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THE SOCIAL AND PSYCHOLOGICAL
DETERMINANTS OF ADOLESCENT
SEXUAL BEHAVIOR

By

Paul Stuart Weikert

A DISSERTATION

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ABSTRACT

THE SOCIAL AND PSYCHOLOGICAL DETERMINANTS OF ADOLESCENT SEXUAL BEHAVIOR

By

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While many have speculated about the relationship of adolescent sexual activity to social and psychological phenomena, little has been done empirically to justify postulated relationships. The purpose of this study was to examine sexual behavior of 2,164 adolescents from a middle class community in Western Michigan as it relates to the development of the individual within the contexts of the family and the community. Both bivariate and multivariate levels of analysis were used to examine the relationship between sexual activity and family structure, dating, bonding, stress, and nonconformity.

The main findings of the study were: (1) Bivariate analysis demonstrated that with most variables of family structure, bonding, stress, and nonconformity significant relationships emerged; (2) Multiple regression analysis showed that dating, nonconforming behavior, and the interaction of stress and nonconforming behavior proved to be the

most significant predictor variables; (3) Discriminant analysis demonstrated that dating was the most powerful discriminating variable and nonconformity and the interaction of stress and nonconformity were the next most powerful discriminators.

The finding that dating and nonconforming behavior are the two variables that emerged in this study as the ones that are most strongly related to sexual activity is consistent with previous findings to be found in marriage, family, and sociological literature. Nonconforming behavior represents the strongest predictive variable while dating is the strongest discriminating variable. Each in turn are significant predictors and discriminators of sexual activity. The use of dating as an explanatory factor of sexual behavior as compared with nonconforming behavior has received inconsistent attention over the years, even though the two are closely related. It can be noted that most of the literature dealing with adolescent sexuality either labels sexual behavior as nonconforming or associates sexual behavior with delinquent behavior. This study found that, in addition to nonconforming behavior, the dating variable is also of importance in explaining sexual activity.

To a lesser degree the bonding and stress variables also demonstrate association with sexual activity. Bonding is more often predictive of male sexual activity, while stress is a more powerful predictor of female sexual

activity. Overall, stress is a more powerful discriminator of both male and female sexual behavior. Thus the usefulness of these variables depends on whether one is attempting to predict sexual activity or attempting to discriminate between levels of sexual activity.

The least predictive variables as a group are those comprising family structure. The use of these variables does help, however, to clarify the nature of the relationship by taking into account the effects of social class, religious preference, sibling positioning, and aspirations toward marriage.

From this research we find that we can differentiate between three distinct levels or groups: (1) low sexually active group--those adolescents who are strongly tied to family and community; (2) average sexually active group--those adolescents who are involved in petting and are having infrequent intercourse with one partner; (3) high sexually active group--those having frequent intercourse and with one or more partners.

A variety of methodological problems were encountered throughout the study which will eventually need to be addressed more fully in future research on sexual activity. They are: (1) In bivariate analysis the colinearity between variables is not taken into account; (2) In multivariate analysis the use of an ordered metric variable in place of a truly interval level variable is a questionable practice;

(3) How an eight item index on sexual behavior is scored has conceptual and empirical implications.

The methods employed in this study have demonstrated that the prediction and discrimination of sexual activity is possible among adolescents through a survey type of methodology.

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CHAPTER I

THE PROBLEM

Introduction

In the United States, the nuclear family is the primary setting for the procreation and rearing of children. As such, the family has an important role in the sexual socialization of individuals. It is here that the basic foundations for later sexual activity are laid. Freud (1905) observed that among the first sexual feelings a youth encounters are those of incest and fantasy. The directing of sexual impulses on object choices outside the family is not only a developmental task of the individual, but also a social task of the family.¹

¹Murdock (1949) considers the control of sexual behavior and reproduction as two of the four basic functions of the family. Even though customs, attitudes, and behaviors change and vary (Ford and Beach, 1951; Marshall and Suggs, 1971; Mead, 1928, 1935, 1949; Zern, 1969), there still remains a concern on the part of most North American parents as to when sexual behavior should begin for their children and when adolescent sexual behavior is at variance to "normal" sexual development. Reviews of developmental sexuality have been presented by Broderick and Bernard (1970), Rutter (1971), Simon and Gagnon (1971), and Spitz and Schumacher (1971) and from these scholars' ideas a better understanding and conceptualization of the nature of human sexual development has evolved.

All societies establish rules of conduct to govern sexual behavior; the variance in those rules, however, is so great between cultures that one sexual code to govern all people is not evident. The same may also be true within a particular culture. Minturn et al. (1969) state that the cultural patterning of sexual beliefs and behavior affects all societies and the amount of that variation in types and frequency of sexual behavior may be greater for sexuality than any other human drive. Davis (1940) points out that parents and children, because they are at different stages in the process of psychosocial development and in different roles in the parent-child relationship cycle, have an ongoing conflict between adult realism and youthful idealism. The sexual tensions experienced by the adolescent and the value stance taken by adults create a conflict of interest for each group. Davis (1940:534) explains:

The parent with respect to the child's behavior, represents morality, while the offspring reflects morality plus his organic cravings. The stage is thereby set for conflict, evasion, and deceit. For the mass of parents, toleration is never possible. For the mass of adolescents, sublimation is never sufficient. Given our system of morality, conflict seems well nigh inevitable.

More often sexual behavior is dealt with in silence rather than openly. In this vein, we know less about the adolescent who is sexually overconforming to adult normative standards regarding sexual expression than we do about the sexually experienced adolescent. Cavan (1962:20) argues that overconforming youth in one respect may be regarded as

"saintly" and are frequently ostracized by other adolescents because of this very "goodness." A better understanding of such phenomena may lead to an enhanced understanding of sexual development in adolescence.

Research on Adolescent Sexuality

Research on adolescent sexual behavior has for the most part been a numbers game of recording how many times an adolescent engages in a particular sexual activity. There is little research which examines the relationship of adolescent heterosexual activity to other familial, physical, social, or psychosocial dimensions. Notable exceptions are Lewis (1973), Jessor and Jessor (1975), and Schofield (1965). During the sixties, increased attention was given to the assessment of heterosexual behavior, especially at the college level, since these samples were most often easily accessible to the researcher (Cannon and Long, 1970). Late in the sixties researchers debated whether heterosexual intercourse was becoming more frequent and at earlier ages, or if the same behavioral patterns established in the forties were being maintained. Conclusive answers regarding coital changes were not achieved during the sixties because the research methodologies employed were often insufficient and the samples drawn were often limited. It was generally acknowledged that attitudes regarding sexual intercourse before marriage had become more liberal; however, there were amazingly little data to support this often made

observation (Croake, 1972; Harrison et al., 1969; Offer, 1971; Reiss, 1960, 1964, 1966, 1970, 1973; Udry et al., 1975). During the first half of the seventies, more definitive research indicated that adolescents were actually engaging in higher levels of sexual activity, i.e. more petting and coitus, at earlier ages (Kantner and Zelnick, 1972; Sorenson, 1973; Vener et al., 1972; Vener and Stewart, 1974). Methodological shortcomings of the past were obviated by more reliable instruments, better samples, and more extensive analysis (Bell and Chaskes, 1970; Christensen and Gregg, 1970; Collins, 1973; Jessor and Jessor, 1975; Kantner and Zelnick, 1972; Sorenson, 1973; Vener et al., 1972; Vener and Stewart, 1974).

At the turn of the century, Freud (1906) presented his perspective of psychosexual development and the importance of the role the family plays in an individual's heterosexual behavior. Hall (1966) thinks that impulse disorders need to be determined by identification conflicts and a redefinition of premarital sexual relationships underlie the coping mechanisms for adolescent sexuality. Gadpaille (1975; 1976) thinks that much of what is regarded as normal adolescent sexuality among middle class American youth is actually psychologically delayed childhood. Bieber (1972) has postulated the effects of parental interaction regarding homosexual behavior, and Fisher (1972) has examined female orgasmic experiences in relation to the father. Many

questions still remain regarding the role and interaction of parents in the social-sexual development of their children. New structural groups as those studied by Constantine and Constantine (1972) will be influential in comparing how psychosexual development is affected by traditional and non-traditional structural groupings in American Society.

