited to women between the ages of 18 and 22. The developmental impact of the experience on younger and older women should be investigated and programs developed based on differential assessment of the woman's stage of development and individual needs. In particular, the impact of unplanned pregnancy in adolescence needs further study. Because of the dramatic psychological changes occurring in adolescence, such studies should focus on charting its impact during the subphases of early, middle, and late adolescence.

The Shock Response. The discovery of the shock response at the time when the pregnancy was confirmed, its debilitating effect on the subjects' ability to assimilate information or make informed choices until the shock state had passed, and its invisibility to both the subject and the interviewer is a particularly provocative finding. It seems unlikely that this phenomenon is limited to pregnant college women. Further research is

indicated to assess the frequency of the shock state at the time of the diagnosis of other medical conditions in order to identify those diagnoses which are likely to stimulate this reaction. Such research could provide the basis for developing methods for identifying it when it occurs and strategies for insuring informed consent.

Developmental Theory. This study points to two areas in which developmental theory needs greater elaboration. The first is theory related to the transition to adulthood in the college years and the crisis inducing potential of various kinds of decisions upon that process. An unplanned pregnancy appears to be one; other events may have similar implications. A more elaborate charting of the stages of this transition and the effects of various experiences during those stages can be expected to contribute to effective intervention with this population. This transition may be somewhat different for those who do not go to college. An analysis of those difference should help provide effective services to under-served populations.

The second is related to understanding the process by which psychological readiness for pregnancy is achieved and the meaning of pregnancy at various developmental levels prior to the achievement of psychological readiness. A theory related to its changing meaning during the college years was proposed in the Chapter 4 which may provide the basis for further elaboration and exploration. In light of the rate of pregnancy among younger adolescents, particularly those from welfare and working class backgrounds, the elaboration of developmental theory regarding the impact of pregnancy in the younger adolescent age group

within that cultural milieu is of particular importance to developing service programs facilitative of their development.

APPENDIX A

RISK ASSESSMENT RATING SCALE

Today's date ____/____/____

Student's name _____ Class _____

Birth date ____/____/____ Religion _____

Ethnic Background _____ Religiosity _____

1). Has the student had previous pregnancies? yes ____ no ____.

If yes, give approximate dates. ____/____/____; ____/____/____;
____/____/____.

2). What is the student's relationship with her sexual partner?

2) (a). A long-standing significant relationship.

2) (b). A recent relationship of some significance to the student.

2) (c). A brief, insignificant relationship.

2) (d). Other, e.g., rape, etc. _____.

3). When did the student first suspect she was pregnant?

3) (a). Before she missed her first period?

3) (b). When her first period did not come on schedule?

3) (c). When her second period did not come on schedule?

3) (d). When the symptoms of her pregnancy were brought to her
attention by another person such as roommate, friend,
relative or health professional?

3) (e). Other _____

4). How long was it between first suspicion of pregnancy and first step toward seeking medical advice?

4) (a). Less than a week.

4) (b). One to two weeks.

4) (c). Three to four weeks.

4) (d). Five to eight weeks.

4) (e). More than eight weeks.

4) (f). Other _____

5). How active has the student been in planning what to do about the pregnancy?

5) (a). The student has a definite plan about how to deal with the pregnancy.

5) (b). The student is actively considering several options without marked evidence of psychological turmoil.

5) (c). The student is actively considering several options with evident psychological turmoil.

5) (d). The student appears bewildered by the pregnancy and appears to seek her other's advice about what course to take.

5) (e). The student appears detached from the pregnancy, looking to other's to make the decision about what course to take.

5) (f). If 4 or 5 above, whose advice does she seem most dependent on?

5) (f) (1). Boyfriend.

5) (f) (2). Relative.

5) (f) (3). Friend.

5) (f) (4). Health Service staff.

5) (f) (5). Other _____

6). How actively involved has the student been in planning for the abortion or the baby if she intends to continue the pregnancy?

- 6) (a). The student has taken primary responsibility for the planning including initiating contacts with the abortion service or initiating realistic plans for coping with the pregnancy and the baby, if she plans to continue the pregnancy.
- 6) (b). The student is involved in planning but appears to rely on the help of her boyfriend in doing so.
- 6) (c). The student is involved in planning but appears to rely on the help of her roommate, friend or relative in doing so.
- 6) (d). The student appears detached from the planning process, relying on her roommate, friend or relative to initiate planning and to accompany her to appointments.
- 6) (e). Other _____

7). How invested is the student in the pregnancy and plans to deal with it?

