PREGNANCY AND MOTHERHOOD MOTIVATION IN UNMARRIED WOMEN: SOME INTRAPSYCHIC, INTERPERSONAL, AND BEHAVIORAL FACTORS

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ABSTRACT

PREGNANCY AND MOTHERHOOD MOTIVATION IN UNMARRIED WOMEN: SOME INTRAPSYCHIC, INTERPERSONAL, AND BEHAVIORAL FACTORS

By

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The purpose of the present study was two-fold. First, an attempt was made to investigate if premarital pregnancy is specifically motivated. Second, an assessment was made of certain personality factors that may account for this motivation.

The adequacy of birth control use and frequency of sexual intercourse were the two behavioral factors assumed to affect the chances of premarital pregnancy. The type of sexual relationship, temporary or steady, in which the sexual activity occurs, was also expected to affect the motivation for pregnancy. All three factors, birth control use, sexual frequency, and type of relationship, were the independent variables in a 2 x 2 x 2 design.

Fantasies of pregnancy and motherhood, daydreams of having children and anticipation of abortion were assessed to establish the link between the use of birth control and the motivation for pregnancy and motherhood.

Two conceptually different levels of femininity, gender identification and sex-role style, were also assessed as possible contributing factors relating to birth control use and pregnancy motivation.

It was hypothesized that women using adequate birth control would have less fantasy of pregnancy and motherhood, be less feminine (more assertive) in their sex-role style, and more feminine in their gender identification than women using inadequate birth control. Further, it was hypothesized that among the women using inadequate birth control, those with high sex frequency would have more fantasy of pregnancy and motherhood and be less feminine in their gender identification than those women with low sex frequency. Also hypothesized was that women with a steady relationship would have more fantasy of pregnancy and motherhood and be more feminine (more interdependent) in their sex-role style than women having temporary relationships.

A total of 468 subjects were given questionnaire material. From this sample, the responses of 129 sexually active women were selected for the analyses who met the criteria for adequate-inadequate birth control use, steady or temporary relationship, and high or low sex frequency. The measures included thematic apperception stories for pictures chosen to elicit pregnancy/motherhood imagery, the Franck Drawing Completion Test (Franck and Rosen, 1949), a Sex-Role Style measure (McClelland and Watt, 1968), the

Femininity Scale of the California Psychological Inventory (Gough, 1957, 1966), questions pertaining to daydreaming about children and future plans if pregnancy occurred as well as questions on sexual, contraceptive, and dating habits. A Motherhood Thema Score and Pregnancy Thema Score were derived from the TAT-type stories.

There was some evidence that premarital pregnancy is motivated. Daydreaming of having children occurred significantly more often among women using inadequate birth control than among those using adequate birth control. An interaction with type of relationship was evident for the anticipation of abortion measure, with those in temporary relationships using adequate birth control anticipating terminating a pregnancy through abortion most often. The scores derived from the TAT-type pictures did not yield any differences. This was attributed to the strong stimulus pull of the pictures used.

The birth control x relationship interaction for sex-role style was also significant. Results showed that women in temporary relationships using adequate birth control were significantly more assertive than steady relationship women using adequate birth control. A trend was also found for adequate birth control users to be more assertive than inadequate users among temporary relationship women. Findings were attributed to the focus on motherhood in a female's upbringing and the need for assertive behavior to obtain contraceptives and to

maintain temporary relationships. The possibility of the involvement in a relationship changing personality structure was also discussed.

A significant finding was also obtained for the type of relationship x sex frequency interaction on the Franck Drawing Completion Test. Women who have high sex frequency in temporary relationships were more feminine in their gender identification than women with low sex frequency in temporary relationships as well as women with high sex frequency in steady relationships. It was suggested that security in one's female body concept may be related to expressing the body sexually. Gender identification was not found to be directly related to birth control use. However, age proved to be significant with older women using adequate birth control more often than younger women.

A model was presented that conceptualized the factors involved in premarital pregnancy as occurring in three realms: the intrapsychic, the interpersonal, and the behavioral. This provided a new perspective on the data and suggested limitations in the design. Viewing birth control use as a dependent variable may be more productive. Type of relationship was shown to predict sex frequency which in turn predicted the adequacy of birth control use. Directions for future research were also discussed.

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By

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TABLE OF CONTENTS

LIST OF TABLES

Figu

1.

2.

3

LIST OF FIGURES

CHAPTER I

INTRODUCTION

While the Kinsey (1953) report dominated the field of sexuality in the 1950s and Masters and Johnson's (1966) work was crucial in the 1960s, the women's liberation movement which began to reach prominence in the late 1960s provoked a renewed interest in the nature of female sexuality. Whatever the value one attributes to Freud's conceptualizations of feminine sexuality, the psychoanalytic writers have predominated in publications of a theoretical nature in this area. Empirical research has been comparatively lacking and while the Kinsey report and Masters and Johnson's study were milestones in sexuality research, they were not of a psychological nature. Reexamination of the nature of a female's identity, her sex role, and sexual functioning, triggered in part by the women's movement, has now encouraged a beginning to comprehensive works on female sexuality from a psychological perspective (Fisher, 1973). Concern with population growth problems has also brought upon an increased attention to female sexuality insofar as

it relates to the use of birth control and family planning (Pohlman, 1969; Fawcett, 1973).

Though clinical work needs empirical backing, it frequently stimulates deliberations that leads to extensive research. In the course of psychotherapeutic work with female adolescents and adults, the clinician becomes aware that a certain segment of them report frequent fantasies of either becoming pregnant and/or becoming a parent. The wish to be a mother usually involves a fantasy of having an infant child and the closeness and warmth that accompanies this relationship as well as strong senses of feeling womanly. Fantasies of this type while probably experienced by most women, occur in varying degrees and intensities and may play a role in motivating certain kinds of sexual behavior. Writers in the field of illegitimate births (Roberts, 1966) for example, have proposed that a wish for a child, triggered by a variety of psychological factors, contributes to the high number of illegitimate births. But fantasies of course do not cause pregnancies, only behavior, and thus it is crucial to connect the fantasy material to actual behavior manifestations of sexuality.

The present study then investigates motivation for pregnancy and motherhood by examining the fantasies for pregnancy and motherhood and feelings and conflicts of femininity in unmarried women engaging in sexual intercourse. Since frequency of sexual activity and the use of contraceptives are two behavioral factors contributing to

the possibility of translating the fantasy of pregnancy into actuality, these two behaviors are key variables in the study. Furthermore, since sexual intercourse is not a purely individual act, but rather occurs in the context of a relationship, the type of relationship, that is, steady or temporary, is considered.

Several research areas can be isolated that are relevant to the present theses: premarital pregnancies, contraception, premarital sex and intercourse frequency, and interpersonal relations and premarital sex practices. Though there is considerable overlap in some of these areas, for the sake of clarity, these topics will be reviewed separately.

Premarital Pregnancy

There has been controversy in the field as to whether premarital pregnancies are specifically motivated (Roberts, 1966) or whether they are an accident of sexual activity (Furstenburg, 1971). A number of theorists and researchers have stated that unwed pregnancies are motivated by unconscious mental processes. Psychoanalytically-oriented writers (Kasin and Handschin, 1941; Clothier, 1943; Deutsch, 1945) view premarital pregnancy as having been motivated to meet the needs of unresolved oedipal conflicts. These writers isolate two types of girls, one of whom looks upon the mother as a prostitute and who identifies with her by acting out the

role. Clothier (1943) states that though fantasies of rape and prostitution are common during adolescence, the girl who unconsciously views her mother as a prostitute and has a poor sense of reality, will act out these fantasies. A second type, acts out a fantasy of an "immaculate conception." This girl denies the role of sexuality while accepting motherhood in an attempt psychologically to play the dual role of man and woman, thus attempting to replace the missing penis. This girl therefore, has not accepted her feminine role.

In an extensive clinical examination of ten girls under 16 years of age who were pregnant, Bernard (1944) found that "unclear and conflicted" femininity had led to promiscuity and unwed pregnancies. No controls were used, however, and findings could have been a function of the pregnancy experience or interviewer demands. Blain (1967) also remarked, on the basis of clinical experience, that only conception is adequate proof of femininity for some women.

Young (1954), on the basis of extensive interviews with 100 pregnant girls, differentiated the girls as coming from homes where either the mother or the father had the preponderance of authority and control in the family constellation. Those coming from "mother-dominated" homes were motivated by both love and hate for the mother: the young girl shames the mother by having the baby but in turn offers the baby to the mother as proof of her love.

The ambivalence toward the mother leads to an inability to feel and act as a woman according to Young, and the baby represents a sign of maturity. For those girls coming from "father-dominated" homes, the primary motivation is viewed as revenge against a hated father.

Vincent (1961) in an extensive study of premarital pregnancy, found that the unwed mothers from broken and intact homes scored lower on a measure of femininity (the Femininity Scale of the California Psychological Inventory) than did a matched group of single never-pregnant females from broken and intact homes. Though it is not clear whether this reflects pre-pregnancy attitudes on the part of the unwed mothers, Vincent hypothesizes that if this is the case, females low in their femininity are less secure in their chances of finding men, marrying, and having children and thus would be more likely to engage in premarital sex than those comfortable in their femininity. However, Vincent did not present data supporting the contention that unwed mothers differed from the controls on frequency of premarital intercourse, and thus it is possible that such factors as the use of birth control or differences in fecundity accounted for the differences in femininity scores, more than the premarital sex variable.

Segal and Ducette's (1973) research points to the importance of considering sociological variables in studies of this type. They found that in a White middle class high school, pregnant girls had a more external locus of control

while the non-pregnant girls were more internally focused. The opposite was evident in a lower class Black school where the pregnant girls were the more internally focused.

In another study (Snyder, 1968), premaritally pregnant girls, (ages 16-23), were differentiated by the degree of stability of the relationship with the putative father: from pick-up to engaged, and assessed on a number of psychological measures. The study concluded that those girls having the most casual relationships with the putative fathers conform most to the stereotype of the unwed mother as insecure and conflicted. Steady and engaged girls were emotionally healthy.

One recent study (Lynch, 1973) used a college student population to assess personality factors in premaritally pregnant women who were seeking abortions. Thirty-sex pregnant women were matched with non-pregnant college women on age, race, religion, and income. No differences were found between these two groups on the Rotter Internal-External Scale, Berger Self-Acceptance Scale, the intropunitive factor of the Rosenzweig P-F Test, and on a five-question item pertaining to female reproductive activities. It should be emphasized though, that the pregnant women were a special subset, in that they were all seeking abortions. Further, the matched group included some non-coital women.

A number of other researchers have also found no differences between unwed mothers and matched controls and

concluded that small differences found are a function of the pregnancy experience and the concomitant anxiety of being an unwed mother. No differences were found in self-esteem between pregnant single women, pregnant married women, and single non-pregnant women (Barker, 1969). In a study comparing Rorschach responses of three groups of women (Wagner and Slemboski, 1968), only differences in the light shading response was found with pregnant unmarried women scoring highest, non-pregnant married women next, and pregnant married women lowest. This was interpreted as indicative of feelings of doubt and anxiety and attributed to a reaction to living in a home for unwed mothers.

Furstenberg (1971) also questioned the past assumption that unwed pregnancy is specifically motivated. He contends that pregnancy is "the unanticipated outcome of sex activity." In investigating the use of birth control in unwed mothers, he found that the family influence is conditional on the nature of the relationship with the father, that is, only when an ongoing relationship with the male is maintained is the girl able to influence her partner vis à vis birth control and thus benefit from her mother's instructions.

What little research that has been done then in this area has not clarified whether the pregnancy of unwed mothers is motivated and if so, what psychological factors contribute to the motivations. Inconclusive research seems to stem, in part from difficulty in obtaining

populations representative of the premaritally pregnant female and adequate controls. Further, psychological differences that are found can be a function of the pregnancy experience rather than of preexisting psychological factors. The latter problem could be dealt with by studying non-pregnant females who have a high likelihood of becoming pregnant. Females who have frequent sexual intercourse without the use of birth control measures would fall into this category. Further, past research (Vincent, 1961) has not adequately controlled for sexual experience and thus differences could be attributed to motivations for pregnancy or for sexual coitus. Looking at the use of contraceptives could also control this confounding variable.