Scope and Purpose of the Study

The purpose of this study is to examine sexual behavior as it relates to the development of the individual within the contexts of the family and the community. A descriptive analysis of adolescent sexual behavior in relation to age, dating, family structure, bonding, stress, and nonconforming behavior will provide one level of analysis regarding the relationship of these variables to sexual behavior. From this analysis we will proceed to build predictive and discriminating equations for adolescent sexual behavior. Specific hypotheses will be formulated and tested. A major focus of this study will be to evaluate the relative impact that dating, nonconforming behavior, stress, and social bonding have on the prediction and discrimination of sexual behavior among adolescents.

Previous studies have typically examined only one or two variables at a time in explaining adolescent sexual behavior. The present study will examine the primary variables in a bivariate and a multivariate context in order to assess the individual contribution of each variable and the combined effects of multiple variables.

In this study, it is assumed that sexual behavior is affected by (1) familial structure; (2) familial bonds; (3) perception of institutional officials such as police and teachers; (4) participation in the underconforming peer culture; (5) stress; (6) self-regard; (7) social class; (8) gender; (9) religious beliefs; and (10) college orientation.

Contributions and Implications

Four contributions, that is, the unique, theoretical, empirical, and practical, are seen as being made by this study.

Unique

The unique contribution of the author in this secondary analysis is the conceptualization of the entire data set as to how it relates to adolescent sexual behavior and the use of a multivariate approach to the study of sexual behavior.

Theoretical

Theoretical contributions include (1) the formulation of a model to understand adolescent sexual behavior; (2) possible alternative explanations for adolescent sexual activity beyond the stress/delinquent formulations; (3) laying the groundwork for future sex researchers as to what variables are predictive of sexual behavior.

Empirical

Empirical contributions are: (1) greater understanding of behaviors associated with sexual activity; (2)

an empirical examination of the sexually unexperienced adolescent.

Practical

The practical contributions of this study are threefold: (1) added information to the scientific study of human sexuality during adolescence; (2) additional information for counselors, parents, social workers, teachers, and others working with adolescents; (3) information which can contribute to eradication of myths surrounding adolescent sexual behavior.

Implications

The implications of this study may involve (1) the further exploration of parent-child interaction and its effects on the heterosocial development of individuals; (2) changes in the legal structure, involving the rights of the adolescent and the unmarried regarding sexual behaviors; (3) the impetus for others to carry on and build cumulatively and cooperatively a greater understanding of the sexual nature of human beings.

Summary

This study was undertaken in order to gain a greater understanding of adolescent sexual behavior. The sexual behavior of adolescents will be examined with bivariate and multivariate statistics in order to assess the independent and combined contribution of the variables.

This research departs somewhat from previous

efforts to examine adolescent heterosexual activity in that it will devote attention to both the sexually inactive and the sexually active adolescent. Furthermore, the task of interrelating a large number of primary variables in a multivariate context has not been successfully completed by any researcher of whom the author is aware.

Overview of Thesis

Chapter I outlines the problem of developing a more extensive theoretical and empirical base for looking at heterosexual behavior, and introduces the primary variables.

Chapter II reviews the substantive literature on heterosexual behavior as related to adolescents and relates hypotheses to specific areas.

Chapter III presents the methodology, the design of the study, the sample, the operational definitions of the measures, the measures themselves, and the method of scoring the individual measures, as well as the composite scoring for the primary variables. The proposed analysis of the data, using bivariate and multivariate procedures will be discussed.

Chapter IV presents the analysis of the data and in Chapter V a discussion of the results, a summary, and a conclusion, with implications for future studies of adolescent sexual behavior are presented.

CHAPTER II

REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

Introduction

This chapter will review the literature on adolescent sexual behavior in relation to the major variables used in this study and will formulate the hypotheses to be investigated. Each section is arranged around major themes with hypotheses preceding and following appropriate sections.

Adolescence is a stage of life when the biological, motivational, individualistic, cultural, and social processes intermix in order to propel the individual toward sexual activity. A plethora of theories are available to describe these phenomena. At this point it would serve the reader to distinguish what is meant by puberty and adolescence in this paper. Puberty is meant here to be linked to biological maturation which culminates in an adult body with the ability to reproduce self. Adolescence is the individual and social response to puberty. In these contexts puberty is a universal biological characteristic of human beings, and adolescence is the individual and cultural response to

developing humans. For each culture, ritual and symbolism are developed around the maturing individual.

Gaining sexual ability is a complicated biological process; however, gaining an ability to deal with the psychological social emotional aspects of one's sexual maturity is a learning process which most often begins in adolescence and continues throughout one's life. Learning to love, and to be intimate is sharing a new psychosocial event which in many instances goes contrary to the egocentric, narcissistic behavior of the past. Adolescence is a time when social and peer influences begin to exert influence on the adolescent genitally.

Research on Adolescent Sexual Behavior

In reviewing the studies on adolescent sexual behavior, it is apparent that few attempts have been made to interrelate the sexual behavior of adolescents in a multivariate model to adolescent perceptions, feelings, and behavior. Few, if any, causal sequences have been established in the literature. The major research on adolescent sexual behavior consists of work by seven research teams: Jessor and Jessor, (1975); Kinsey et al., (1948, 1953); Miller and Simon, (1973); Schofield, (1965); Sorensen, (1973); Vener et al., (1972); Vener and Stewart, (1974); and Zelnick and Kantner, (1972a, 1972b). The only researchers to look comparatively at adolescent sexual behavior with the same population are Vener et al., (1972), Vener and Stewart (1974)

and Jessor and Jessor (1975).¹

The sexual research literature which has developed testable propositions has mostly been done with college students, ages nineteen through twenty-three, while the sexual research literature on the twelve through eighteen-year-old age group is quite limited with respect to development and testing of hypotheses. With this in mind, two qualifications need to be mentioned regarding the literature review: (1) little of the data reporting sexual activity levels are from studies on adolescent sexual behavior, and (2) the paucity of data extant does not develop a corresponding theory to predict or explain the behavior. Data reporting on the impact of reference groups, permissiveness, and liberality on sexual adjustment are primarily from college samples.

If sexual behavior is increasing and starting at earlier ages (Jessor and Jessor, 1975; Miller and Simon, 1973; Sorensen, 1973; Vener and Stewart, 1974), the traditional socialization forces will possibly be in conflict with peer subcultures, thus adding confusion for adolescents as to what decisions to make regarding their own sexual

¹Other studies and critiques on adolescent sexual behavior reporting behavioral data are included when appropriate for historical and baseline reasons (Achilles, 1923; Asayama, 1975; Broderick, 1966a, 1966b; Finkel and Finkel, 1975; Geise and Schmidt, 1968; Golbetti and Harrison, 1970; Hamilton, 1929; Hughs, 1926; Lester, 1970; Lewis, 1975; Offer et al., 1970; Ramsey, 1943; Schmidt et al., 1972; Time, 1972; Wagner et al., 1973; Willoughby, 1937; Wolman, 1951).

lives. Reiss (1967:174) points to this parent-child conflict when stating:

The conflict between the family and the courtship systems illustrates the ways in which "deviant" sexual behavior (coital behavior) may be promoted by the very people who define it as deviant.

Reiss (1967:166) further states that two determinants of premarital sexual permissiveness are the courtship system and the family. The same may also be true of sexual behavior. For Schofield (1965), the predominant characteristics of his sexually active sample were high ethnocentrism to the peer group and low restrictiveness from the home; that is, a high value is placed on the peer group and a low value on parental restraint. The role position of the adolescent encourages sexual freedom, whereas the role position of the parent encourages low levels of sexual activity.