- 7) (a). The student is actively interested in the confirmation of the pregnancy and planning for it. There appears to be no doubt in her mind that it is she who is pregnant and she who must deal with this event in her life.
- 7) (b). The student seems bewildered by the pregnancy but takes responsibility for it as something that has happened to her.
- 7) (c). The student seems bewildered by the pregnancy, acts as if it were not a real event and seems primarily interested in her friend, roommate or relative rather than the pregnancy. It is the friend, roommate or relative who appears most concerned about planning for the pregnancy.
- 7) (d). Other _____

8). Does the student's planning for the pregnancy reflect a realistic concern for maintaining the on-going course of her life?

8) (a). The student's planning reflects concern about her capacity to continue pursuing educational, personal and social goals she held prior to the pregnancy.

8) (b). The student voices some concern over anticipated changes in her capacity to pursue her previous goals but this is not reflected in her planning.

8) (c). The student does not appear concerned about the impact of the pregnancy on her previous goals.

8) (d). Other _____.

9). Has the pregnancy precipitated a change in her relationship with her sexual partner? (omit if that relationship was not perceived by the student as a significant relationship.)

9) (a). The student reports a continuing relationship with her sexual partner and reports a strong positive relationship.

9) (b). The student reports turmoil in her relationship with her partner as a result of the pregnancy but she believes they will be able to work out their difficulties.

9) (c). The student reports turmoil in her relationship with her partner as a result of the pregnancy and suspects the relationship will terminate.

9) (d). The student's relationship with her sexual partner has terminated.

9) (d) (1). On her initiative?

9) (d) (2). On his initiative?

9) (d) (3). By mutual consent?

9) (d) (4). Other _____.

10). Has the pregnancy precipitated changes in her relationship with peers?

- 10) (a). The student has continuing relationships with several friends.
- 10) (b). The student's concern about the pregnancy has disrupted her relationships with peers. This is a source of concern to her.
- 10) (c). The student appears to have withdrawn from relationships with peers except for one female friend. She is concerned about this change in her functioning.
- 10) (d). The student appears to have withdrawn from relationships with peers except for one female friend and does not appear concerned about this change in her functioning.
- 10) (e). The student appears to have withdrawn from all relationships with peers. This is a source of concern to her.
- 10) (f). The student appears to have withdrawn from all relationships with peers. This is not a source of concern to her.
- 10) (g). Other _____.

11). Has the students attitude toward academic work changed recently?

- 11) (a). The student's attitude toward academic work has not changed recently and she is maintaining the same level of investment in her academic work. (include students who deny having had interest in academic work under item 11 e.)
- 11) (b). The student wishes to continue working as she has in the past and is concerned about recent difficulty in doing so.
- 11) (c). The student has lost interest in academic work. This is a source of concern to her.
- 11) (d). The student has lost interest in academic work and is not concerned about it.
- 11) (e). The student has not been interested in academic work while in college and her current unconcern does not represent a change.
- 11) (f). Other _____.

12). Has the student lost interest in social activities?

12) (a). The student maintains an active interest in social activities such as sports, parties, etc.

12) (b). The student reports diminished interest in social activities and is concerned about this change in her functioning.

12) (c). The student reports diminished interest in social activities and is unconcerned about this change in her functioning.

12) (d). The student has not been involved in social activities while in college.

12) (e). Other _____.

13). Do the student's parents or guardian know the student may be pregnant?

13) (a). No, and the student does not plan to tell them.

13) (b). No, but the student plans to tell them.

13) (c). Yes, the student told them she may be pregnant.

13) (d). Yes, they found out by other means than the student's telling them directly.

13) (e). Other _____.

14). What does the student expect her parents' or guardian's reaction to be if they find out she is pregnant?

14) (a). Supportive and helpful.

14) (b). Initially upset, disappointed or angry but giving way to helpful support after they have recovered from the initial shock.

14) (c). Disappointed or angry and unsupportive of her efforts to figure out what to do about the pregnancy.