Contraception

Much of the research on the use of birth control has stemmed from concern with population problems (Fawcett, 1973) and thus has primarily dealt with married people. Though there is surely an overlap in the psychological variables related to birth control use in married and unmarried people, it is not clear how much of the research with married women can be generalized to include unmarried women. Further, much of the past research has been concerned with non-psychological variables and therefore will not be reviewed here.

However, one fact that emerges from the research is that large numbers of adolescent females are not using any

birth control to prevent conception. In a study that attempted to obtain a representative sample of adolescents in America (Sorenson, 1973), even in the 16-19 year old group, 38% did not use any birth control at their last intercourse. When one considers that among those who did use birth control, not all used it consistently, nor did they all use effective techniques, it becomes clear that many girls in this age group take chances of becoming pregnant. Kantner and Zeknik (1973) similarly found that 53% of the 15-19 year olds in their sample failed to use any contraceptives the last time they had intercourse. Even among those in college, 35% did not use any birth control at last intercourse.

Ignorance of birth control techniques does not appear to be the only explanation of the current situation. Monsour and Stewart (1973) found that among 102 abortion seekers from a university, the majority were aware not only of contraceptive techniques but knew that they were available at the local health services.

For unmarried women, a high use of birth control has been related to an internal locus of control (McDonald, 1970; Lundy, 1972) low degree of dogmatism (Lundy, 1972) and fear of parental rejection with pregnancy disclosure (Brashere, 1971). In the McDonald (1970) study, the locus of control variable did not vary with the number of sexual partners or the time of first intercourse. These studies all used college student populations.

Furstenberg (1971) reports that among pregnant unwed Black girls of low socio-economic status, past birth control use was most frequent when the mother knew of the girl's sexual activity, as confirmed by both the girl and the mother. However, girls were only able to benefit from their mother's instructions if their sexual activity was in the context of an ongoing relationship with the partner. Unfortunately, this study did not include any nonpregnant control subjects.

A number of researchers examined the use of contraceptives and its relationship to feelings of femininity. Rodgers and Ziegler (1968) studied couples before the start of use of oral contraceptives and for a four-year follow-up after contraceptive use had begun. A "continuous" group which continued use of contraceptives throughout the four years was differentiated from the "discontinuous" group that stopped the use of contraceptives abruptly during the four year period. It was found that "continuous" women were more independent and self-satisfied but more feminine (as measured by the Masculinity-Femininity Scale [MF] of the MMPI) than the "discontinuous" women. Further, the continuous group was characterized by marriages in which the wife as compared to her husband had more ascendant traits. This is puzzling because one would expect a woman who was more ascendant to be less traditionally feminine, in contradiction to the findings. Another study (Kutner and Duffy, 1970) also found that women who were less feminine,

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as measured by the MMPI, had more side effects from the use of oral contraceptives. However, the MF scale of the MMPI is a poor measure of even traditional female sex-role preference since it was validated on homosexual and non-homosexual men (Dahlstrom and Welsh, 1960).

Further, another study (Kapor-Stanulovic and Lynn, 1973) related femininity to the incidence of unpleasant side effects in the use of the pill, a factor that could relate to the discontinuation of its use, and found results that somewhat contradicted the Rodger and Ziegler (1968) and Kutner and Duffy (1970) studies. Two measures of femininity were obtained, one, the Franck Drawing Completion Test (Franck and Rosen, 1949) yields a measure of sex-role identification or "unconscious" femininity, and the second, the Femininity (Fe) scale of the California Psychological Inventory (Gough, 1957, 1966) which is interpreted as an index of sex-role preference or "conscious" femininity. Findings indicated that the group with the lowest incidence of side effects had high Franck and low Fe scores. For this group there is a strong feminine identity yet with a minimal stereotyped sex-role preference. Nevertheless, these women used the pill for only short periods of time, being inclined to try diverse methods of birth control. The group with the highest incidence of side effects was characterized by high Franck and high Fe scores. These women were interpreted as having a strong feminine identity and associated strong feminine sex-role preference. Women

with other combinations of the two scales fell in between in their degree of side effects.

Chilman (1973) also discussed how conflicts over a female's sense of adequacy can affect her use of contraceptives. She pointed out that a woman may avoid the use of birth control, in particular the pill and IUD because of a fear of being viewed a "perpetually contracepted" and thus a "loose woman." Other women may avoid using contraceptives because having a baby would prove that they were "whole" women.

Though Sorenson (1973) found that the most popular explanation for a person's lack of use of contraceptives was carelessness and forgetfulness, he similarly found that some girls fear that birth control preparation, in particular the pill, makes it seem as if they were planning to have sex. There is also evidence that birth control use is related to sex guilt. Schwartz (1973) reported that high sex guilt subjects retained less birth control information than low sex guilt subjects.

Previous research then has demonstrated that young women have numerous opportunities to become pregnant since they frequently do not use birth control. One factor that may account for this is that on some level these women would like to become pregnant. A number of investigators (e.g., Rodgers and Ziegler [1968], etc.) have suggested that feelings about femininity may play a role in determining birth control use. Extending these findings to

unmarried women could be significant in illustrating how feelings of femininity affects sexual behavior and the use of contraceptives, especially for a group for whom pregnancy and motherhood is so highly discouraged.

Premarital Sex and Intercourse Frequency

Again, the empirical research in this area has been limited and frequently has not concerned itself with psychological variables. Recent studies have shown that the number of coital experiences among unmarried college students has increased (Bell and Chaskes, 1970; Kaats and Davis, 1970).

In a study investigating the degree of sexual intimacy among college students (Moser and Cross, 1971) it was shown that for both men and women, high sex guilt subjects had less intimate sex contact and less permissive premarital sex standards than subjects with low sex guilt. Langston (1973) reported similar results. Kutner (1971) also related sex guilt to sex activity in married birth control users and found that high guilt women were less capable of all phases of the sexual sequence. Sex guilt was also negatively related with a Sex Adjustment Scale, actual intercourse frequency, and preferred intercourse frequency.

Two studies (Diamant, 1970; Freedman, 1965) also attempted to relate occurrence of premarital sexual relations to emotional maladjustment as measured by the MMPI, and found no such relationship to exist. The Diamant (1970)

study also found no relationship between maladjustment for females and the number of sexual partners or attitudes towards sexual permissiveness.

Fisher (1973), in an extensive study of female sexual responsiveness, related sexual frequency to measures that he termed narcissism. He found that frequency of sexual intercourse was positively related to amount of effort maintained in improving appearances in two out of four samples of women, averaging forty-two women per sample. Further, frequency was correlated with a high score on the Exhibition dimension of the Edwards Personal Preference Schedule in one sample. Unfortunately, no attempt was made to integrate these findings nor to explain the lack of results in the other samples. It should be noted also that all samples consisted of married women.

Research in this area has been minimal because sexual frequency is probably a function of too diverse interacting variables of a physiological, intrapsychic, and interpersonal nature. Yet, the importance of considering this variable in research on female sexuality is crucial given its relationship to both a woman's sexual interest and intensity and its relevance to the probability of pregnancy.

Interpersonal Relations and Premarital Sex Practices

Several researchers have examined various aspects of female sexuality as it relates to the degree of

affection and commitment to the male partner. Ehrmann (1959) found a direct relationship between frequency of premarital sexual behavior and going steady and being in love. Another study (Croake and James, 1972) dealing with sex attitudes demonstrated that students have a more permissive attitude toward all forms of sexual experience as the behavioral commitment between a couple increases. Snyder (1968) found that emotional stability among unwed mothers was directly related to the degree of commitment to the putative father. Furstenberg (1971) also found a relationship between the past use of birth control and the extent of involvement with the sexual partner among unwed pregnant girls. Contraception most likely occurred among couples who had a stable romantic relationship.

Brashere (1971), however, found that choice of the type of birth control was not related to the degree of involvement or affection in the relationship.

Contrary to the Ehrmann (1959) study, a more recent investigation (Bell and Chaskes, 1970) found that the degree of sexual intimacy was no longer influenced by the relationship involvement among college students in 1968. In 1958 being engaged often was a prerequisite for sexual intercourse while this was no longer the case in 1968. Interestingly, Kaats and Davis (1970) demonstrated that though behaviors may have changed, double standard attitudes are still widespread. They found that both males and females have a more negative attitude toward female

rather than male sexual activity, an attitude which is most pronounced as the activity becomes more intimate and when no affection is involved in the relationship.

Changing behaviors and attitudes over the years make generalizations difficult. However, whether or not the degree of involvement and affection in the male-female relationship proves to be related to the degree of sexual intimacy or the use of contraceptives, it is hard to imagine that the nature of the relationship does not have a significant effect on a woman's subjective feelings about the sexual experience as well as having a reciprocal effect on the motives behind the activity. Examining the interpersonal context of the premarital sexual activity could clarify the parameters of these effects.

Statement of the Problem

In the review of the literature, several issues have been raised that the present study examines. There has been conflict in the literature on illegitimacy as to whether premarital pregnancy and unwed motherhood is primarily "accidental" (e.g., Furstenberg, 1971) or whether it is more the result of specific motivational factors (e.g., Clothier, 1943). Past research that could have clarified the issue (Vincent, 1961) confused motivation for pregnancy/motherhood with motivation for sexual activity. The present study investigates this issue by using only women having sexual intercourse and by comparing women who

use adequate and effective birth control to those who use either no birth control or inadequate birth control. This is a step in isolating the woman who has a similar emotional makeup to the single pregnant woman, yet it avoids having the pregnancy experience influence the psychological measures. Since the frequency of sexual activity is also a factor in the likelihood of ensuing pregnancy, this variable is also examined.

If premarital pregnancy is specifically motivated, one would expect that those most likely to become premaritally pregnant (those using inadequate or no birth control) would have more fantasies of pregnancy and motherhood than otherwise expected. This study then examines fantasies of this type in a number of contexts.

If a wish for pregnancy and motherhood can be demonstrated by establishing a link between birth control use and fantasies of pregnancy and motherhood, it is important to identify personality variables that might account for this. A number of researchers have found the concept of femininity relevant to sex variables (Vincent, 1961; Rodgers and Ziegler, 1968; Kapor-Stanulovic and Lynn, 1972). It has been repeatedly proposed (Deutsch, 1945; Chilman, 1973) that conflict and insecurity about feelings of femininity could lead a woman to reassure herself of her feminine nature by proving her ability to conceive. There are multiple levels, however, of feminine identification

and only some may be related to birth control use and motivation for pregnancy and motherhood.

On a most basic or primary level, an early gender identification takes place that consists of the fundamental experience of one's self as either male or female (Lansky, 1960; McClelland and Watts, 1968). This identification takes place at an unconscious level and involves pride and confidence in one's basic "femaleness" or "maleness." The Franck Drawing Completion Test (Franck and Rosen, 1949) measures this identification relating it to male and female body imagery.

McClelland (1964) speaks of a secondary level of identification that involves a stylistic approach to the world that traditionally differs for men and women. The sex-role style is associated with assertiveness in men and interdependence (or yielding behavior) in women. Interdependence involves a concern with social interactions and sensitivity to the nature of relationships. McClelland points out that women are more ready to adjust, to balance and offset changes in others. Interdependence is not synonomous with dependence in that with the former there is concern with both the providing and receiving aspects of nurturant relationships. This level is considered secondary to gender identification, as it develops later and does not involve the more basic sense of being either male or female in body. McClelland and Watt (1968) though, still view this identification with either a male or female

style of behavior as occurring at primarily an unconscious level. The stylistic differences coincide best with traditional descriptions and expectations of appropriate male and female personality and behavior. A measure that taps sex-role style has been developed (McClelland and Watt, 1968).