Family and Structural Variables

Introduction

The structure of the family and its effect on individuals has been conceptualized in many different ways by various scholars and clinicians. Family structure is comprised of the family's social class, religion, father's occupation, the number of children and their ordinal positions, and the number of parents in the home. While family structure variables have had some use in the sex researcher's study of adolescent sexual behavior to date, such a practice would appear potentially fruitful in light of

various reports in the research literature citing family structure as an important variable in adolescent mental health (Westly, 1958) and delinquency (Browning, 1960). Since confusion existing during adolescence is normally centered around sexual identity (as well as vocational choice making, separation, and self-identity) and this often takes place within the family structure, a consideration of family structure variables in the study of adolescent heterosexual behavior is warranted. The variables of dating and school preferences are included in this review section, but are not seen as being a part of family structure.

Social Class

H₁: There is a negative relationship between sexual² activity and social class.³

The influence of social class on adolescent sexual behavior has not yielded conclusive propositions from empirical investigations to date; however, there is some evidence which, although contradictory, may be built upon.

The impact of social class and home background on sexual behavior was examined by Schofield (1965:143). While there were no significant associations between these variables within the sample taken as a whole, Schofield (1965:141) reported that females from higher social classes were

²All references to "sexual activity" mean heterosexual behavior.

³Hypotheses are presented at the beginning of each relevant literature review area and in the summary at the end of each section.

more likely to be sexually active, significant at the .02 level, than their lower class counterparts.

On the other hand, a number of researchers have reported a relationship between social class and sexual behavior in a direction opposite to that reported by Schofield. If we consider educational level as an indicator of social class, assuming that children attain an educational level similar to or slightly higher than that of their parents, the report by Kinsey et al. (1953) indicates that higher social class (as evidenced by higher educational level) is associated with less premarital coitus between the ages of 16 and 20 than lower social class (Kinsey et al., 1953:331). Females with a grade school education reported a 38 per cent incidence of premarital coitus by age 20, while between 17 and 19 per cent of females in college reported the same behavior. For males, the respective incidences are 85 per cent for high school level and 42 per cent for college.

Reiss (1965a; 1966) also found no relationship between social class and sexual permissiveness.⁴ In follow-up studies of Reiss (1967) by Staples (1971), Maranell et al. (1970), and Middendorf et al. (1970), Reiss' (1965a:750) hypothesis that "among conservative people those of higher

⁴Studies using sexual permissiveness (attitudes toward sexual activities) will also be reviewed. No assumptions are made here regarding the influence of attitudes on behavior and vice versa. The intention is to use the sexual permissiveness literature as an indication that the relationship may be useful in the analysis of behavioral data.

status would be less permissive than those of lower status, while among more liberal individuals the relationship would be in the opposite direction" was tested. The hypothesis overall was not supported by the data.

Based then on the work primarily of Kinsey et al. (1948; 1953) the negative relationship between social class and sexual activity is postulated.

Religion

H₂: No relationship exists between heterosexual activity and having a specific religious preference.

H₃: There is a positive relationship between sexual activity and having no religious preference.

The impact of religion on adolescent development carries over into the decision making of an adolescent regarding sexual behavior. Since the three religious denominations reported on in this investigation (Catholic, Jewish, and Protestant) subscribe to the standard of virginity before marriage, we would not expect any significant differences between the incidence of sexual intercourse due to religious denomination. However, when examining levels of sexual conformity one might expect differences to emerge due to the intensity with which the religious denomination prohibits sexual activity. In this instance one might expect Catholics as a group to be more over-conforming than Protestants and Jews, and people with no religious preference to be the least over-conforming because of the social pressures exerted by the major denominations to be sexually abstinent before marriage.

Schofield (1965:148-149) found few differences in sexual activity between adolescents from different religious denominations. Twenty-two per cent of the males and forty-five per cent of the females studied cited moral and/or religious considerations as reasons for their sexual abstinence (Schofield, 1965:129), with religion having much less impact on their sexual decision making.

Ehrmann (1964) does not think that religious affiliation is related to premarital sexuality but that the degree of religiosity is related; this concept will be dealt with under religiosity. Given the lack of evidence supporting any relationship between premarital coitus and religion, a directional prediction will not be made in relation to a specific denomination. Differences though are expected to emerge when specific religious denominations are compared with those who state that they have no specific religious preference.

Family Size

H₄: There is a positive relationship between sexual activity and being a member of a large family.

Straus and Libby (1965:55) have noted that two assumptions can be made regarding family size: (1) the number of siblings in a family affects the nature of the interaction within that family and (2) differences in the interactional environment of the child should result in differences in the personality of children reared in large, medium, and small families. Thus, the addition of another

sibling to the family results in a more varied social experience while differences in child-rearing practices over the family cycle result in differential levels of socialization (Mac Donald, 1967; 1969). Bossard and Boll (1954; 1956) have noted the negative relationship between adjustment and family size with numerous other researchers both confirming and not confirming their hypotheses (Damin, 1949; Elder, 1962; Hawkes et al., 1958; Henry, 1957; Majoribanks and Walberg, 1975a, 1975b; Reddy, 1967; Smart, 1963; Swanson et al., 1972). Literature relating family size to sexual behavior is almost non-existent. However, given the possible loss of attention given by parents to children from large families, which may result in a form of social and affectional deprivation, we would expect adolescents from these families to seek affection outside the home. Therefore, we postulate that coming from a large family will be positively related to sexual activity.

Sex of Siblings

H₅: Adolescents from same sex families differ in their sexual activity from those in cross-sex families.

The influence of brothers and sisters on sex role behavior was investigated by Leventhal (1970) who tested the hypothesis that younger children tend to imitate older siblings in two child families. Possible explanations for this behavioral difference are (1) the younger male with an older brother may try to behave differently in order to be recognized, and (2) following an early period of identification

with an older sister, a younger male may act differently in order to avoid disapproval from parents and peers.

Schmuck (1963) found that girls with a sister have a higher tendency to defy than girls with a brother, who have a higher tendency to conform. This finding indirectly supported the Parsons and Bales (1955) theory that girls with a sister will develop more masculine characteristics and the tendency to defy. Brittain (1966) followed Schmuck's reasoning and found that ninth and tenth grade females who had male siblings close to their age tended toward parental conformity, whereas females with sisters near their ages tended toward peer conformity. Kahn et al. (1972) reported that males with an older sister were avoidant of heterosexual relationships, had a greater tendency toward homosexuality, and thought of sex as repugnant. Thus we expect that adolescents with a same sex sibling will engage in more sexual activity than adolescents with opposite sex siblings.

First Borns

H₆: There is a negative relationship between sexual activity and being first born.

Freud (1938) observed that "a child's position in the sequence of brothers and sisters is of very great significance for the source of his later life." Adler (1920, 1927, 1945, 1956) was one of the first psychologists to postulate seriously the effects of birth order on personality development. Adler's main contention was that first-borns would

be more conforming to adult normative standards than later-born siblings because of their desire to please, be accepted, and the interactive nature of the parent-first child relationship. For purposes of this study, first-born adolescents would then be expected to be overconformers. Support for this Adlerian hypothesis is born out by the research of Ehrlich (1958), Hall and Berger (1964), and Altus (1959), who found first borns to be more conforming, serious, conservative, and better at organizing alternatives.

The tendency to be conservative among first-borns has been found to lead to potential problems for such siblings, as reported by Grossman and Eisenman (1972). They found that first borns have a stronger internalized moral code which later produces difficulties in handling sexual and aggressive impulses, and that these impulses are often manifested through projection.

Kilpatrick and Cauthen (1969) found that dogmatism is significantly related to personal sexual attitudes. While males were more generally liberal in their sexual attitudes, first-born males and females had more conservative sexual attitudes than later-borns.

Reiss (1967) found that when older siblings were responsible for younger siblings they were more often less permissive than only children who did not have this responsibility. This supported Reiss' (1967:156) Proposition 7: "The greater the responsibility for the family members and/

or the less the courtship participation, the greater the likelihood that the individual will be low on permissiveness." Some confusion does exist as to why Reiss linked responsibility and courtship in the same proposition.