14) (d). Angry to the point of withdrawing support for education and maintenance.

14) (e). Other _____.

15). If the parents or guardian know the student may be pregnant, what has their reaction been?

- 15) (a). Helpful and supportive of the student's efforts to think through how she wants to handle the pregnancy.
- 15) (b). Helpful and supportive but tending to take over the responsibility for planning how the student should deal with the pregnancy.
 - 15) (b) (1). The student argues with them and asserts her right to make her own decision.
 - 15) (b) (2). The student feels she should comply with their plan but makes it clear she does not support it fully.
 - 15) (b) (3). The student appears to comply passively with their plan and appears to be primarily invested in them rather than her pregnancy.
- 15) (c). Disappointed or angry initially but giving way to helpful support after recovering from the initial shock.
- 15) (d). Disappointed or angry and unsupportive of her efforts to figure out what to do about the pregnancy.
- 15) (e). Disappointed or angry and threatening to or actually withdrawing support for future education and maintenance.
- 15) (f). Other _____

16). Does the student give evidence of thinking about the fetus as a baby?

- 16) (a). In discussing the pregnancy, the student makes no reference to the fetus as a baby and shows a primary interest in terminating the pregnancy in order to continue the life course she was involved in prior to the pregnancy.
- 16) (b). In discussing the pregnancy, the student refers to having occasional thoughts about the fetus as a potential baby and reports conscious efforts to suppress such thoughts.
- 16) (c). The student reports having periods when she has pleasureable fantasies about caring for the baby and reports having to banish these thoughts from her mind in order to think about realistic planning for the pregnancy.
- 16) (d). The student reports having pleasureable fantasies about caring for the baby. She reports feeling disorganized and guilty about considering abortion in the light of these fantasies. She describes the option of abortion in terms of "killing" the baby.
- 16) (e). Other _____

The next section of this questionnaire asks you to estimate the level of the student's adaptive functioning prior to becoming pregnant. It involves rating the student's functioning in three areas: social relations, academic functioning and use of leisure time.

17). Social relations

- 17) (a). The student reports getting along well with peers generally and having several good friends including boyfriends.**
- 17) (b). The student reports having several close friends including boyfriends but reports having difficulty with others in her dorm.**
- 17) (c). The student reports having several close female friends, no boyfriends and difficulty with others in her dorm.**
- 17) (d). The student reports having better relationships with men than with women, has an active social life with men but has no close friendships with women.**
- 17) (e). The student reports having an exclusive relationship with a boyfriend and no other significant relationships.**
- 17) (f). The student reports having an exclusive relationship with one close female friend and no other significant relationships.**
- 17) (g). The student denies having any significant relationships except with members of her immediate family.**
- 17) (h). The student describes herself as isolated, having trouble with interpersonal relationships generally and is distressed about it.**
- 17) (i). The student appears to be socially isolated, does not report significant friendships and appears either resigned or unconcerned about it.**

18). Academic functioning

- 18) (a). The student reports enjoying her academic work and satisfaction with her level of achievement.
- 18) (b). The student reports a good level of academic achievement but wonders if she can keep up with it all.
- 18) (c). The student reports a good level of academic achievement which she can only maintain at the cost of considerable anxiety and tension which interferes with her functioning in other areas.
- 18) (d). The student reports having difficulty maintaining an adequate level of academic achievement and can only maintain it at the cost of constant worry and stress.
- 18) (e). The student reports a failing level of academic achievement, is appropriately concerned about it, and is working hard to overcome her academic difficulty.
- 18) (f). The student reports a failing level of academic achievement, appears bewildered and disorganized in her efforts to do something about it.
- 18) (g). The student reports a failing level of academic achievement but appears unconcerned about it.

19). Use of leisure time

- 19) (a). The student reports having an active interest in sports and/or hobbies which are an important part of her life and which are a source of pleasure.
- 19) (b). The student reports an interest in one or more sport or hobby which she enjoys but which she participates in only occasionally.
- 19) (c). The student reports an interest in one or more sport or hobby but does not engage in it.
- 19) (d). The student reports having no interest in sports, hobbies or other leisure time activities.

20). Does the student have a history of psychiatric illness? If so,

20) (a). Has she been seen in psychotherapy? Yes ___ No ___

20) (a) (1). If yes, When ___/___/___.