On a more superficial level are the sex-typed attitudes and interests that differentiate men and women and that vary most greatly with particular cultural norms. This level indicates conscious choice in likes and interests and is therefore more content-oriented. Thus, it is less relevant in predicting personality functioning. A variety of measures have been used to assess this factor, including the Femininity Scale of the California Psychological Inventory (Gough, 1957, 1966) and the Masculinity-Femininity Scale of the Minnesota Multiphasic Psychological Inventory (Dahlstrom and Welsh, 1960). The Femininity Scale does not correlate with the Franck Drawing Completion Test (McCarthy, 1970) supporting the notion that they are independent factors.

More recently, the bi-polarity of the femininity-masculinity concept has been criticized (Constantinople, 1973). Bem (1974, 1975) has developed the notion of psychological androgyny, suggesting that adaptability of sex-role behavior may be more advantageous than stereotyped masculinity or femininity. Masculinity-femininity is treated as two independent dimensions.

The present study examines gender-identity and traditional sex-role style to assess how they may differentially affect sexual and contraceptive behaviors. Though a measure of sex-typed interests is included no predictions are offered as to how this level will predict sexual behavior.

Finally, since there have been conflicting studies on the importance of the degree of commitment of the sexual relationship on a variety of sex variables (Ehrmann, 1959; Bell and Chaskes, 1970) the present study attempts to clarify the issue by including females whose sexual practices are in the context of either a steady or temporary relationship.

To summarize, the present study examines the fantasy for pregnancy and motherhood and feelings of femininity in unmarried female subjects engaging in sexual intercourse and varying in two sex related activities: the use of adequate or inadequate birth control and the frequency of sexual coitus. Further, two levels of an interpersonal variable, temporary or steady relationship, is investigated. (See Table 1.) The measures of femininity included are measures of gender identity and sex-role style, since it is expected that subjects will differ on both these measures. The study thus has a 2 x 2 x 2 factorial design, in order to study differences in pregnancy and motherhood fantasy and two femininity measures, of two conditions of

Table 1

The Factorial Design of Birth Control Use
X Type of Relationship X Sex Frequency

Birth Control Use	Type of Relationship			
	Temporary		Steady	
	High Sex Frequency	Low Sex Frequency	High Sex Frequency	Low Sex Frequency
Adequate				
Inadequate				

birth control use, two frequencies of sexual activity and two degrees of relationship commitment.

The following hypotheses were tested:

1. Subjects using adequate birth control will score lower on measures of fantasy for pregnancy and motherhood than subjects using inadequate birth control.

Women who are taking the chance of becoming pregnant and ensuing motherhood, when birth control information and devices are readily available at the university health service, do so because they are motivated in that direction. It follows that they fantasize about being pregnant and having children if this is the goal that they feel (consciously or unconsciously) would be desirable and fulfilling.

2. Among subjects using inadequate birth control, those having a high sex frequency will score higher on fantasy measures of pregnancy and motherhood than those with low sex frequency.

Since women not using adequate birth control who have high intercourse frequency have a higher risk of pregnancy than those infrequently having intercourse, it follows that high sex frequency women would be more motivated for conception and/or motherhood and would therefore have more such fantasies. Subjects low in sex frequency are less likely to become pregnant and may be less motivated to conceive. For these women it is quite

possible that they expect that their infrequent sexual behavior will protect them from pregnancy. Among adequate birth control users however, since there is little pregnancy risk, there is no reason to hypothesize a difference in pregnancy and motherhood fantasy as a function of sex frequency.

3. Those in a steady relationship will score higher on measures of fantasy for pregnancy and motherhood than those in a temporary relationship.

It is reasoned here that women who are in a steady relationship would be more likely to be planning for future marriage and children, since this is the usual course of events in our society, and fantasies of these future events are part of the planning process. This would apply even to those using birth control adequately since these may well be temporary measures until circumstances are more appropriate (e.g., finishing school). On the other hand, women in a temporary relationship should find it more difficult to envision future marriage and children since they do not have a permanent love object present and therefore have fewer fantasies of pregnancy and motherhood.

4. Subjects using adequate birth control will be more feminine in their gender identity than subjects using inadequate birth control.

It is reasoned that females who are engaging in sexual intercourse without the adequate use of contraceptives and thus taking a strong risk vis à vis pregnancy,

will be doing so because of doubts about their femininity. It is assumed here that unconscious identification with a less feminine orientation will arouse anxieties in the woman which leads her to need confirmation of her essential "femaleness" through conception and motherhood.

5. Subjects using adequate birth control will be less feminine in their sex-role style than subjects using inadequate birth control.

Two lines of reasoning lead to this prediction. First, women who are stylistically feminine, or inter-dependent, would emphasize feminine attributes and focus more on traditionally feminine concerns of the home environment. This type of woman's identity is closely tied to her perceptions of a future home and motherhood (Douvan and Adelson, 1966). Thus, she is more likely to place herself in a position whereby she may actualize some of these dreams, by not using adequate birth control. Though it can also be argued that the stylistically highly feminine woman would want a child only in the confines of marriage, since this is part of the traditional pattern and so should take adequate birth control precautions, this woman may unconsciously hope that pregnancy will also lead to marriage. Further, it is not suggested that the process involves an active decision to become pregnant but rather results from an identification with and concern with child-bearing. Second, obtaining contraceptives (such as the pill) or insisting on the partner's use of a condom

requires a fair degree of assertion. Women highly feminine in their behavioral style would therefore be less able to assert themselves to effectively obtain and use contraceptives.

6. Subjects who are in a temporary relationship will be less feminine in their sex-role style than those in a steady relationship.

Some researchers (Ehrmann, 1959) have found that premarital intercourse is most likely to occur in the context of a steady relationship. Though there is evidence that this has changed in recent years (Bell and Chaskes, 1970) studies still show less acceptance of premarital intercourse in relationships characterized by less commitment and affection (Kaats and Davis, 1970; Croake and James, 1972). This is especially true in male and female attitudes toward woman's sexual activity. Breaking these codes of behavior (by being in a temporary relationship) requires a more assertive, independently-minded woman. Further, initiating short-term relationships necessitates the ability to be assertive in meeting new people. Since only the sex-role style level of femininity taps the assertive-interdependent dimension of behavior, only a difference on this level of femininity is predicted.

7. Among subjects using inadequate birth control, those having low intercourse frequency will be more feminine in their gender identity than subjects with high intercourse frequency.

The rationale for this hypothesis, as in hypothesis 4, assumes that insecurity about feminine identity will motivate females to take a chance of conception. However, it is clear that subjects low in sex frequency are less likely to become pregnant and may be less motivated to conceive. Since at this point there is no reason to assume that frequency of sex activity in general is related to femininity, no sex frequency main effect hypothesis is made.

CHAPTER II

METHOD

Subjects

A total of 468 female undergraduate students in psychology classes filled out questionnaire material. Four subjects were immediately eliminated from this pool of data, since they were divorced and three subjects were eliminated who omitted information as to whether they had ever had intercourse. Subjects who indicated that they had had sexual intercourse at least once during the prior two months were evaluated on the criteria set for the independent variables. Nineteen of these subjects were eliminated because they did not respond to a number of measures, were accidentally not given all the measures to complete, or gave incomplete, confusing, or contradictory responses to birth control questions. A total of 129 female single undergraduates met the criteria set for the study and comprised the final sample used in the analyses. (See Appendix A for the distribution of subjects on all variables).

Procedure

Subjects were recruited from psychology classes, where they could sign up for a study entitled "dating patterns in college women" in exchange for class credits. Only single women under age 30 were asked to participate. Subjects were administered the measures in large groups. They were read the following instructions:

> This is a study of dating patterns in college women. In a few minutes, I will give you a booklet with several parts to it. For example, you will be asked to write some stories, draw some pictures, and answer some questions of a personal nature. I would like to assure you of the complete confidentiality of your responses. As a matter of fact, I do not want anyone to put their name anywhere in the booklet, this way they will remain anonymous. If you feel uncomfortable participating, feel free to return the booklet to me. If you do participate, please do not leave out any parts or answers and complete the booklet in the order presented. Complete instructions are contained in the booklet but you can raise your hand if you have questions at any time. Before I give you the booklets, I have some consent forms that you need to sign giving your consent for participating in the study. When I hand them out please read them carefully, sign on the bottom and pass them up to the front. Then I will give you the booklets for the experiment. Any questions?

Consent forms were distributed, completed, and collected. All subjects agreed to participate in the study. A booklet containing all measures was then distributed. Subjects returned the booklets as they completed them.

Responses of those women who indicated that they had engaged in sexual intercourse at least once in the last two months were evaluated for placement in the eight cells of the design on the following criteria:

1. Birth Control Use. (a) Inadequate--Subjects used either inadequate methods of birth control (i.e., coitus interruptus or rhythm) or used effective methods but less than 90% of the time, or used no birth control techniques at all. (b) Adequate--Subjects used effective methods of birth control (oral contraceptives, condom, contraceptive foam) singularly or in combination, 100% of the time.

2. Relationship. (a) Steady--Subjects indicated they were engaged, pinned, living with boyfriend, or dating only one man in a "serious" relationship for at least three months time. Subjects who indicated any of the above but who were also dating more than one man were not included here. (b) Temporary--Subjects indicated that they dated more than one man, or that they were not dating. Subjects who were in a "serious" relationship of less than three months duration were also included.

3. Sexual Frequency. (a) High--Subjects who had sexual intercourse on the average of once a week or more were included in this group. (b) Low--Subjects who had sexual intercourse once a month or less were assigned to this group. Women who had intercourse every other week were not used in the main analyses.

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Measures

The Franck Drawing Completion Test (Franck and Rosen, 1949)

A modified version of this test consisting of 11 simple line drawings was used (see Strodbeck, Bezdek, Goldhammer, 1970). Subjects are asked to complete the drawings however they wish. Franck and Rosen (1949) and Lansky (1960) have interpreted the test as a measure of unconscious aspects of sex role identity, related to male and female body imagery.

The criteria used to score the drawings followed the guide suggested by Bezdek and Madsen (1970). Abstract or non-representational completions were scored according to four criteria: internal, elaboration (feminine), roundness (feminine), angularity (masculine), and closure (masculine). Drawings with recognizable content were scored according to three general principles: active versus passive, male role versus female role, and symbolic versus realistic.

Three coders studied the guide provided by Bezdek and Madsen and each practiced coding on the sample of 20 protocols within the guide until each reached 90% agreement with the guide. Two coders then independently rated two additional samples of 20 protocols each and reached 91% and 92% agreement with each other. Two coders then rated independently all the protocols for the study. Reliability on each of the 11 drawings ranged from 82% to 96% agreement with a total (across all pictures) percent agreement of 91.

The third coder rated those drawings where there was disagreement on coding.

A number of studies (McCarthy et al., 1970; Blane; and Yamamoto, 1970) have shown that this measure differentiates men from women, indicating concurrent validity. Alcoholic women were also shown to be more masculine than controls on this measure (Wilsnack, 1973).

Sex Role Style

This measure consists of nine true-false items which are related to the assertiveness-interdependence dimension of personal style (from McClelland and Watt, 1968). High scores indicate femininity. (See Appendix B.)

Though this scale has had only limited use, Wilsnack (1973) found that alcoholic women were more assertive than a control group of non-alcoholic women, demonstrating some support for the concurrent validity of the scale.

Fantasy for Pregnancy and Motherhood

(a) Five TAT-type pictures were selected that would elicit themes related to motherhood, pregnancy, relationships and sex. (See Appendix C for pictures and description.) Subjects were asked to write stories as imaginatively as they wished. However, each story was followed by a series of questions that could be used as a guideline for the stories.

All stories were coded for presence and absence of motherhood and pregnancy thema separately. Pregnancy thema was defined as concern with the pregnancy experience, mention of the pregnancy state, awareness of the fetal movements before birth. Motherhood thema was scored present when there was concern about the parenthood state, focus on the child or parenting relationship after the birth of a child.

Two coders scored all stories. They achieved 95% agreement on presence of pregnancy thema and 97% on presence plus absence. The coders obtained 98% agreement on presence of motherhood thema and 99% on presence plus absence.

Since only stories 1, 3, and 4 succeeded in eliciting thema, scores were derived by assigning a score of +1 for presence of thema on each of these stories and summing across stories. Separate scores were derived for motherhood thema (MT) and pregnancy thema (PT).