On the other hand, Touhey (1971a, 1971b) when examining birth order and virginity found that first-born college males and females were more likely to have engaged in premarital intercourse than later-borns. The data were interpreted as first-borns adopting adult roles earlier in life. Douvan and Adelson (1966) point out that first-born adolescents are strongly motivated to assume the rights and responsibilities of adult roles. These findings are contrary to the assumptions and findings of overconformity stated earlier. In the absence of concrete data on a positive relationship between sexual activity and being first-born, we will follow the bulk of the literature and assume that a negative relationship exists.

Later Borns

H₇: There is a positive relationship between sexual activity and being later born.

Diamond and Murry (1967) report that later-borns are more socially adept than first-borns, and Jourard (1959) found that later-borns have more meaningful social interactions. Jourard thinks that people who self-disclose more seem to have broken down the barriers in interpersonal relationships. Brag and Allen (1970) offer contradictory evidence on conformity, that is, in their study, highest

conformity was found for later-born females with a same sex sibling.

Miller and Zimbardo (1966) found that last-borns at least five years younger than next older sibling react more like first-borns than do later-born children; this may be because both groups lack slightly older peer models. Given the available literature on later borns regarding their heterosociability, we postulate that there is a positive relationship between later borns and sexual activity.

Dating

- H₈: There is a positive relationship between sexual activity and dating behavior.
- H₉: Dating accounts for more variance than any individual predictor.
- H₁₀: Dating accounts for more variance and has greater predictive value than the summary measures of bonding, stress, and nonconforming behavior taken individually.
- H₁₁: Dating will have a greater discriminating ability than any other variable.

Waller and Hill (1951) called dating "aim-inhabited courtship" because they found that young people can date each other without either of them or their parents assuming that, because they date, they are seriously interested in each other. Dating and going steady will offer the adolescent opportunities for trying out roles characteristic of the comprehensive marital relation without having to be responsible for the consequences from failure that involves the committed married pair (Goslin, 1971; Kirkendall and Libby, 1966).

Contrary to popular opinion, boys and girls begin to date and go steady at approximately the same ages (Broderick 1968a, 1968b; Feinstein, 1973). Although girls may begin and attain physical maturity earlier than boys, recognized sex differences in physical development seem to have little relation to ages at initial dating. Dating is a social relationship which is defined by cultural norms, not by biological development per se (Christensen, 1964), and only a minimum level of physical development is necessary to start dating. Collins (1973) found that freshman university students were more likely to think that persons in their peer group were more sexual than the data indicated--creating a desire to conform. Median ages for initial dating among the high school males and females in Lowrie's samples (1952) ranged between 14.1 and 14.9 years; the averages reported by Bardis (1958), Cameron and Kenkel (1960), and Boch and Burchinal (1962) were toward the lower end of the range reported by Lowrie.

Schofield (1965) and Bell and Chaskes (1970) confirm that those adolescents who start sexual activities other than intercourse at an early age are more likely to have sexual intercourse before marriage. Thus initiation and opportunity at early ages start the process of trying out the role of being sexually intimate with another person.

Harrison (1969) et al. found that the number of times a high school student had gone steady positively

influences sexual permissiveness for whites. Sorensen (1973) found that of all nonvirgin girls, 57 per cent said that their first intercourse partner was someone they were going steady with, compared to 25 per cent of the nonvirgin boys making the same claim. Forty-four per cent of all nonvirgin boys said that their first sex partner was a girl they knew slightly or had met only a little while before they had sex together. Only 15 per cent of the girls said that their first sex partner was a boy they knew slightly or had met only a short time before. Virtually none of the boys reported having their first sexual intercourse with a prostitute (Sorensen, 1973:199).

Smith (1969) asserted that while the dates were characterized by intimacy, adolescents were confused about how much sexual behavior was permitted since they received no clear initiation into behavioral norms and their peers often could not clear up the confusion. Success in dating depends on accepting the roles approved by peers (Hurlock, 1972), and if girls (Halleck, 1967) and if boys (Schofield, 1965) believe there is more sexual activity taking place than is actually the case, they are subjected to pressure to conform to the sexual experiences of others (Kanin, 1969). Thus adolescents may be forced into sexual experimentation for which they are as yet emotionally unprepared (Kestenbaum, 1978). Gadpaille (1978), in response to Kestenbaum, vividly points out that adolescents who are disturbed by their

sexual behavior may more likely be seen in therapy than the adolescent who is not disturbed by such experience. Therefore, adolescents possess differing degrees of readiness for sexual activity and sweeping generalizations about all adolescents are unwarranted.

Schofield (1965) and Collins (1974a, 1974b) expressed in their findings that many adolescents perceive their peers as more sexually experienced than they are themselves; therefore, the amount of pressure of the peer group on adolescents may be considerable, since it is so important for them to behave in a similar manner.

Schonfeld (1950) has equated feelings of difference with feelings of inferiority during adolescence, so that many people may be indulging in deeper forms of intimacy than are necessary to maintain a pleasant dating relationship and other aspects of this relationship may then suffer (Martinson, 1971).

Collins (1974a, 1974b) showed through his studies an initial tendency for males to be more experienced sexually than females, with the behavior of females approaching that of males as the commitment in the affectional relationship increased. He also showed that the majority of males do expect some petting after several dates, with the female adhering to the code of petting-with-affection. This supports the contentions of Hurlock (1967) that adolescents going steady typically believe they are in love and that going steady can add acceptability to heavy petting and

intercourse. Once some commitment to marriage is entered into, mutuality is clearly evident and no differences were found in the incidence of coitus (Collins, 1974a, 1974b). McCandless (1970) has also observed that girls were far less rejecting and more permissive in sexual behavior once some commitment to marriage was made. Ehrmann (1959a, 1959b) notes in his study of premarital dating behavior that the limitations of premarital sexual behavior are primarily female determined.

Given the relative stability of rates of early and premarital coitus and continuity of the role of dating factors in facilitating this behavior, popular discussion of the contemporary sexual revolution is seen as being out of touch with reality and possibly inducing anxiety among young people when they do not experience the sexual revolution (Simon et al., 1972). The new sexual behavior is the welding of personal morals with an ethical code (Robinson et al., 1968). The code governing this relationship is that of permissiveness with affection (Reiss, 1962) and the emphasis is placed upon the relationship instead of the sex or commitment separately (Kirkendall, 1960).

Trends have emerged in the sociological and psychiatric literature which have associated the sexual intercourse behavior of adolescents as delinquent, deviant, and maladjusted. In essence, these types of judgments are saying that those adolescents who are having or have had

intercourse are systematically different from adolescents who have not had intercourse. This seems to be an arbitrary distinction--labeling an adolescent's sexual behavior without examining that behavior in relation to selected variables for different levels of sexual behavior. For instance, do both qualitative and quantitative differences exist between heavy petters and those having intercourse with one partner; between those having intercourse with one partner and those having intercourse with more than one partner? If there are indeed statistically significant differences between these groups, we may begin to understand more thoroughly how a person deviates as a result of also being sexually active; applying, however, the labels of deviant or maladjusted may not be affective since these labels are more the result of judgments made by individuals and groups from a particular value stance, rather than from a statistical basis.

Marriage Plans

H₁₂: There is a positive relationship between sexual activity and expecting to marry at an early age.

Age of marriage as related to sexual behavior seems to be governed by the intimacy of the dyad. As couples move from casual dating to a committed relationship, sexual intimacy also increases in most cases. This is true regardless of which courtship theories you subscribe to; that is, intimacy-commitment spiral (Broderick, 1967; 1970; Waller and Hill, 1951), stimulus-value-role (Murnstein, 1967)

complementary needs (Winch, 1955a, 1955b; Winch et al., 1954), or developmental dyadic formation (Lewis, 1973). It appears that the closer a dating couple, regardless of age, approaches marriage, the more likely they are to engage in sexual intercourse. The question which remains to be answered is whether or not adolescents who anticipate marriage at an early age initiate their sexual activity at a correspondingly earlier age.

Schofield (1965:124) found, when examining attitudes toward marriage, that approximately 80 per cent of the males and 65 per cent of the females (average of older and younger groups) desired to marry after age 21. Eight per cent of the boys and 33 per cent of the females desired to marry before reaching 21. Eleven per cent of the males and about 3 per cent of the females did not know if they wanted to marry.