20) (a) (2). For how long? ___ weeks ___ months

20) (b). Has she had a major mental illness? Yes ___ No ___

20) (b) (1). Was she hospitalized? Yes ___ No ___

20) (b) (2). If yes, When ___/___/___.
For how long? ___ weeks.

20) (c). If she has not had a major mental illness, has she been seen in psychotherapy for prolonged difficulties in adjustment--in contrast to being seen in treatment for situational or developmental issues of a time-limited nature? Yes ___ No ___.

21). Plan for the Future

21) (a). Does the student plan to get a full-time job following graduation? Yes ___ No ___

21) (b). If yes, would she plan to work following marriage?
Yes ___ No ___

21) (c). Does the student plan to go to graduate school following graduation? Yes ___ No ___

21) (d). If yes, can she imagine interrupting her career for marriage? Yes ___ No ___.

21) (e). Parenthood? Yes ___ No ___

21) (f). If a choice had to be made between marriage and a career which would be most important? Marriage ___
Career ___.

21) (g). If a choice had to be made between parenthood and career which would be most important?
Parenthood ___ Career ___.

21) (h). How many children would she like to have? ___

21) (i). Which sex would she prefer her children to be?

21) (i) (1). Boys ___

21) (i) (2). Girls ___

21) (i) (3). Boys and Girls ___

21) (i) (4). No difference ___

APPENDIX B**CONSENT FORM**

The Student Health Service is undertaking a study to gain better understanding of the impact of how college women cope with unplanned pregnancy. The purpose of the study is to enable the Health Service to develop more effective services to pregnant students in the future. As part of the study, we would like to interview all students who have a positive pregnancy test at the Health Service this Fall. They will be asked to participate in two other interviews this semester and one follow-up interview next semester to help us learn about college students' reactions to pregnancy.

All information gathered in this study will be treated as strictly confidential. Your answers to our questions will not become a permanent part of your health record. The anonymity of the participants will be protected in any presentation or publication resulting from the study.

The Health Service incurs no special obligations or risks in connection with this study beyond those normally assumed by them in the care of any student.

Students are free to decline to participate and, if agreeing to participate, may withdraw from the study at any time.

I agree to participate in the Health Service study described above. I understand that I will be asked to participate in additional interviews and that I may withdraw from the study at any time.

Signed _____.

Witness _____.

APPENDIX C

INITIAL INTERVIEW PROTOCOL

The purpose of this protocol is to provide a framework for the problem pregnancy study interviews. They are to be semi-structured interviews in that the interviewer is requested to attempt to gather data in each of the suggested areas in as systematic a manner as the differing situations of subjects permit. It is important that the data requested and the circumstances of the interview are as consistent as possible. However, tact and clinical judgement may require some alteration in the interview format.

1. Present the results of the pregnancy test.
2. Explain the project and request the student's participation.
 - a. If permission is not granted, assure the student any information presented will be treated as confidential and will not be included in the study. Then proceed with the interview required for medical purposes. Disregard the rest of this form and other study-related materials.
 - b. If permission is granted by signing the consent form, proceed with the interview.
3. Explain the rationale for the interview and the questions to be asked along the following lines. "We know that discovering one is pregnant often stirs up feelings of a variety of kinds. It is useful to explore these feelings as a part of deciding how you want to cope with the pregnancy. Therefore, I will be asking you questions about your family, what you were told about sex, sexual prohibitions or support for your curiosity about sexual matters. Feelings about a pregnancy are also often related to the sexual partner so I will be asking questions about him. If some questions I ask seem intrusive or if you would prefer not to answer, please feel free to say so.

We believe the more aware one is of one's feelings, the more one grows. I might also tell you that people's feelings often change and having feelings later you don't have today is not abnormal. Again let me stress the confidentiality of the interview. I will be sharing its content only with Mr. Givler, the counselor who is working with me on this project. Do you have any questions before we start?
4. Proceed with the interview using clinical judgement with regard to the most discreet way to explore the following topics.