(b) Fantasy of children--Ss were asked, "Do you ever daydream about having children? If so, please describe this daydream." Responses were sorted into affirmative and negative responses. (See Appendix D for sample protocols).

(c) Abortion fantasy--Ss were asked, "If you found out next month that you were pregnant, how would you feel? What plans would you make?" Responses were sorted into

those that specified they would have an abortion versus those that chose other alternatives or were undecided. (See Appendix D for sample protocols.)

The Femininity (Fe) Scale of the California Psychological Inventory (Gough, 1957, 1966)

This measure consists of 38 true-false items that have differentiated men from women. This dimension focuses on attitudes and interests and is considered a conscious measure of femininity.

The Fe scale has been widely used and validated in American and cross-cultural samples (Gough, 1966). It has consistently differentiated men from women. The Fe scores correlated with ratings of femininity and masculinity made by fraternity and sorority members. Though the Fe failed to correlate with the Franck Drawing Completion Test, there was a significant correlation between the Fe Scale and the MMPI MF Scale in a college sample (McCarthy et al., 1970).

Dating Patterns Inventory

This questionnaire contains items on demographic information, sexual history, contraceptive practices, sex frequency, and interpersonal relationships. Responses were used for selection and placement in the study. (See Appendix E.)

CHAPTER III

RESULTS

The thrust of the argument leading to this investigation has been that pregnancy is a motivated state. The primary behavioral correlate indicative of this motivation is the inadequate use of readily available birth control techniques for the sexually active female. In addition her sexual coital frequency will influence the likelihood of ensuing pregnancy. The link between birth control use and motivation for pregnancy and motherhood can be demonstrated by testing the fantasy for pregnancy/motherhood in sexually active women. This has been assessed by two TAT measures, a measure of daydreaming about having children, and a measure of anticipation of abortion if pregnant.

The degree of permanence of the sexual relationship is also expected to be related to the motivation for parenthood. Also of interest are the personality factors that account for differences in fantasy levels of pregnancy/motherhood and contraceptive use. Femininity, considered as a primary gender identification (the Franck Drawing

Completion Test) and as a behavioral style of interdependence rather than assertiveness (Sex-Role Style) are the personality dimensions to be investigated.

Main Analyses

The main analyses consisted of a 2 x 2 x 2 multivariate analyses of variance for unequal cell frequencies. Since the distribution in the cells is presumed to be indicative of the distribution in the population, a least squares solution was used (Winer, 1962, p. 292). The following dependent variables were included: (1) The Franck Drawing Completion Test, (2) Sex-Role Style, (3) Motherhood Thema Score, and (4) Pregnancy Thema Score. Two of the measures, daydreaming of children and abortion anticipation were not included in the multivariate analyses because they required non-parametric procedures. Other statistical tests were also performed to clarify the results.

For the multivariate analyses, the alpha level for significance was set at $p<.10$. At this level none of the main effect multivariate tests reached significance. In the multivariate tests for interaction, the Birth Control X Relationship interaction proved significant, $F(4,118)= 2.19$, $p<.07$. In the concomitant univariate test only Sex-Role Style demonstrated a significant trend, $F(1,121)= 4.78$, $p<.03$. (See Appendix F for complete analysis of variance tables.)

The Relationship X Sex Frequency interaction multivariate test also reached significance, $F(4,118)=2.02$, $p<.09$. In the associated univariate analyses of this interaction, only the Franck Drawing Completion Test univariate F test was significant, $F(1,121)=6.32$, $p<.01$.

To trace these interactions, simple main effects were calculated for the significant interactions on Sex Role Style and the Franck Test. Table 2 presents the analyses for Sex-Role Style. A comparison of adequate versus inadequate birth control users in temporary relationships, approached significance ($F=3.44$, $p<.10$). An examination of means (See Figure 1) indicates that in temporary relationships, inadequate birth control users are more feminine (more interdependent and less assertive) than those who use birth control adequately. However, for women in a steady relationship, no differences were found as a function of birth control use. This finding then provides only partial support for Hypothesis 6 which predicted that adequate birth control users would be less feminine in their sex-role style than those using inadequate birth control.

Birth control users with temporary versus steady relationships were also compared on the Sex-Role Style measure and the comparison proved significant, ($F=8,20$, $p<.01$). Looking at Figure 1, one can see that among adequate birth control users, those in a temporary relationship are less feminine (more assertive) than those

Table 2

Analysis of Variance for Simple Effects of Birth Control Use and Relationship for Sex-Role Style

Source	df	F
Adequate--Inadequate Birth Control Use in Temporary Relationship	1	2.80*
Adequate--Inadequate Birth Control Use in Steady Relationship	1	1.90
Steady--Temporary Relationship with Adequate Birth Control Use	1	8.20**
Steady--Temporary Relationship with Inadequate Birth Control Use	1	0.03

*p<.10

**p<.01

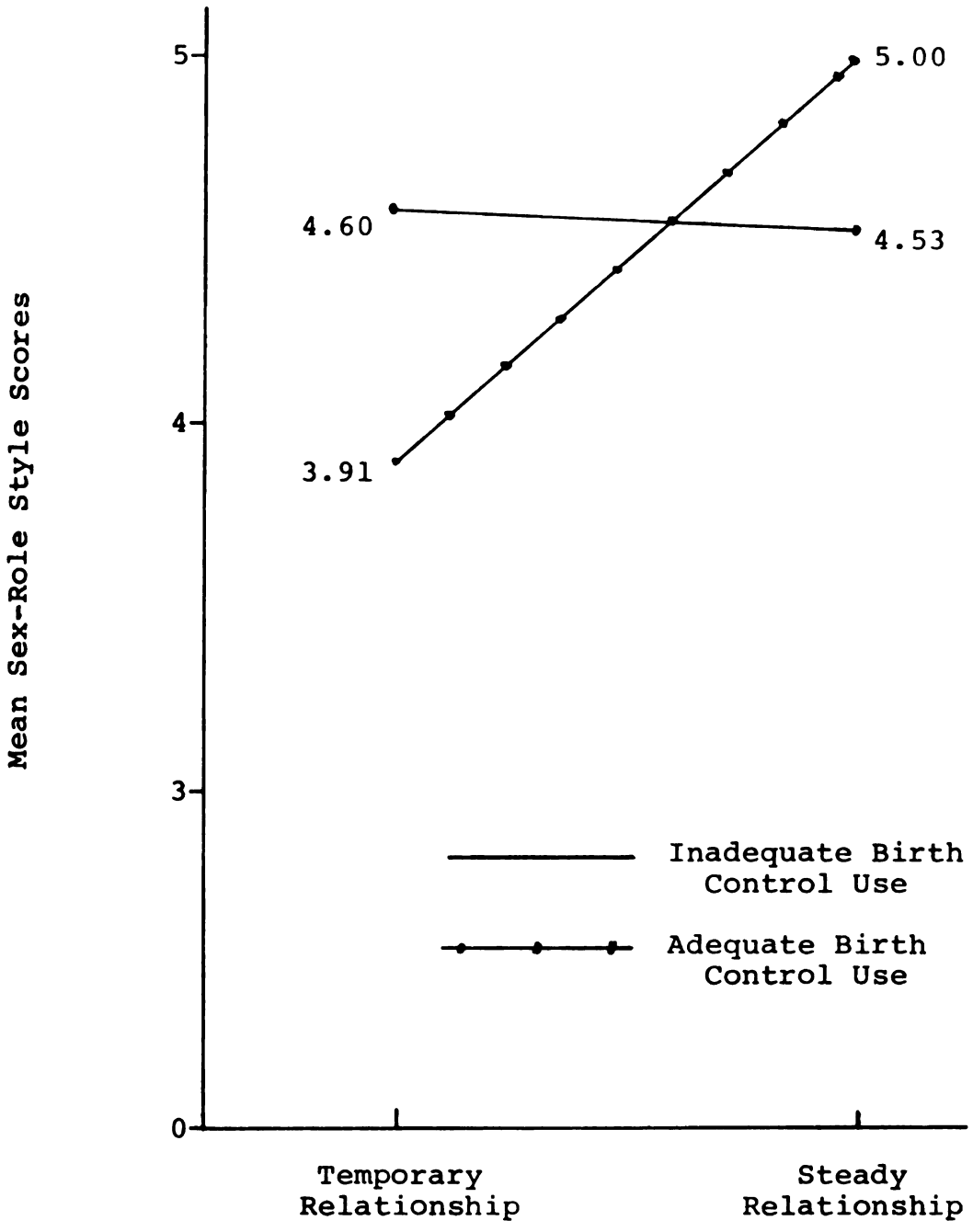

Figure 1. Birth Control Use X Type of Relationship Interaction for Mean Scores on Sex-Role Style.

in a steady relationship. No such relationship is present among inadequate birth control users. Among adequate birth control users then there is support for hypothesis 7 which predicted that women who are in a temporary relationship are less feminine in their sex-role style than those in a steady relationship. Figure 1 indicates that the significant interaction is largely attributed to the adequate birth control users.

Table 3 shows the simple main effect comparisons of the Franck Drawing Completion Test. An examination of means in Figure 2 indicates the following: (1) Among subjects in a temporary relationship, high sex frequency subjects were more feminine in their gender identification than those low in sex frequency ($F=5.92$, $p<.05$). (2) For subjects in the steady relationship condition there is no difference as a function of sex frequency. (3) Among high sex frequency subjects, women in temporary relationships are more feminine in their gender identification than women in steady relationships ($F=4.34$, $p<.05$). (4) For subjects having low sex frequency, there are no differences as a function of the type of relationship.

Figure 2 serves to illustrate and clarify the Relationship X Sex Frequency interaction for the Franck Test. Women with high sex frequency in temporary relationships have the highest Franck Test Scores, or the most feminine gender identification. The main contribution appears to come from differences in the high sex frequency

Table 3

Analysis of Variance for Simple Effects of Sex Frequency and Relationship for the Franck Drawing Completion Test

Source	df	F
High--Low Sex Frequency in Temporary Relationship	1	5.92*
High--Low Sex Frequency in Steady Relationship	1	1.38
Steady--Temporary Relationship with High Sex Frequency	1	4.34*
Steady--Temporary Relationship with Low Sex Frequency	1	2.61