Sorensen (1973:344) found high acceptance to the question "Someday I will probably want to get married and have children," by all subjects, virgins and nonvirgins alike. Sexual adventurers (adolescents having more than one intercourse partner) reported positively 73 per cent of the time. Sorensen concludes that intentions to marry have no effect on sexual behavior during adolescence.

It is expected that sexual activity is related to marriage plans in that the earlier one plans to get married, the more likely that dating will begin at an earlier time.

Thus a positive relationship between sexual activity and desiring to marry early is expected to emerge.

Expected Family Size

H₁₃: There is a positive relationship between sexual activity and the desire of having a large family.

The expected size of one's future family is relevant to the study of population and family patterns in the United States. As a variable relating to sexual behavior, no references were found in the literature to substantiate a relationship. A person who has the desire to have a family may begin having sexual intercourse at an earlier age than the person who does not want children or may only want one child. Thus the postponement of wanting children may be related to sexual values, educational aspirations, or lack of available partners. Thus we expect a positive relationship between desiring to have a large family and sexual activity.

Anticipated Early Marriage and Desiring a Large Family

H₁₄: There is a positive relationship between sexual activity and the expectation of marrying early and having large families.

While no literature exists for the combined factor of desiring to marry early and having a large family, we expect a positive relationship because this group of adolescents will accelerate the dating process in order to find a suitable marriage partner. As previously noted, an adolescent who dates early will move through the levels of sexual activity more quickly than an adolescent who begins dating

later.

Student Values

H₁₅: There is a negative relationship between sexual activity and student types valuing the educational and vocational side of school. V and E

H₁₆: There is a positive relationship between sexual activity and student types valuing the social life of school or preferring to be out of school. S and W

It is expected that students who identify with being in school for academic or vocational reasons will more likely follow adult normative expectations. Thus a negative relationship with sexual activity is postulated. Conversely, those students valuing school for social life or desiring to be out of school are not conforming to adult normative expectations and it is postulated that their preference is positively related to sexual behavior.

Summary of Hypotheses H₁ through H₁₆

Sexual activity is significantly related to family structure. There is a negative relationship between sexual activity and:

H₁ social class.

H₆ being first born.

H₁₅ student types valuing the educational and vocational side of school. V and E

There is a positive relationship between sexual activity and:

H₃ having no religious preference.

H₄ being a member of a large family.

H₇ being later born

H₈ dating behavior.

H₁₂ expecting to marry at an early age.

H₁₃ desire of having a large family.

H₁₄ those expecting to marry early and have large families.

H₁₆ student types valuing the social life of school or preferring to be out of school. S and W

There is no relationship between sexual activity and:

H₂ having a specific religious preference.

Adolescents:

H₅ from same sex families differ in their sexual activity from those in cross-sex families

Dating:

H₉ accounts for more variance than any individual predictor.

H₁₀ accounts for more variance and has greater predictive value than the summary measures of bonding, stress, and nonconforming behavior taken individually.

H₁₁ will have a greater discriminating ability than any other variable.

Bonding

Introduction

H₁₇: There is a negative relationship between sexual activity and bonding.

The influence of the family, community, religiosity, faith in people, authoritarianism, school classes, and college orientation seem to have a dampening effect on the sexual behavior of the adolescent. It is the social setting of the family and the community that shape the child's perceptions and attitudes to the world. Those adolescents who

have positive perceptions of parents, teachers, police, and religious leaders are thought to be less sexually active because of their continued affiliation with adult normative standards. The hypotheses of this study will state that there is a negative relationship between adolescent sexual activity and the variables regarding bonding. Bonding in this study is seen as the sum of family and community bonding. An overview of the work done in this area is presented in this section.

Family Bonding

- H₁₈: There is a negative relationship between sexual activity and family bonds.
- H₁₉: There is a negative relationship between sexual activity and parent-child communication.
- H₂₀: There is a negative relationship between sexual activity and parental acceptance.
- H₂₁: There is a negative relationship between sexual activity and parental congeniality.

Schofield (1965:144) examined the strength of parent-child relations using the question "What do you like least about your father?" A similar question was asked about the mother. Significant results indicated that girls who were less sexually experienced got along better with their father. For the mother, significant results were obtained with adolescents who got along better with the mother if they were less sexually active. Regarding the adolescents' perceptions of the marital happiness of their parents, Schofield (1965:144) reports that no strong

relationship exists for boys; however, for girls there is a strong relationship, significant at .001 level, between perception of parental marital satisfaction and level of sexual activity for the female adolescent.

This is the extent of the evidence we have to build upon regarding family bonding. Following Schofield we postulate a negative relationship between family bonding and sexual activity. Family bonding is the sum of the indexes of parent-child communication, parental acceptance, and parental congeniality.

Community Bonding

- H₂₂: There is a negative relationship between sexual activity and community bonds.
- H₂₃: There is a negative relationship between sexual activity and perception of police.
- H₂₄: There is a negative relationship between sexual activity and perception of the church.
- H₂₅: There is a negative relationship between sexual activity and perception of ministers.
- H₂₆: There is a negative relationship between sexual activity and perception of the school.
- H₂₇: There is a negative relationship between sexual activity and perception of teachers.

The adolescent is usually tied to the community through the familial system which is only one of many community structures. McGuire (1951) describes how family, formal associations, educational, religious, economic, political institutions, and formal organizations are operating as social organizations. The experiences of the adolescent

differ according to his or her background with these institutions.

The adolescent who is conforming to the adult normative standard of trying to be "good," that is, achieving well in school, and not delinquent, experiences compatibility with community figures. For the high achieving and conforming adolescent, rewards are found in terms of good grades, praise from teachers, and encouragement by being given extra privileges in the community. Essentially, the youth is trusted and looked upon favorably by adults.

The positive perception of police, teachers, and ministers by the adolescent may well be related to sexual activity since an adolescent who perceives police, teachers, and ministers to be friendly, helpful, and interesting may also be the adolescent who is less sexually active because s/he positively views role models, and thus conforms to the adult expectations around sexual behavior. Similarly, an adolescent who does not trust these role models, may have a different attitude with their sexual behavior being more in conflict or opposed to adult expectations.

Community bonding is the sum of police, church, minister, school, and teacher perception.

Religiosity

H₂₈: There is a negative relationship between sexual activity and religiosity.

In recent years it has been argued that religiosity has a declining influence on contemporary American behavior

(Baker, 1965:6; Hernberg, 1960:2). This may be so regarding the external behavior (church attendance, strictly outlined ethical values) but on the other hand, there is a sudden rise in importance of the cognitive dimensions concerning religiosity. Many adolescents are showing a great interest in Eastern religions, meditation, and the participation in alternative forms of organized religious activity, such as the Jesus Movement, has been widely noted.

This study is concerned with the relationship of religiosity on the sexual activity of the adolescent. There have been many discussions as to what comprises an adequate measure of religious commitment (Vernon, 1962). Historically, religious commitment has meant whatever it means "to be religious." Today, however, most sociologists of religion agree that the use of a single criterion to provide a measure of religious commitment covers too broad an area to be scientifically accurate. Vernon (1962) states

...Such criteria as church membership, church attendance or acceptance of specific beliefs are often considered to measure religiosity... There would seem to be a valid distinction between "being religious" and being a church member "attending church," or accepting a specific belief.

Ehrmann (1964:609) was aware that religious affiliation is not necessarily related to sexual behavior, but that religiosity may be related. Kinsey et al. (1948:79; 1953:304-307) used a slightly different term, devoutness,

to examine the same concept and found that this dimension was most predictive of female sexual behavior. Similar findings were reported by Ehrman (1959:93-94) and Burgess and Wallin (1953:338-340). Reiss (1967) found that among whites low church attendance was indicative of high sexual permissiveness for both men and women. Heltsley and Broderick's (1969:441) data did not support the Reiss hypothesis for males and females. However, Reiss (1969:441) thinks that the proposition was not properly interpreted by Heltsley and Broderick; the sample used was over-represented with white females who were drawn from marriage and family classes, and the measure of religiosity was different. Heltsley and Broderick (1969:443) offer a simpler proposition: "that when sexual abstinence is emphasized by a church, religiosity will be related to sexual permissiveness; but when it is not stressed, the two will be unrelated."