- a. History related to this pregnancy including relationship with her sexual partner.
 - b. When did she first suspect she was pregnant?
 - c. What plan does she have for how she will cope with the pregnancy?
 - d. Sexual history, including sexual information, family attitudes, and contraceptive history.
 - e. Relevant family history.
 - f. Social functioning prior to becoming concerned she might be pregnant and recent changes in functioning.
 - g. Other events it would be helpful for us to know about.
5. End the interview by exploring how the student felt about the interview. Remind the student of the structure of the project and offer to introduce her to the counselor who will interview her twice over the next several weeks and again next semester.

APPENDIX D
 Dictation Guide
Initial Interview

1. Description of the student.
2. Student's reaction to the pregnancy test results.
3. Plan with regard to coping with the pregnancy.
4. History related to this pregnancy and her relationship with her sexual partner.
5. Sexual history including contraceptive history.
6. Family history.
7. Social functioning prior to becoming concerned she might be pregnant.
8. Recent changes in social functioning and her degree of evident concern about them.
9. Other data.
10. Impressions.

APPENDIX E

REVISED FIRST INTERVIEW PROTOCOL

10/4/83

This revision of the procedure for the medical interview conducted by the Medical Director was developed in response to several students who felt the originally planned procedure to be intrusive and felt exploited as a result of their initial participation in the project.

One factor which the previous procedure did not take into account is the extent of the state of emotional shock some students experience in response to the confirmation of pregnancy. In this state of shock, several students felt that interactions with Health Service personnel not directly related to helping them with their here-and-now problem constituted a failure of empathy. They also have felt general questions as to the influence of their Catholicism on their abortion plans or their plans for a family in the future as a further failure in empathy in that it undermines their efforts to repress thoughts in those areas which they have felt undermining of a course of action which they feel they must take.

A second factor which has become evident is the degree to which some students feel that they no choice but to have an abortion. It is striking that students appear to make the decision to terminate the pregnancy within seconds of being told the pregnancy test was positive.

This kind of "choice," when the student feels she has her back to the wall, is likely to be experienced as a passive choice. If the student takes

some time to think through the consequences and alternatives to the course she eventually decides on, she may have a greater sense of having made an active rather than a passive choice, even when the eventual decision is the same as the one originally considered. It is suggested, therefore, that the medical interviewer outline for the student what her choices are and encourage her to take a few days to consider what she wants to do. It is hoped that this will aid students in gaining a greater sense of mastery over the experience by increasing her sense of control.

PROCEDURAL REVISIONS:

The medical interview will be divided into two parts.

1. The first will be seen as a contact interview to give the student a chance to meet the Medical Director and for the Medical Director to show her interest in the student as an individual by asking whether the student is feeling surprised about the results of the test and what she is thinking about whom she will talk to about her feelings.

If the student has already determined a course of action, the Medical Director will suggest that there are other alternatives the student may wish to consider as she is making up her mind about what she definitely wants to do. She will then set up an appointment for several days later after the student has had some time to think to help her make definite plans related to her decision such as scheduling an appointment for an abortion if that is the course the student has decided upon.

The Medical Director will tell the student that the Health Service is undertaking a study to gain better understanding of the impact of unplanned pregnancy on college women in order to enable the Health

Service to develop more effective services to pregnant students in the future. As part of the study, we would like to interviewing all students who have positive pregnancy test at the Health Service this Fall.

If the student agrees to participate in the study and signs the informed consent form, a time will be set up to meet with the co-investigator for the contact interview and to schedule the first research interview. If the student appears ambivalent about participating, she will be encouraged to take her time to think over participating in the project.

2. The second interview will be several days later and will focus on the student's decision and being helpful to her in making concrete arrangements to effect the decision, to set the time parameters for making a decision if the student has not yet arrived at one (the consequences of delaying the decision beyond a certain number of weeks, etc.), or how the Health Service can be helpful with prenatal care, etc., if the student has decided to continue the pregnancy to term.

Students who are ambivalent about participating in the first contact will be asked if they have thought further about participating in the study during this interview and their thoughts will be explored. The procedures outlined above will be used with those who agree to participate. Those who are still ambivalent will be told to take as much time as they need to make up their minds. The matter will be dropped with those who have made a definite decision not to participate.

In the course of these meetings students may reveal data which would have been gathered during the originally planned research interview

or it may seem tactful to inquire about areas the student has not discussed. This data will be recorded where it is available but the focus of the interviews will be on helping the student deal with her concerns, not data collection.

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