*$p < .05$

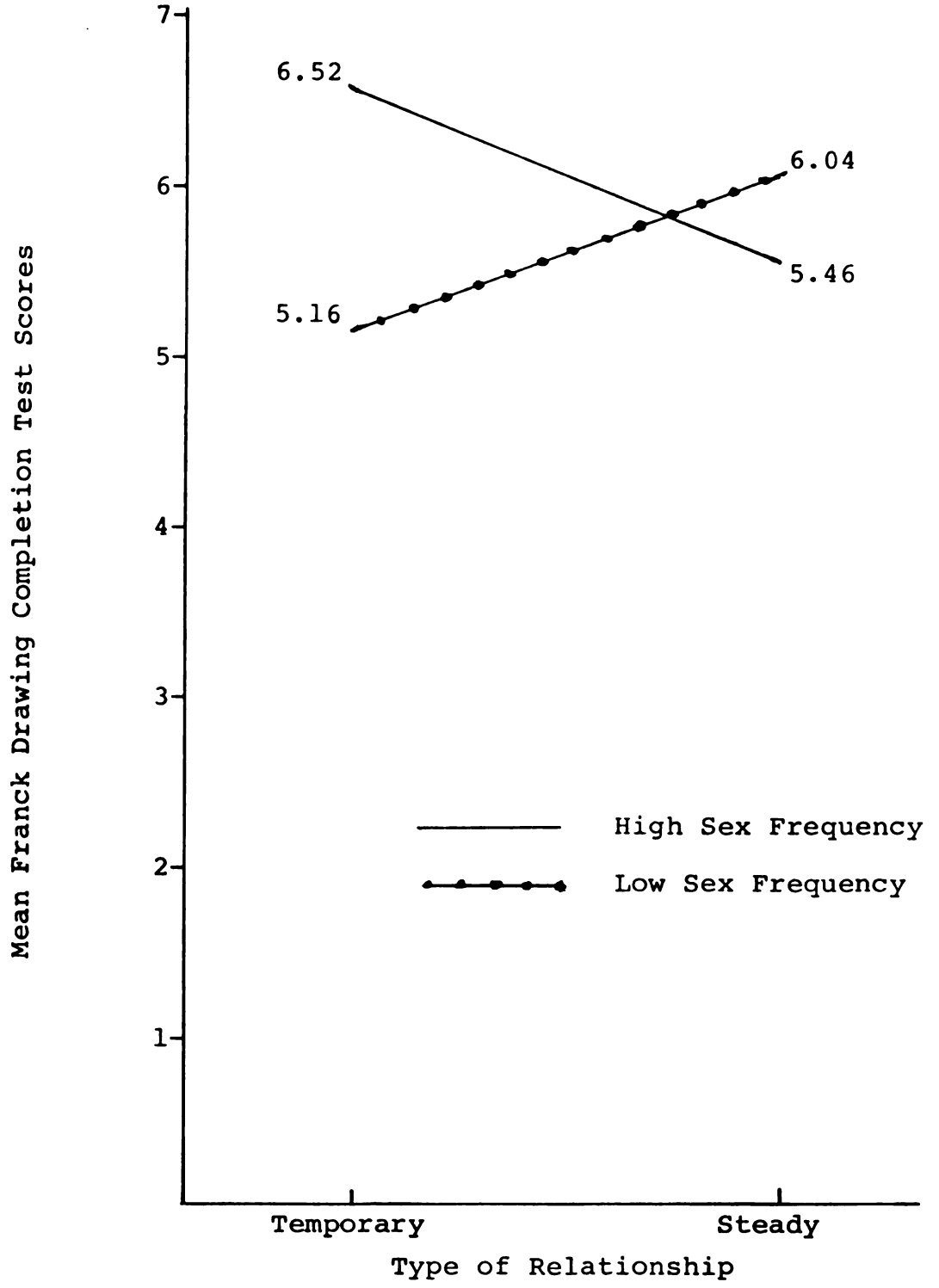

Figure 2. Type of Relationship X Sex Frequency Interaction for Mean Scores on the Franck Drawing Completion Test.

group, although Figure 2 suggests that the interaction is not solely attributable to those subjects.

Only Hypotheses 4 and 7 dealt with the Franck Drawing Completion Test. Since no significant differences were found for main effects or interactions that concerned birth control use on this measure, no support is indicated for Hypothesis 4, which predicted that subjects using adequate birth control would be more feminine on a measure of gender identification than subjects using inadequate control. Hypothesis 7 also predicted that among birth control users subjects with low sex frequency would be more feminine in their gender identity than those with high sex frequency. No support was found for this hypothesis. Further, insofar as low sex frequency subjects were lower on the Franck Test than high sex frequency subjects, in the temporary relationship condition, (which includes inadequate birth control users) the finding is counter to that predicted.

Additional Analyses

Crucial to this investigation is the connection between motivation for pregnancy and motherhood and the behavioral act of birth control use. Concern and fantasy about pregnancy and motherhood is a measure of this tie. Hypothesis 1 tested this relationship by predicting that adequate birth control users would score lower on a measure for pregnancy and motherhood than those using birth control

inadequately. Further, an interaction with sex frequency was predicted in Hypothesis 2. Since fantasy for pregnancy and motherhood may closely tie in with the nature of the sexual relationship, Hypothesis 3 also predicted a higher score on pregnancy and motherhood fantasy measures for those in a steady relationship.

The Pregnancy Thema Score and the Motherhood Thema Score derived from the TAT-type stories failed to support these hypotheses as indicated by the multivariate analyses. One difficulty with these scores, in particular with the Motherhood Thema Score was that the stimulus pull of the pictures was so strong that they elicited responses from almost all subjects.

Two additional measures were available, however, that yielded indicators of fantasy for motherhood and pregnancy. Subjects had been asked: "Do you ever daydream about having children? If so, please describe this daydream." Answers were sorted into affirmative (with subsequent descriptions) and negative responses. A chi-square analysis for replicate four-fold tables (Winer, 1962) revealed that adequate birth control users have less often had daydreams about having children than did inadequate birth control users ($\chi^2=5.05$, $p<.02$, two-tailed test). This is supportive of the prediction made in Hypothesis 1. The main effect chi square analysis for temporary versus steady relationship yielded a trend

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toward significance (χ^2=2.79, p<.10). This provides only weak support for Hypothesis 2 which had predicted this relationship.

A second measure was derived from responses to the question: "If you found out next month that you were pregnant how would you feel? What plans would you make?" Responses were sorted into those that stated they would get an abortion versus those that did not state they would get an abortion. Subjects in the latter group included responses of adoption, single parenthood, marriage, or uncertainty as to their future behavior. This measure then is an index of the fantasy of pregnancy termination.

A chi-square analysis for replicate four-fold tables yielded no main effect results but the interaction between birth control use and relationship proved significant (χ^2=4.66, p<.05). Simple main effect chi-squares therefore were computed. Among subjects in a temporary relationship, inadequate birth control users anticipated abortion significantly less often than did adequate birth control users (χ^2=6.62, p<.02). In the steady relationship condition, birth control use did not distinguish fantasy for abortion. This lends some further support for Hypothesis 1, at least among subjects in a temporary relationship.

A chi-square analysis between temporary and steady relationship women among adequate birth control users, also proved significant (χ^2=6.67, p<.01) offering

some support for Hypothesis 2. However, among inadequate birth control users, the type of relationship did not distinguish between subjects on the anticipation of abortion question. These findings provide evidence for the link between birth control use and motivation for pregnancy and motherhood.

In the multivariate analysis, only the measure of Sex-Role Style was found to be related to birth control use. The Fe scale of the CPI also yields a measure of femininity but focuses more on interests and attitudes that distinguish females from males, rather than the behavioral style component. Since scores on the Fe correlated with scores on the Sex-Role Style measure for this sample ($r=.34$, $p<.001$), an additional univariate analysis was computed with this variable to determine if similar results would be supported with this measure. No significant main effects or interactions were found however (most $F<1$).

Since age might also be a factor related to use of birth control, a univariate analysis was also computed for this dependent variable. This yielded a main effect significant relationship for birth control use, $F(1,121)= 9.55$, $p<.0025$). An examination of means reveals that users of adequate birth control are older ($\bar{X}=19.09$) than inadequate birth control users ($\bar{X}=18.4$). No other main effect or interaction relationships proved significant.

Relationship Between
Dependent Variables

To clarify the results obtained, correlations among the dependent variables were computed. (See Table 4.) Among the measures where significant results were found, Sex-Role Style and daydreaming of having children were significantly correlated suggesting that the more traditionally feminine woman more frequently has had fantasies about motherhood. Daydreaming about having children and anticipating abortion were also negatively correlated as expected. Women who have had fantasies of children are less likely to anticipate that they would terminate a pregnancy. It should be noted that these relationships are still of a low order, suggesting the basic independence of all the measures used.

It is also important to note that the relationship between daydreaming of having children and age fails to reach significance. Both these measures have been shown to predict birth control use but these two factors apparently function independently of each other.

Table 4

Correlations of Dependent Variables (N=129)

	1	2	3	4	5	6	7
1. Franck Drawing Completion Test							
2. Sex-Role Style	03						
3. Motherhood Thema Score	-16	17					
4. Pregnancy Thema Score	-07	-17	07				
5. Daydream of Children	-02	22*	05	-10			
6. Anticipation of Abortion	-06	-08	06	-04	21*		
7. Age	07	-13	-34**	-15	-14	17	
8. Fe Scale	02	34**	12	-16	38**	-30**	-26**

Note--for convenience, decimal points have been omitted from all correlations.

*p<.02

**p<.01

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CHAPTER IV

DISCUSSION

The present data confirms the previous research findings (Kantner and Zelnik, 1973; Sorenson, 1973) that large numbers of single women are taking a chance of becoming pregnant by having intercourse without the benefit of adequate birth control techniques. A primary purpose of this study has been to investigate whether premarital pregnancy is specifically motivated. The results offer some support that there is a link between birth control use and motivation for pregnancy and motherhood, but the issue appears more complicated than originally proposed. In order to conceptualize the multiple factors affecting birth control use and sexual functioning, I have developed a model that illustrates the complex chain of inter-relationships (see Figure 3). The model serves to clarify the present results as well as offering a broader perspective of the levels involved in pregnancy motivation, that lays the groundwork for future research.

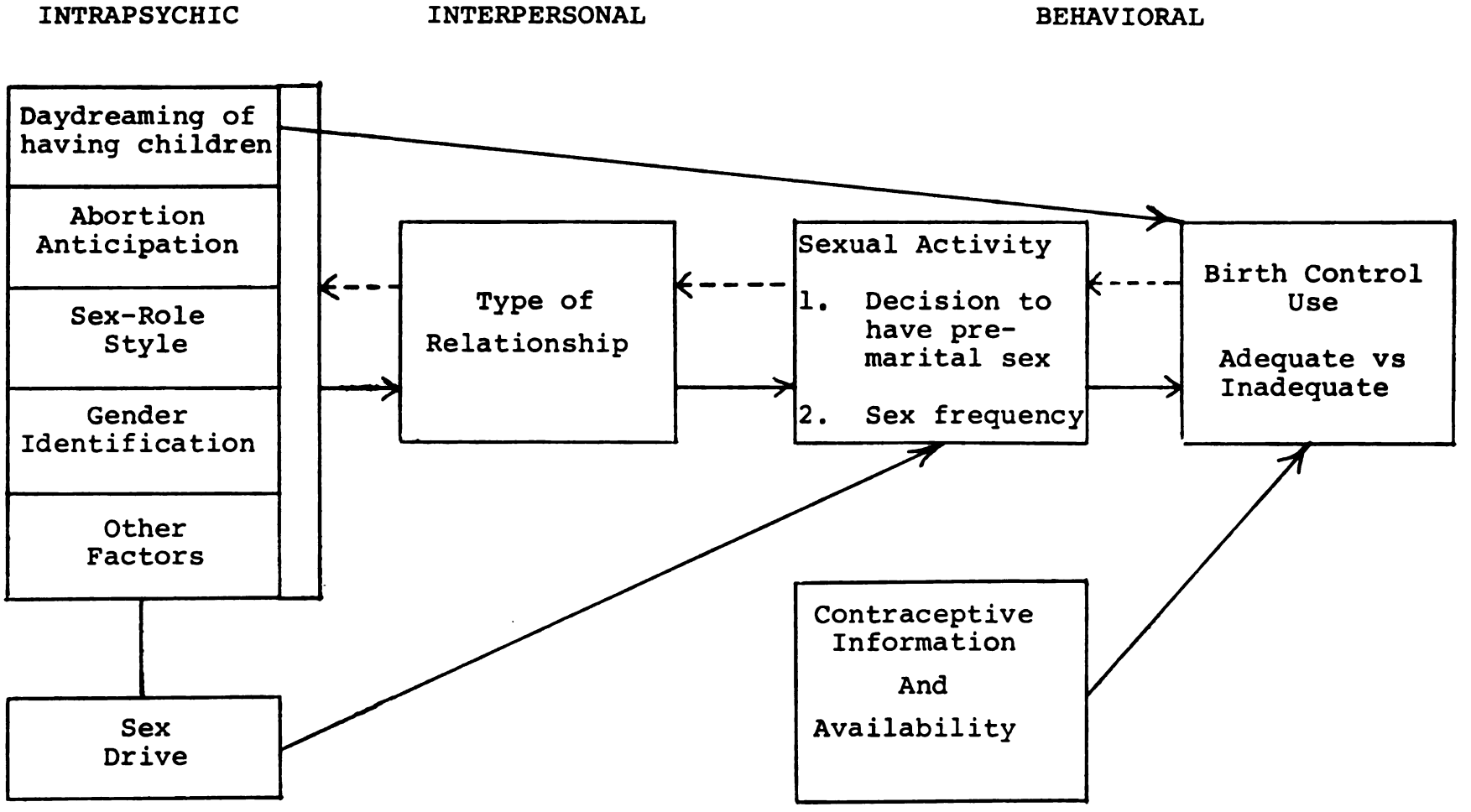

Figure 3. Model of the Interrelationships of Intrapsychic, Interpersonal, and Behavioral Factors Leading to Premarital Pregnancy.