Schofield (1965), in his study of English adolescents, found that church attendance is strongly associated with levels of sexual activity for both males and females. Clayton (1969:47), with a sample of college students, tested the hypothesis that "the more ideologically orthodox respondents would be less likely to engage in premarital intercourse than the less ideologically orthodox respondents." Clayton was trying to tap ideological commitment. The hypothesis that religious orthodoxy negatively influences premarital coitus was supported except for those belonging

to sorority and fraternity groups. For Greeks (fraternity men) orthodoxy did not restrain premarital sex. Dedman (1959) found that the relationship between religiosity and attitude toward premarital sexual relations to be significant (.001) for college freshmen and seniors. By using church attendance and the relative frequency of having a mate who belongs to the same faith, she concluded that a violation of social norms will most likely occur among individuals who are sensitized to public disapproval.

Staples (1971) studied an equal sample of black and white college students on sexual permissiveness and religiosity as reflected by church attendance and found religiosity inversely related to permissiveness; the relationship was stronger for females than males.

Harrison et al. (1969) in a study of sexual permissiveness among high school students examined religious involvement such as religious membership, attendance, and leadership positions finding that permissiveness decreased as religious involvement increased. Lindenfield (1960:81-84) found that the individuals with a high degree of religiosity were more conservative in their attitudes concerning sexual behavior than those scoring lower on religiosity as measured by "the importance laid on religion by the group."

The same results are found in a series of studies dealing with sexual permissiveness and some form of religiosity (Harrison et al., 1969; Hunter, 1971; Lindenfield, 1960;

Miller and Simon, 1974; Rohrbaugh and Jessor, 1975; Ruppel, 1969; Simon et al., 1972; Sutker et al., 1970; Vadiver, 1972).

In most of the studies reviewed, religiosity, regardless of how it was measured, was inversely related to premarital sexual permissiveness, premarital sexual intercourse, for males and females alike, regardless of age and irrespective of grades in school. Thus we are following the literature postulating a negative relationship between religiosity and sexual activity.

Authoritarianism

H₂₉: There is a negative relationship between sexual activity and authoritarianism.

Respect for authority, the importance of obedience, gratitude for parents, and valuing strictness of parents with children reflects a form of bonding to a form of discipline which is possibly connective of individual adherence to the value structure of family and nation. An individual would then be expected to be more strongly bonded to conventional orientations of morality. Thus, individuals who are strongly authoritarian are similarly expected to tend towards less sexual activity. By exploring the concept of authoritarianism in relation to sexual behavior, this study can therefore be of value in understanding its relationship to adolescent sexual behavior.

Faith in People

H₃₀: There is a negative relationship between sexual activity and faith in people.

The extent to which an adolescent thinks s/he can trust or depend on other people is reflected in the index of faith used in this survey. It is thought that faith relates to the area of bonding because of the relationship to significant others in the adolescent's subculture. For instance, an adolescent's relationships with parents, teachers, ministers, and police are indicative of whom the adolescent trusts. Therefore, we would expect faith to be inversely related to sexual behavior, that is, the closer an individual is bonded to those who uphold the culture's value stance of virginity, the more likely that an adolescent would inculcate these values.

College Orientation

H₃₁: There is a negative relationship between sexual activity and college orientation.

Accounts of grades and their relationship to adolescent sexuality are presented by Schofield (1965:152) and Sorensen (1973:230). Their findings are similar--higher grades are indicative of the middle levels of sexual activity. For instance, Schofield found that among those who stayed in school and had high grades their behavior was more likely to be inceptive (petting and genital apposition). Sorensen found his monogamist group to have the highest grades of his four sexual categories--52 per cent of the monogamists reported grades of good or superior as compared with 43 per cent for all adolescents, 48 per cent for the sexually inexperienced, 44 per cent for all non-virgins,

and 32 per cent for sexual adventures.

In that college orientation reflects achievement of a goal at a later time, a form of delayed gratification is present in the outlook of the adolescent. Thus, postponement of marriage and reduced sexual activity is expected. Again a negative relationship is expected between sexual behavior and college orientation.

Liking School Classes

H₃₂: There is a negative relationship between sexual activity and liking school classes.

An indirect measure of bonding to societal institutions is the degree to which an individual likes his/her classes in school. Thus we would expect liking school classes to be negatively related to sexual behavior since liking school is part of adult normative expectations.

Summary of the Bonding Hypotheses

There is a negative relationship between adolescent's sexual activity and:

- H₁₇: bonding
- H₁₈: family bonds
- H₁₉: parent-child communications
- H₂₀: parental acceptance
- H₂₁: parental congeniality
- H₂₂: community bonds
- H₂₃: perception of police
- H₂₄: perception of church
- H₂₅: perception of ministers

H₂₆: perception of the school

H₂₇: perception of teachers

H₂₈: religiosity

H₂₉: authoritarianism

H₃₀: faith in people

H₃₁: college orientation

H₃₂: liking classes

For the above hypotheses the following hypothesis was tested: There is a difference in the means scores between the five levels of sexual activity.

Nonconforming Behaviors

Introduction

H₃₃: There is a positive relationship between sexual activity and nonconforming behavior.

This section will examine five areas of literature dealing with adolescent behaviors, which are often thought of as nonconforming acts in relation to adult normative and legal standards. The first area, delinquent image, will examine the adolescent who perceives self as delinquent or whether the adolescent perceives that someone else sees him/herself as delinquent. The four remaining areas of nonconforming behavior to be covered are smoking and drinking, drug usage, and acts of a delinquent nature, such as theft, skipping school, fighting, and vandalism. Unfortunately measures of peer group association are not contained in the study, so only a few references will be made to this literature. The area of drug use is one of the more confusing

areas since it interfaces with peer group involvement (Kandell, 1973), institutional and legal codes (Cwalina, 1968), and family relationships (Streit and Oliver, 1972). Why individuals use drugs, what effect they have, and the social legal implications are a continuation of a pattern of a confusing dilemma faced by American society (Berg, 1967).

Delinquency, overall, is a perplexing area for research. Differences between delinquent behavior and official delinquency exist (Williams and Gold, 1972) like differences between parental versus peer support for delinquent acts (Jensen, 1972). The court system is no less confusing in its treatment of juveniles, often ignoring the personal needs of youth and providing the conditions which foster deprivation and delinquency (Polier, 1973).

Nonconforming behavior is the sum of drinking, smoking, drugs, and general delinquent acts.

Delinquency Image: Self and Other Perceptions

H₃₄: There is a positive relationship between sexual activity and delinquent self-image.

The two parts of this conceptualization are concerned with how one views him/herself and how others view him/her. In the realm of delinquency there is uncertainty as to how this relates to sexual activity. If delinquent acts are highly correlated with sexual behavior and if an adolescent was seen by self and others as delinquent, then one would expect a positive relationship with sexual behavior.

Kaplan (1975) found that in a sample of 3,148 seventh grade students measured at three different annual intervals, increases in negative self-attitudes were antecedent to deviant acts. This suggests that negative attitudes toward self are a common influence operating between social experiences, such as sexual activity, and deviant responses. On the other hand, however, Tangri and Schwartz (1967:187) found that, when relating delinquent evaluation to self-esteem, an adolescent's delinquent self concept was not related to a negative concept of self. Lanphier and Faulkner (1970) found that subjects with high self-esteem were more likely to be conventional in their behavior--there was less of a tendency for them to be delinquent.

Smoking and Drinking

H₃₅: There is a positive relationship between sexual activity and smoking cigarettes.

H₃₆: There is a positive relationship between sexual activity and alcohol consumption.