Factors leading to pregnancy and motherhood occur on three levels: intrapsychic, interpersonal, and behavioral. Crucial to demonstrating that premarital pregnancy is motivated is the establishment of the link between these levels, in particular between the intrapsychic factors and birth control use. The present data provide support for this link by demonstrating a significant relationship between daydreaming about children and birth control. Women who fantasize about having children and who imagine themselves in the role of mothers, are more likely to avoid providing themselves with adequate contraceptives, thus increasing the likelihood that pregnancy and motherhood will ensue. In a sense they are providing themselves with the opportunities for their fantasies to be translated into reality.

There is no evidence, however, that the "decision" not to use adequate birth control is a carefully thought out or even a conscious plan to become pregnant and to be a mother. On the contrary, very few of those who use inadequate birth control reported being consciously happy about the prospect of being pregnant next month. The inadequate use of birth control then involves a good deal of ambivalence.

On the other hand the woman daydreams about being a mother and having children, anticipating this as a rewarding and fulfilling experience. (The daydreams were almost exclusively positive.) On the other hand, she

realizes the profound difficulties pregnancy would create (a sense of shame, conflict with parents, dropping out of school) and thus in part dreads the immediate fulfillment of her dreams. The data provide additional support that there is a conflict between wanting to be pregnant and becoming a mother and fearing the consequences. Even among the inadequate users of birth control only a small percentage (20%) made no attempt to use any birth control techniques. Thus the vast majority used birth control but still took chances of becoming pregnant.

The model illustrates that the relationship between daydreaming about having children and birth control use is a direct one, insofar as the relationship is a main effect rather than an interaction with other variables. However, it does appear that daydreaming about children and the type of sexual relationship is also related but the relationship in this case is weaker. Though it is plausible that the woman who has daydreams about children would be more likely to seek out a steady relationship, perhaps in the hope that this would lead to marriage, the direction of causality may be reversed (as indicated by the dotted arrows in Figure 3). Women in steady relationships are more likely to have plans and fantasies for future marriage than women in temporary relationships, and daydreams about children form one aspect of the planning process.

The finding that women in a temporary relationship, who use inadequate birth control would be less likely to

anticipate abortion as their behavior during pregnancy, than women who use adequate birth control, indicates further support that the pregnancy state is more desirable for the former group. The woman who uses adequate birth control (in a temporary relationship) is clear and consistent in her intentions: she does not want to be pregnant, she practices birth control faithfully, and anticipates that she would have an abortion if she became pregnant anyway. In contrast, the woman who is motivated to become pregnant, does not use adequate birth control (at least in temporary sexual relationships) and is more likely to become pregnant, yet is not as likely to anticipate that she would want to terminate the pregnancy (though what her reactions might be, faced with this reality is open to speculation). Kanter and Zelnik (1973) similarly found that it is the girl who used contraceptives at her last intercourse who is more likely to choose abortion as the best option for an unwed pregnant girl, than the girl who did not use contraceptives at her last intercourse.

The type of sexual relationship that the woman is involved in clearly has a moderating influence on the fantasy of pregnancy termination, or abortion anticipation. Women who use adequate birth control in a steady relationship anticipate abortion no more often than do inadequate birth control users in a steady relationship, but significantly less often than birth control users in temporary relationships. Even though adequate birth control users

having a steady relationship do not want to become pregnant, they nevertheless have the option of marriage available to them that those in temporary relationships do not. The choice of abortion as an option to terminating an unwanted pregnancy is complicated and emotionally ladened. The woman who does not want to be pregnant but has alternative options available to her (e.g., marriage) will be less sure of her future behavior than the woman in a temporary relationship who has fewer options. Here the interpersonal factors influence the intrapsychic level, as well as the intrapsychic and interpersonal levels interacting to produce behavioral variation in birth control use (illustrated by the two-way arrows in Figure 3).

Up to this point, the discussion has considered motivation for pregnancy and motherhood as somewhat interchangeable concerns. However, interests in becoming pregnant, enjoying the pregnancy state, and proving one's ability to conceive, clearly differ from interest and fantasies about being a mother, caring for and being needed by a child. The relationship between birth control use and daydreaming about having children provides support only for the notion that birth control use is related to motivation for motherhood but does not address itself directly to motivation for pregnancy. The relationship between anticipation of abortion and birth control use among women in temporary relationships points to a link between birth control use and motivation for pregnancy; the inadequate

birth control user in a temporary relationship is less likely to want to terminate the pregnancy experience. Insofar as continuing the pregnancy provides the opportunity for becoming a mother, this finding also demonstrates support for a relationship between birth control use and motivation for motherhood among women in temporary relationships. This latter conclusion is offered most cautiously, however, since the responses of those who were not certain they would choose abortion included uncertainty and adoption as well as marriage and single parenthood.

It is not at all clear whether motivation for pregnancy and motherhood are identical or whether the dynamics involved in each of these motivations differ substantially. Similarly, the present study does not clarify whether it is motivation for pregnancy or motherhood that is more crucial in determining birth control practices, though there are indicators that interpersonal factors may moderate the influence of pregnancy motivation.

The fantasy measures derived from the TAT-type pictures do not clarify this issue as originally anticipated, since neither the Pregnancy Thema Score nor the Motherhood Thema Score is related to the independent variables. The results using these measures then fail to support the hypotheses that birth control use and relationship are related to fantasy for pregnancy and motherhood. Though the lack of significant results might indicate that the relationships predicted do not exist, the significant

findings that adequate birth control users have less often had daydreams about having children, and the trend for women in a temporary relationship to have less such daydreams than women in a steady relationship, suggests that the TAT measure may not have adequately assessed existing differences in fantasy levels of pregnancy and motherhood.

Though five pictures were originally presented to the subjects, only three pictures elicited substantial pregnancy and motherhood imagery--all pictures with either a pregnant woman or woman and infant. The picture of a nude couple elicited only seven instances of motherhood theme and five instances of pregnancy theme. The picture of a woman looking in a mirror elicited only two of motherhood theme and no instances of pregnancy theme. The three pictures that did elicit substantial imagery, had such strong stimulus pulls that large numbers of women produced scorable imagery, including those in the adequate birth control condition. This was particularly apparent with motherhood thema where the number of scorable responses were 111, 120, and 126 (of a N=129) on each of three stories.

It is quite possible then that though not all women have pregnancy and motherhood as ongoing concerns, they certainly respond to pictures that overly depict these themes by producing comparable stories. The relationship of thematic apperception test imagery to ongoing daydreaming patterns has not been systematically

investigated (Singer, 1966). The essentially zero correlation between Pregnancy Thema Score and the Motherhood Thema Score with the daydreaming of having children measure indicates that these instruments are not tapping the same factors.

A second purpose of the study has been to investigate how femininity issues, or feelings of "womanliness" might be related to birth control use. As the model proposes, the personality factors of sex-role style and gender identification influence birth control use through interpersonal factors and sexual activity. For sex-role style the results of the present study indicate that among women in a temporary relationship there is a trend for those who use adequate birth control to be less traditionally feminine, or more assertive, than those who use inadequate birth control. The woman who uses birth control in a temporary relationship is also significantly less feminine, or more assertive, than the birth control user in a steady relationship. These findings are in the direction hypothesized, though simple main effects rather than interactions were predicted.

A number of researchers have proposed that a core component of traditional feminine sex-role identity is the goal of becoming a wife and mother (Douvan and Adelson, 1966). A behavioral style of interdependence develops in part from the emphasis on family and home relationships that is more typical in female upbringing. Thus the

woman who is more traditionally feminine, less assertive, and more interdependent is more likely to connect sexuality and her interpersonal relationships with reproduction and becoming a mother and therefore places herself in a position whereby these expectations might be met, i.e., she uses inadequate birth control while having sexual relationships. The data do provide support, albeit weak, that femininity as measured by Sex-Role Style is related in fact to day-dreaming about having children ($r=.18$, $p<.05$, for the full sample of sexually active subjects, including mid-sex frequency subjects, $N=157$).

However, the more crucial element here may be that sex-role style influences the behavioral components leading to birth control use: obtaining contraceptive information, making medical appointments, buying and using devices, insisting on male use of condoms, etc. These behaviors all involve a high degree of assertion, unavailable to the more traditionally feminine woman. Hence a more feminine, less assertive sex-role style may not just be related to pregnancy/motherhood motivation per se but related rather to the skills and qualities associated with the actual acquisition and use of adequate birth control.

Following this reasoning, the use of particular birth control techniques should also be related to the interdependence-assertion dimension. Even among the adequate birth control users those who sometimes have relied on their partner's use of contraceptives (e.g.,

condom) should be more interdependent and less assertive than the woman who has taken sole responsibility for prevention of pregnancy. The data provide support for this contention. Though few women relied exclusively on the partner's use of birth control, those who had occasionally relied on their partner (during the previous six months) were significantly less assertive than those who had used the pill or intra-uterine device exclusively ($\chi^2=5.76$, $p<.02$, two-tailed test). Thus, the behavioral style of the sexually active woman may lead to differences in the choice of birth control technique which involve adequate or inadequate methods.

This line of thought must be accepted with caution however, since the difference between adequate and inadequate birth control users is only a trend among temporary relationship women. The interpersonal factors again moderate the influence of the intrapsychic factors on birth control use. It is important to note though that the interaction observed between birth control use and relationship on the Sex-Role Style measure is similar to that found on the anticipation of abortion measure, though these measures are independent of each other ($r=.08$). The adequate birth control users in a steady relationship appears to be more similar to the inadequate user of birth control (regardless of relationship) than to the adequate birth control user in a temporary relationship.

One possible explanation for these findings is that the woman who uses adequate birth control and has intercourse only within the context of a steady relationship, conforms more to the typical and acceptable mode of behavior, having intercourse only within a committed relationship and so is also less apt to break society's code against premarital pregnancy. She is following the traditional pattern of feminine identity by having an early exclusive relationship with a man. It is important to note that these women are tied to one man at an early age ($\bar{X}$=18.9). Thus her sex-role style is to be more interdependent than the woman in a temporary relationship who uses adequate birth control. Similarly, the woman having temporary relationships needs to assert herself to meet new partners.

The interaction with the type of relationship, however, also suggests that the sexual relationship itself may change personality. When a woman develops an ongoing exclusive relationship with a man significant internal changes may occur as a result of the process of being intimately involved with another human being. She develops a sensitivity and awareness of the quality and nuances of her relationship with her partner that can carry over to her behavior with others. Sensitivity to relationships is a major element of interdependence. In addition, assertive behavior may be discouraged within such a relationship

while being a definite advantage in maintaining multiple relationships.

It is the woman who uses birth control and is involved in sexual relationships of a more temporary nature who breaks society's codes of behavior. This is the woman who may be viewed as Chilman (1973) phrases it as "perpetually contracepted." This woman, unlike her more feminine contemporaries is more assertive in her behavior style and less traditional in her sexual practices. Unfortunately, the present study did not collect more detailed information as to the number of sexual partners that women in this group were involved with. Further research needs to clarify whether birth control use and sex-role style are more related to the commitment level of the sexual relationship, the affectional level, or to the number of sexual partners.

The relationship of femininity with birth control use and the sexual relationship is evident only when femininity on a behavioral-style level is considered. No support is given in the present study for a direct relationship between primary gender identity (as measured by the Franck Drawing Completion Test) and birth control use. Though psychoanalytic writers have proposed otherwise (Deutsch, 1945) conflict or disturbance in femininity on a primary unconscious level does not appear to be directly related to motivation for premarital pregnancy. Nevertheless gender identification is related to sex frequency

(in temporary relationship women) and sex frequency in turn predicts birth control use.

Writers who found disturbances in primary feminine identification in premaritally pregnant girls (Clothier, 1943; Bernard, 1944), concluded that this disturbance was a preexisting state and that this motivated the girls to prove their ability to conceive and to play the role of a mother. In these studies the use of already pregnant girls, no control groups, or control groups of non-pregnant (but also possible virginal) girls may have led to erroneous conclusions. Many of these older studies also had moral overtones that may have biased the investigators.