Smoking and drinking behavior are status offenses often engaged in by young people. Schofield (1965:175-176) found drinking and smoking behavior to be positively related to level of sexual experience. The more an adolescent, whether male or female, is engaged in these activities the greater the likelihood that they are involved in a sexual activity. Schofield did not look at these in combination; we would expect however, that adolescents engaged in both activities would be more experienced sexually than those who

only engaged in smoking or drinking.

Drug Usage and Availability

H₃₇: There is a positive relationship between sexual activity and drug use.

H₃₈: There is a positive relationship between sexual activity and drug availability.

A very large volume of literature has developed in recent years around the use of marijuana and drug usage from amphetamines to barbituates and heroin. The relationship of marijuana and drug use to sexual behavior has been explored using a variation of surveys and statistical analysis (Blum et al., 1969; Hochman, 1972; Johnson, 1973). The review to follow is only a sampling of the literature relating these factors. Causative factors leading from drug usage to sexual activity have not been established; however, much has been made of the correlation between marijuana, drug use, and sexuality. Since controversy exists about including marijuana with drugs such as amphetamines, barbituates, and heroin, this review will examine marijuana and other drugs separately in relation to sexual behavior.

Thomas et al. (1975) view drug use as being a sub-cultural phenomena not to be viewed as deviant. Using attitudes toward drug use, the legal system, sexual behavior, alienation, social class of origin, and drug use, they found that drug use is only one aspect of a more inclusive set of attitudes, values, and behavior. Social background factors were found to be weak predictors of drug use; the degree,

however, to which the individual accepted the tenets of her or his subculture was indicative of probable drug use.

Goode (1972a, 1972b) found marijuana smoking to be highly associated with sexual intercourse for college students. A causal sequence was not established, but it was postulated that drugs and sex are part of the campus subculture. In effect, students who practice one behavior practice another. Quite possibly values and orientation to life which are learned in the home are more indicative of liberal sex and drug habits rather than the reciprocal nature of sex and drugs.

Miller (1973) suggests that drugs may be used as a substitute for sexual intercourse in order to cope with anxiety around possible impotence, masturbatory activity, heterosexual conflict, and homosexual fantasy. When under the influence of marijuana, boys are not as uptight about being turned down; when females are stoned, they are less likely to reject an offer.

Greaves (1972) compared amphetamine users with non-users and found users generally to be more sexually experienced, but not significantly so. Evidence did not support the hypothesis that drug use was a replacement for sex or a contributing factor to sexual pathology. It was suggested that undetermined variables have a role in drug use and sexual activity.

The ability to obtain drugs is found to be related

to being able to use drugs (Hager, 1970:98). While adolescents may often purchase drugs from older people, they may also be purchasing from near same age adolescents. This is possibly related to a form of peer group involvement. Obtaining drugs then is seen as an act which is positively related to sexual activity because of its association with the act of taking drugs and general nonconformity to adult normative standards.

General Delinquent Acts

H₃₉: There is a positive relationship between sexual activity and general delinquent acts.

With trepidation we now are entering into a realm of behavior which is confusing in terminology. The word delinquent is interpreted in many different forms by authors. For instance, Vener et al. (1972) regard heavy petting, coitus, and coitus with two or more partners as delinquent activities, but later change these to nonconformity (Stewart et al., 1978). Beer and wine drinking, cigarette smoking, and joyriding are also listed as nonconforming behaviors.

Similarly, adolescent sexual behavior has been described as antisocial or maladjusted in the psychiatric literature (Hudgens, 1974). While Hudgens (1974:197) states that he rarely recommends that a teenager stops engaging in gratifying sexual behavior when not harming other people or putting self in danger, he does view sexual intercourse as a symptom of antisocial personality and sexual promiscuity or perversion as characteristic of an antisocial personality

(Hudgens, 1974:137). The contradictions here certainly warrant a much closer examination of sexual behavior as deviant, antisocial, or part of a negative identity (Erikson, 1968a).

Williams and Gold (1972) draw a distinction between delinquent behavior and official delinquency; that is, delinquent behavior is norm violating behavior which if detected could bring about legal action; official delinquency is the detection of delinquent behavior and action by the police and courts. They point out that while official delinquency is more often seen as a lower class phenomenon, delinquent behavior is not. Others have made the distinction between "hidden" and adjudicated delinquent acts (Porterfield, 1943; Murphy et al., 1946; Morwell, 1966). Murphy et al. (1946) found that of the 616 serious crimes reported by subjects, only 11 per cent were prosecuted; of the 4,400 minor offenses .006 per cent were prosecuted.

Jenkins (1955; 1957) has examined delinquency as being adaptive or maladaptive. Adaptive delinquency is seen as being goal orientated, that is, behavior involving motivation and learning from experience; maladaptive delinquency is seen as behavior precipitated by frustration that is rigid, stereotyped, and a reaction to punishment. Jenkins (1957:534-535) later refers to these categories as "socialized delinquent behavior" and "unsocialized

aggressive behavior." The differences are:

With socialized delinquency, we have a predatory minority subculture in which acquisitive desires for what is most easily achieved by theft may be reinforced by the prestige which attaches to successful delinquency--or the contempt, loss of status and social rejection which may attend a refusal to participate. We are dealing with planful, normally motivated, easily understandable behavior. With the unsocialized aggressive, on the other hand, we have a gross failure of conscience or inhibitions of any sort in a highly frustrated individual with a low frustration tolerance, unrestrained impulsiveness and bitter resentments and hostilities.

It appears that sexuality is a behavior that can be normal, deviant, delinquent, nonconforming, antisocial, pathological, and maladaptive. While sexuality could be any of the previously mentioned dimensions, most reports do not delineate normal sociosexual development from sexual behavior of a deviant or delinquent nature. Nevertheless sexual activity is viewed as being positively related to generally delinquent acts because of the association between nonconformity to adult normative standards and sexual activity. While general acts of delinquency may be qualitatively different from sexual activity, drinking and smoking, and drug availability, they are acts that do not conform to the adult normative and legal standards.

Summary of Nonconforming Behavior Hypotheses H₃₃ through H₃₉

There is a positive relationship between sexual activity and:

H₃₃: nonconforming behavior

H₃₄: delinquent self-image

- H₃₅: smoking cigarettes
- H₃₆: alcohol consumption
- H₃₇: drug use
- H₃₈: drug availability
- H₃₉: general delinquency

For the above hypotheses the following hypothesis was tested: There is a difference in the mean scores between the five levels of sexual activity.

Stress

Introduction

- H₄₀: There is a positive relationship between sexual activity and stress.

Stress is a composite measure of the variables involved in physical and emotional stress. Essentially stress is not feeling good about one's present life. Possible sources of stress are depression, affect deprivation, not feeling physically well, and some type of crisis in the family. It is thought that experiencing stress of some form will divert people to alternate sources of emotional gratification, one of which is sexual activity. Primarily we see stress as being positively related to sexual behavior because of the developmental aspects of stress occurring during adolescence and due to the reciprocal nature of stress and sexuality. After a presentation of the hypotheses on physical and emotional stress, a review will follow.

Physical Stress

Physical stress is divided into suicidal thoughts and behaviors, and physical well-being.

- H₄₁: There is a positive relationship between sexual activity and physical stress.
- H₄₂: There is a positive relationship between sexual activity and suicidal activity.
- H₄₃: There is a positive relationship between sexual activity and physical well-being.

Emotional Stress

Emotional stress is divided into family crisis, affect deprivation, depression, and rage.

- H₄₄: There is a positive relationship between sexual activity and emotional stress.
- H₄₅: There is a positive relationship between sexual activity and family crisis.
- H₄₆: There is a positive relationship between sexual activity and depression.
- H₄₇: There is a positive relationship between sexual activity and affect deprivation.
- H₄₈: There is a positive relationship between sexual activity and rage.