The present data in fact can be viewed as contradictory to the proposition that low and insecure feminine gender identity should be found among single pregnant women. Among women involved in temporary relationships, those having high sex frequency (once a week or more) score significantly higher on the Franck Drawing Completion Test (or are more feminine in their gender identification) than those with low sex frequency (once a month or less). This finding does not hold for women in steady relationships. Similarly, among high sex frequency, those in a temporary relationship score more feminine on the Franck Test than do women involved in a steady relationship. The most securely feminine women then are those involved in a temporary relationship who have intercourse on a regular, at least weekly basis. Inadequate birth control users of

course are among those who have high sex frequency. Insofar as women who have intercourse frequently are more likely to become pregnant, one would expect the pregnant temporary relationship woman to be more feminine in her gender identification.

The dimensions of the relationship between sex frequency and gender identification, among temporary relationship women, needs to be further explored. The woman who is highly feminine in her basic gender identification, presumably has a stronger unconscious sense and security of her basic "femaleness," which includes internal representations of her body image. This identification with more female body images (e.g., roundness) may well entail a degree of comfort with her body that permits her to engage in more regular sexual activities. In contrast, the woman less secure in her identification with female body imagery, may be more inhibited in using her body in sexual expression and thus has only sporadic sexual contact.

The evidence in the present study, however, only supports the above reasoning for women in a temporary relationship. As with the anticipation of abortion measure, and the Sex-Role Style measure, differences that appear among women having temporary relationships are not maintained for those having one steady relationship. In this case, the lack of consistent differences among steady relationship women may be more a function of situational

factors than of personality factors. Since the woman in a steady relationship presumably does not have to seek out a partner, it is less clear what factors might account for sex frequency. The woman in a steady relationship is dependent on one particular man for a regular sex relationship. Some of the women with low sex frequency may be having infrequent sex because the sexual partner is not living in the area. No specific data was collected on this issue but a number of women spontaneously mentioned this in their responses. If this is the case, the relationship between sex frequency and gender identification may not emerge unless partner availability is controlled.

The third measure of femininity, the Fe Scale of the CPI did not prive to be related to any of the independent measures. Attitudes and interests traditionally associated with females do not appear to be related to birth control use, type of sexual relationship, or sex frequency. Researchers using the Fe scale of the CPI (Kapor-Stanulovic and Lynn, 1973) or the MF scale of the MMPI (Kutner and Duffy, 1970) have found that this type of femininity is related to the incidence of side effects reported with use of oral contraceptives. However, having side effects does not necessarily lead to discontinuation of effective birth control.

The present study also indicates that sex-role style is more closely related to attitudes and interests of females than to gender identity, insofar as the Sex-Role

Style measure and the Fe were significantly correlated, while Sex-Role Style was not correlated with the Franck Drawing Completion Test. This contradicts McClelland and Watts (1968) proposal that sex-role style, like gender identity, is still experienced at an unconscious level. Sex-role style appears to be more closely connected to the sex-typed attitudes and interests measured by the Fe scale, though the low correlation implies that they are still essentially measuring different aspects of personality. However, since the development of the assertiveness-interdependence dimension of behavior is not entirely clear, it is premature to state that it is primarily experienced at either a conscious or unconscious level.

The original design of the study does not really parallel the model for pregnancy motivation that I have proposed. In the model there is a chain of influence that goes from the intrapsychic factors, to the interpersonal factors, to the behaviors of sex activity and sex frequency and finally to birth control use. Though the effects may be reciprocal this is the basic direction that provides a route to premarital pregnancy. The design however, treats birth control use (together with sex frequency and relationship) as an independent variable, while the model suggests that this factor may be more productively viewed as a dependent variable. Further, birth control use for convenience was considered as an "either-or" situation whereas in reality there were clear gradations of

contraceptive adequacy among the inadequate birth control users.

Breaking out of the confines of the design clarifies and supports aspects of the model. A simple chi-square analysis that included the expanded sample with mid-sex frequency women (every other week, N=157) demonstrated that high sex frequency women more often use adequate birth control while mid and low sex frequency women more often use inadequate birth control, $\chi^2=8.8$, $p<.02$, two-tailed test. Apparently having intercourse frequently provides an impetus (possibly by keeping the issue salient) to obtaining contraceptives. With low sex frequency, the pattern of sex activity may not be well enough established to have developed consistent contraceptive habits. It should also be noted that taking birth control such as the pill may also allow the woman the freedom to more frequently engage in sexual intercourse, without the fear of pregnancy.

The type of relationship, however, temporary or steady, does not predict birth control use, $\chi^2=.87$, $p>.10$. Nonetheless the type of relationship does predict sex frequency with steady relationship women having high sex frequency more often and temporary relationship women having mid and low sex frequency more often than expected, $\chi^2=11.5$, $p<.01$, two-tailed test. This provides evidence for the chaining presented in the model whereby the type of

relationship influences sex frequency and sex frequency in turn affects the adequacy of birth control use.

It is important to note that the present sample included only those women who were currently having intercourse, so for this sample, only sex frequency was relevant to the box labelled sex activity in Figure 3. However, the model proposes a broader perspective on this issue. Sexual activity for single women also includes the initial decision to engage in premarital coitus; women who have decided to take this step may be more motivated for pregnancy and motherhood than virginal women. The model suggests that the intrapsychic factors (e.g., fantasy, sex-role style) together with the relationship will affect the decision making process involved in premarital intercourse, as well as the later choice of birth control. Research is needed to clarify the dimensions of these relationships.

One crucial non-psychological factor that emerges from the data that accounts for adequate birth control use is age. The adequate birth control user is significantly older than the inadequate birth control user. In the model, the third behavioral factor involved in birth control use, concerns birth control knowledge and availability. Though there is no empirical evidence, the strong influence of age on birth control use may come into play at this point. The older woman has had more time to learn of the adequacies of various birth control techniques and has had

the time to obtain them. Further, those with the means to dispense birth control (e.g., medical doctors) may be reluctant to dispense the pill to younger women. Though the university health services were available to all of these women, many of the younger women were first term freshmen, who would have had to obtain, the pill at least, from home town physicians.

For an older sample of woman, the relationship between birth control use and age may no longer by evident. However, the model is intended to be applicable to diverse samples. Other sociological variables are expected to be involved at this level of influence. For example, the availability and knowledge of birth control should also be crucial for those of low-socio-economic status.

The question can also be raised as to whether the proposed model is broad enough to encompass pregnancy motivation in general rather than the premarital pregnancy situation alone. It is not at all clear whether factors related to motivation for pregnancy and motherhood and the use of birth control are similar for married and unmarried women. At the very least the context of the relationship differs, and insofar as this factor has been significantly related to pregnancy and motherhood motivation in the present investigation, one would expect differences to emerge between married and unmarried women, though the parameters of these differences needs to be explored.

Femininity may also play a part in the decision to have premarital sex to begin with and consequently have a different effect on the unmarried women, than on the married women for whom this issue is no longer relevant. The relationship between sex-guilt and retention of birth control information (Schwartz, 1973) may also change depending on whether premarital sex is a crucial issue for the woman's guilt level. Finally, the relationship between sex frequency and gender identity for married women may also differ since they have a more readily available partner, whereas many of the unmarried women in this study were living in dormitories. Nevertheless, though the strengths of the various relationships may differ, the model may well be useful in exploring the factors that lead to pregnancy in married women as well.

A final factor that has not as yet been mentioned is the role of sex drive in the overall model. Clearly sexual drive is too important a component involved in sex activity and in the development of relationships and in turn to birth control use, to be omitted from the model. However, it is beyond the scope of the present investigation to explore the complexities of this area. Other research will be needed to study the dimensions of the input of sex drive on the model.

Overview

A model has been proposed that provides a framework in which to view the multiple levels involved in premarital pregnancy. Basically the model divides the factors into intrapsychic, interpersonal, and behavioral variables and suggests a pattern of relationships between these levels. Further research of course is needed to confirm various aspects and to clarify the relevance of other variables. Other personality factors in particular need to be investigated (e.g., sex guilt, narcissism) and room has been left in the model for further development. The model, nevertheless, provides a useful framework in which to conceptualize new research directions, in particular in viewing birth control use as the dependent variable.

The present data provide some evidence that birth control use is related to motivations for pregnancy and motherhood. The relationship between daydreaming about having children and anticipation of abortion with birth control use and the sexual relationship, helps establish this link.

The TAT measures did not support this finding but the pictures may not have been appropriate to assess the fantasy levels of motherhood and pregnancy. Further research needs to clarify how pregnancy and motherhood fantasy and motivation are related to each other and whether they differentially affect birth control use.

In investigating the issue of femininity, only sex-role style appears to be directly related to birth control use again with the sexual relationship acting as a moderating influence. An interdependent style of behavior, developing out of a focus on the home, and an emphasis on being a wife and mother, may lead to increased fantasies of children and the mother role and to avoiding adequate birth control techniques, for the temporary relationship woman. Further, an assertive style also makes obtaining contraceptive information and devices easier and influences the type of birth control techniques chosen.

A disturbance in gender identity is not directly related to birth control use. A relationship does exist between gender identity (the Franck Drawing Completion Test) and sex frequency (which in turn predicts birth control use) and the type of sexual relationship. An elaboration of the interpersonal level with more detailed data on the nature and number of sexual partners and the overt reasons for high and low sex frequency, may clarify the process by which gender identification effects sex frequency and the sexual relationship. High sex frequency women, in temporary relationships, are more closely identified with female body imagery and this may provide them with the comfort to express their bodies sexually.

The interrelationship between the various intrapsychic factors also needs clarification. Gender identification is the most primary of the factors explored

and presumably develops at the earliest age. Yet it is not predictive of later stylistic femininity nor of the likelihood of having daydreams of having children. Similarly, the latter two factors are only weakly related. Sex-role style is probably somewhat more flexible to change than gender identification and may well vary depending on the circumstances involved.

Daydreaming about having children would also certainly be expected to change in response to external events. The present study assessed only whether the women had ever had a daydream about having children. Further investigation of the frequency of such ongoing fantasies as well as their nature and scope may well clarify the role they play in sexual functioning and the underlying dynamics involved in their occurrence.

CHAPTER V

SUMMARY

The purpose of the present study was two-fold. First, an attempt was made to investigate if premarital pregnancy is specifically motivated. Second, an assessment was made of certain personality factors that may account for this motivation.

The adequacy of birth control use and frequency of sexual intercourse were the two behavioral factors assumed to affect the chances of premarital pregnancy. The type of sexual relationship, temporary or steady, in which the sexual activity occurs, was also expected to affect the motivation for pregnancy. All three factors, birth control use, sexual frequency, and type of relationship, were the independent variables in a 2 x 2 x 2 design.

Fantasies of pregnancy and motherhood, daydreams of having children, and anticipation of abortion were assessed to establish the link between the use of birth control and the motivation for pregnancy and motherhood. Two conceptually different levels of femininity, gender

identification and sex-role style, were also assessed as possible contributing factors relating to birth control use and pregnancy motivation.

It was hypothesized that women using adequate birth control would have less fantasy of pregnancy and motherhood, be less feminine (more assertive) in their sex-role style, and more feminine in their gender identification than women using inadequate birth control. Further, it was hypothesized that among the women using inadequate birth control, those with high sex frequency would have more fantasy of pregnancy and motherhood and be less feminine in their gender identification than those women with low sex frequency. Also hypothesized was that women with a steady relationship would have more fantasy of pregnancy and motherhood and be more feminine (more interdependent) in their sex-role style than women having temporary relationships.

A total of 468 subjects were given questionnaire material. From this sample, the responses of 129 sexually active women were selected for the analyses who met the criteria for adequate-inadequate birth control use, steady or temporary relationships, and high or low sex frequency. The measures included thematic apperception stories for pictures chosen to elicit pregnancy/motherhood imagery, the Franck Drawing Completion Test (Franck and Rosen, 1949), a Sex-Role Style measure (McClelland and Watt, 1968), the Femininity Scale of the California Psychological Inventory

(Gough, 1957, 1966), questions pertaining to daydreaming about children and future plans if pregnancy occurred as well as questions on sexual, contraceptive, and dating habits. A Motherhood Thema Score and Pregnancy Thema Score were derived from the TAT-type stories.

There was some evidence that premarital pregnancy is motivated. Daydreaming of having children occurred significantly more often among women using inadequate birth control than among those using adequate birth control. An interaction with type of relationship was evident for the anticipation of abortion measure, with those in temporary relationships using adequate birth control anticipating terminating a pregnancy through abortion most often. The scores derived from the TAT-type pictures did not yield any differences. This was attributed to the strong stimulus pull of the pictures used.

The birth control x relationship interaction for sex-role style was also significant. Results showed that women in temporary relationships using adequate birth control were significantly more assertive than steady relationship women using adequate birth control. A trend was also found for adequate birth control users to be more assertive than inadequate users among temporary relationship women. Findings were attributed to the focus on motherhood in a female's upbringing and the need for assertive behavior to obtain contraceptives and to maintain

temporary relationships. The possibility of the involvement in a relationship changing personality structure was also discussed.

A significant finding was also obtained for the type of relationship x sex frequency interaction of the Franck Drawing Completion Test. Women who have high sex frequency in temporary relationships were more feminine in their gender identification than women with low sex frequency in temporary relationships as well as women with high sex frequency in steady relationships. It was suggested that security in one's female body concept may be related to expressing the body sexually. Gender identification was not found to be related to birth control use. However, age proved to be significant with older women using adequate birth control more often than younger women.

A model was presented that conceptualized the factors involved in premarital pregnancy as occurring in three realms: the intrapsychic, the interpersonal, and the behavioral. This provided a new perspective on the data and suggested limitations in the design. Viewing birth control use as a dependent variable may be more productive. Type of relationship was shown to predict sex frequency which in turn predicted the adequacy of birth control use. Directions for future research were also discussed.

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APPENDICES

APPENDIX A

DISTRIBUTION OF FULL SAMPLE ON INDEPENDENT VARIABLES

Table 5

Distribution of Full Sample on the Incidence of Premarital Intercourse (N=461)*

Group	Subtotal	Total
Total subjects never having intercourse		232
Subjects currently (last two months) having intercourse	177	
Subjects who have had intercourse but not currently	52	
Total subjects who have had intercourse		229
Total Sample		461

*Four subjects who were divorced and three subjects who did not give information on premarital sex status were eliminated from the original sample of 468.

Table 6

Distribution of Subjects Currently Engaging in Sexual Intercourse on Birth Control Adequacy, Type of Relationship, and Sex Frequency (N=158)*

Group	Sex Frequency		
	High	Mid	Low
Adequate Birth Control			
Temporary Relationship	11	7	11
Steady Relationship	35	3	10
Inadequate Birth Control			
Temporary Relationship	10	6	20
Steady Relationship	19	12	13

*Nineteen subjects were eliminated from the sample of 177 currently sexually active subjects because of incomplete or confusing responses.

APPENDIX B

SEX-ROLE STYLE MEASURE

APPENDIX B

SEX-ROLE STYLE MEASURE*
(from McClelland and Watt, 1968)

1. I like to accept the leadership of someone else in deciding what the group is going to do. (true)
2. I think of myself as a soft rather than a hard person. (true)
3. My feelings are not easily hurt. (false)
4. It is very important to do your best in all situations. (false)
5. Everyone ought to accomplish something really important. (false)
6. While in trains, busses, etc. I often talk to strangers. (false)
7. I have at times had to be rough with people who were rude or annoying. (false)
8. In school I was sometimes sent to the principal for cutting up. (false)
9. It is always a good thing to be frank. (false)

*The items are keyed for femininity.

APPENDIX C

THEMATIC APPERCEPTION TEST: INSTRUCTIONS AND PICTURE DESCRIPTIONS

APPENDIX C

DESCRIPTION OF THE PICTURES USED IN THE FANTASY MEASURES

Picture 1--This is a picture of an obviously pregnant-looking woman staring out a window. She is standing sideways among some large plants. Details of her face are not apparent.

Picture 2--A nude young-looking man and woman are standing looking out a window with their arms around each other. Only their backs are shown. The room in which they are standing is unfurnished.

Picture 3--A young woman is cradling a very young infant. The infant appears to be asleep.

Picture 4--A pregnant woman is sitting beside a man. His arms are around her, one arm touching her stomach. The woman is also feeling her stomach and holding his hand. There is a fire in a fireplace in the background.

Picture 5--A young woman in a body-suit is looking at herself in the mirror. She is brushing her hair. There is an assortment of cosmetics and perfumes on a counter in front of the mirror.

Instructions for Storytelling

On the following pages you are to write out some brief stories that you make up on your own. There are no right or wrong answers. This is designed to give you an opportunity to be as fanciful as you wish, to imagine a situation quickly and write out a brief story about it.

In order to help you get started, there are a series of pictures that you can look at and build your stories around. When you have finished reading these instructions, you should look at the first picture briefly, then turn the page again and write a story suggested by the picture.

To help you cover all the elements of a story plot in the time allowed, you will find four questions spaced out over the page. They are:

1. What is happening? Who are the people?
2. What has led up to this situation? That is, what has happened in the past?
3. What is being thought? What is wanted? By whom?
4. What will happen? What will be done?

Your overall time for each story is about five minutes. There is no strict time limit, but don't write much over five minutes.

Spend about 5 minutes on this story.

1. What is happening? Who are the people?

2. What has led up to this situation? That is, what has happened in the past?

3. What is being thought? What is wanted? By whom?

4. What will happen? What will be done?

APPENDIX D

SAMPLE PROTOCOLS OF DAYDREAMING OF HAVING CHILDREN MEASURE AND ABORTION ANTICIPATION MEASURE

APPENDIX D

SAMPLE PROTOCOLS OF DAYDREAMING OF HAVING CHILDREN MEASURE AND ABORTION ANTICIPATION MEASURE

Do you ever daydream about having children? If so, please describe this daydream?

Yes, I always dream of childbirth and being pregnant. I'm looking forward to having children and I want to nurse them but in my dreams I'm always happily married because I have a long time to be in school, and my career comes first so I'll just be careful.

If you found out next month that you were pregnant, how would you feel? What plans would you make?

I would be upset and hurt. I'd tell my boyfriend and we'd come up with something together. One thing for sure, I would love my baby! (no abortion)

Do you ever daydream about having children? If so please describe the daydream?

I dream about having kids since I love them so much. I think of names and how I would dress them and take care of them and how my husband and I would take them everywhere with us and love them.

If you found out next month that you were pregnant, how would you feel? What plans would you make?

It would depend on who got me pregnant, if it was my boyfriend I would probably keep the baby. If it was someone I didn't love or even like I would probably have an abortion although I strongly disagree with them.

Do you ever daydream about having children? If so, please describe this daydream.

I daydream about my first baby and what it would be like. That I would be married and that my husband and I would be very happy.

Or that I'd been married for a very long time and that I have about six kids and what type of family situation I'd have.

If you found out next month that you were pregnant, how would you feel? What plans would you make?

I'd be scared and probably mad. I would make plans to get an abortion but I would discuss it first with the guy.

APPENDIX E

DATING PATTERNS INVENTORY

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DATING PATTERNS INVENTORY

Please answer all the questions below. You need not put your name on the questionnaire.

1. Age: Father's occupation:
   Year at School:
   Religion: Mother's occupation:

2. Are you presently:
   (circle answer that applies) Single
   Married
   Divorced
   Separated
   Widowed

3. If you are single, are you presently:
   (circle as many as are relevant)
   a) engaged
   b) pinned
   c) living with boyfriend
   d) dating only one man in a serious relationship
   e) dating only one man, but not a "serious" relationship
   f) dating more than one man
   g) not dating

4. If you circled any of the answers "a-d" above, please indicate how long you have been going with this individual:

1) one month or less
2) under three months
3) three to six months
4) six months to a year
5) more than a year

5. Have you ever in the past (prior to your current dating situation) been:

a) engaged
b) pinned
c) lived with boyfriend
d) dated one man in a "serious" relationship
e) dated only one man, but not a "serious" relationship
f) dated a number of men at the same time
g) I have never dated till now
h) I never dated

6. Have you ever had sexual intercourse? YES NO

7. If yes, how old were you at your first sexual intercourse?_____

8. Are you presently engaging in sexual intercourse? (Answer "Yes" only if you have had intercourse at least once in the last two months.)

YES NO

9. How often on the average, are you having intercourse?

1) at least once a day
2) 2-3 times a week
3) once a week
4) about every other week
5) once a month
6) less than once a month
7) I am not having sexual intercourse

10. Have you ever used birth control or contraceptive techniques?

YES NO

11. If yes, please circle those you have used:

1) oral contraceptives--the "pill"
2) foam or spermicidal jellies
3) diaphragm
4) condom or rubbers
5) withdrawal
6) Intrauterine device--IUD
7) rhythm
8) other--please explain:_____

12. Within the last 6 months, have you used any birth control techniques?

YES NO

13. If yes, please indicate the percentage of the time when you have had intercourse, that you have used the following techniques?

1) the "pill"

0 20 40 60 80 100 %

2) foam or spermicidal jellies

0 20 40 60 80 100 %

3) diaphragm

0 20 40 60 80 100 %

4) condom or rubbers

0 20 40 60 80 100 %

5) intrauterine device--IUD

0 20 40 60 80 100 %

6) withdrawal or "coitus interruptus"

0 20 40 60 80 100 %

7) rhythm

0 20 40 60 80 100 %

14. Are there times in the last 6 months that you have engaged in sexual intercourse without the use of some form of birth control?

YES NO

15. Please indicate how often in the last 6 months you have engaged in intercourse without the use of birth control.

/	/	/	/
I am practically never without birth control during intercourse	I have occasionally had intercourse without birth control	I frequently have intercourse without birth control.	I almost always have intercourse without birth control.

APPENDIX F

ANALYSIS OF VARIANCE SUMMARY TABLES

Table 7

Analysis of Variance for the Franck Drawing Completion Test

Source	df	F	p
A. Birth Control	1	.35	.55
B. Relationship	1	.01	.91
C. Sex Frequency	1	.72	.40
AB	1	.03	.86
AC	1	3.63	.06
BC	1	6.32	.01*
ABC	1	.01	.94

Table 8

Analysis of Variance for Sex-Role Style

Source	df	F	p
A. Birth Control	1	.08	.76
B. Relationship	1	3.50	.06
C. Sex Frequency	1	.60	.44
AB	1	4.78	.03*
AC	1	.25	.62
BC	1	.00	.95
ABC	1	.07	.79

Table 9

Analysis of Variance for Pregnancy Thema Score

Source	df	F	p
A. Birth Control	1	2.26	.14
B. Relationship	1	.13	.71
C. Sex Frequency	1	.32	.57
AB	1	1.12	.29
AC	1	2.15	.14
BC	1	.12	.73
ABC	1	.19	.66

Table 10

Analysis of Variance for Motherhood Thema Score

Source	df	F	p
A. Birth Control	1	.00	.99
B. Relationship	1	.00	.96
C. Sex Frequency	1	.08	.78
AB	1	1.76	.19
AC	1	.05	.81
BC	1	.52	.47
ABC	1	.02	.90

Table 11

Analysis of Variance for the Femininity Scale of the California Psychological Inventory

Source	df	F	p
A. Birth Control	1	.00	.95
B. Relationship	1	1.95	.16
C. Sex Frequency	1	.17	.68
AB	1	.60	.44
AC	1	.77	.38
BC	1	.15	.70
ABC	1	.33	.56

Table 12

Analysis of Variance for Age

Source	df	F	p
A. Birth Control	1	9.55	.0025**
B. Relationship	1	1.04	.31
C. Sex Frequency	1	1.21	.27
AB	1	1.68	.19
AC	1	1.51	.20
BC	1	1.71	.19
ABC	1	1.70	.19