The most common types of stress derive from the tensions of every day life; they tend to arise between incompatible needs or goals of the person, and a decision needs to be taken in order to resolve the tension. There are also tensions that arise when a need is not met or an effort is frustrated, which call for further effort, change

of tactics or readjustment of goal (Moore, 1969:235). There are many studies done related to the strategies of coping with every day stresses: Leitch and Escalona (1949) have studied some of them in infants; Murphy (1962) and Moriarty (1961) in the same children at preschool age; Heider (1966) has analyzed the concept of vulnerability with reference to these variables. It is important to consider the background in which the individual grows up; some environments are stressful for the child, others help the child in making a satisfactory decision. If there is a lack of understanding or sympathy in the individual's environment, this can add to the indecision concerning his or her stresses and bring the individual to a breaking point (Moore, 1969:235). Erikson (1965) pointed out how important it is for a child to pass through every developmental step in a satisfactory way and he found that if a child fails to take a necessary step whole-heartedly, traces will remain of the earlier orientation and have bearing upon the maturation, leaving the child vulnerable to stresses. The adolescent of today lives in a period of time that seems increasingly more stressful. Not only do physical changes have to be coped with, but identity problems are emerging and the instability of the society does not help the adolescent in the search for a healthy and stable identity. Anxieties concerning the future seem to increase because of the relative insecurities of a future, compared with the securities of

yesteryear (Keniston, 1962; Sandler and Joffe, 1965). Matza (1964) focused on the status ambiguity generated by developmental discontinuities between the contradictory demands of autonomy and dependence in the areas of sexuality, peer relations, occupational orientation and Weltanschauung. Westley and Elkin (1957) minimized the anxieties associated with the discontinuous nature of adolescent socialization by emphasizing the maintenance of continuity between peer and adult social systems through anticipatory socialization. Although no individual will have exactly the same constitutional makeup and role relationship, all adolescents will go through a period of physical and mental changes and are therefore subject to some form of stress. It is thought that stress is positively related to sexual activity because experiencing some form of stress may lead people into a search for emotional and physical gratification, one of which is sexual activity.

Sexual promiscuity among girls is assessed for the extent that it communicates ungratified needs for affection and thus reflects underlying depression (Weiner, 1970:305). Toolan (1962) found that depressed adolescents seek intercourse not for erotic reasons but as a means of establishing intimate contact, and persistent depression may motivate repetitive indiscriminate sexual activity.

Palmgren (1966) suggests that the excitement and intense personal engagement of a sexual encounter is

appealing to an adolescent who desperately needs to combat feelings of apathy and enervation. Degree of depression or other psychological disturbances underlying premarital intercourse in adolescent girls are thought to be indicative of the extent to which they are sexually active.

It is impossible to separate the emotional, sexual and physical development of the adolescent and it is evident that social development intermingles heavily with all three. Physical changes during adolescence trigger emotional reactions and social mores add additional complications to maturation. Adjusting to physical maturation during adolescence is, indeed, one part adjusting to the physical change and nine parts adjusting to the emotional and social changes and the sexual implications they directly produce. Given the small amount of evidence relating stresses to sexual activity in a positive sense and the fact that stress may temporarily move one away from the family and community organizations, for they may well be the sources of stress, we think an overall positive relationship exists between stress and sexual activity. Physical stress is the sum of suicidal activity and physical well being. Emotional stress is the sum of family crisis, depression, affect deprivation, and rage.

Self-Regard

H₄₉: There is a positive relationship between sexual activity and self-regard.

Self-regard has played an important role in the

study of the behavior of an adolescent; it will tell much of how the adolescent will or will not initiate, seek out or be available for heterosexual interactions. The subject of self-regard has become increasingly popular in the last few decades and has been intensively investigated in psychiatry, psychology, and sociology. Self-regard has even become an every-day subject, because nothing seems to be more interesting to humans than the study of the self. This popularity may explain the obscurity of the term; many different names have been used such as self-image, self-esteem, self-concept, self-love, self-respect, self-acceptance, self-evaluation, and self-worth. All of these terms imply the psychological process of the evaluation of the self. In this study the term self-regard has been employed because it is the most neutral toned and carries the least amount of connotations (Wylie, 1961).

Zetterberg (1966) introduced the concept of erotic ranking which appears useful in analyzing the importance of self-regard on sexual behavior. Intermingled with the sociometric ranking and dating complex, there is a struggle for erotic success. The erotic ranking can be reflected in the individual's self-evaluation; a person who has a poor evaluation of self would predictably be anxious to improve his or her lot (Strouse, 1969). Ehrmann (1959) found in his study that upper-class boys more frequently and more easily engaged in premarital sexual relations with lower

class girls; and they, on the other hand, were more willing to yield intimacy to the higher status male. Thus, having a low self-regard, being "poor, powerless, and uneducated, having bottom positions in all other respect ... may turn to rewards offered by erotic ranking" (Zetterberg, 1966:135). Burchinal (1960) found indeed that if a lower-class girl is more insecure than a middle or upper-class girl, she is more likely to yield sexual intimacy to a male of higher self-regard, more likely to marry up in age and social class, and more likely to get pregnant and/or married while still in high school. Walster (1965) proposed also that persons with low self-regard may possess a special need for affection. Self-esteem theories emphasize that low self-regard persons would be more strongly attracted to an accepting partner than those higher in self-regard (Walster, 1965). Self-actualization theorists, including Fromm (1939), Maslow (1970) and Rogers (1959) contend that self-accepting, nondefensive individuals are more capable of loving others and experiencing satisfying and fulfilling interpersonal relationships (Dion and Dion, 1975:39).

DeMartino (1963:80) points out that any study in which data are obtained from volunteers will always have a preponderance of high self-regard (high dominance) people and therefore will show a falsely high percentage of non-virginity, masturbation, promiscuity, homosexuality in the population. DeMartino finds that it is much more likely for

high self regard women to have homosexual experiences or else conscious tendencies, desires and/or curiosity (DeMartino, 1963:90). Maslow (1942), Maslow et al., (1960), and DeMartino (1963) further report that when an insecure individual has a high dominance feeling, that person is likely to use sex as a weapon to conquer and dominate others.

It has been observed that sexual deviants are usually immature, feel as though they have little control over their destiny and have tremendous needs to bolster their self-regard (Pacht et al., 1962). The research seems to suggest that an individual with a low self-regard would be more inclined to be involved in indiscriminate or socially disapproved sexual activities than the more secure individuals. The results of the research have implied that a general feeling of low self-regard and/or a weak sex role identity are associated with a high level of sexual behavior. The hypothesis in this study is contrary to the above findings and postulates a positive relationship between self-regard and sexual activity because it is thought that being sexual with one's peers adds to one's status and self-confidence in the peer group.

Guilt

H₅₀: There is a positive relationship between sexual activity and guilt.

The influence between sex guilt and sexual behavior has generally been an inverse relationship which has explained the approach-avoidance models (Clark, 1952; Langston,

1973). In this model guilt as related to sex is seen as an inhibiting factor, although it is unclear whether the inhibition occurs between stimulation and arousal or between arousal and behavior (Galbraith and Mosher, 1968). While these are primarily experimental studies, it is important to note the negative relationship between sexual behavior and guilt.

In personality formation sexual guilt is acquired or learned in a series of situations related to sex and conscience development. This guilt may then influence the way in which situations are perceived or the reaction of an individual to specific situations. In a sense, guilt about sexual behavior is a self-mediated punishment for violating or for anticipating violating standards of proper conduct. The affective state of guilt is one of several potential referents within the individual signaling distress (Mosher and Cross, 1971).

Guilt as contrasted with shame is where the self is doing the judging as opposed to the latter where someone outside the self is giving disapproval (Lewis, 1971). In this study, specific measures of sex guilt (Mosher, 1961, 1966, 1968; Galbraith, 1969; Galbraith et al., 1968; and Galbraith and Mosher, 1968) are not used but rather a general index of feelings and behaviors which promote guilt. It is thought that guilt of a general nature or sex guilt specifically will have the same inverse relationship with

sexual behavior since both are an injunction against self for transgressing a normative standard.

Burgess et al. (1954:190) found that four per cent of the men and 16 per cent of the women with coital experience also experienced a sense of guilt. Christensen and Carpenter (1962:71) and Christensen and Gregg (1970:622) found premarital approval-experience ratios usually to be in a 10 per cent range for the 1968 sample of men, but ratios for females and 1958 males show more divergence between attitudes and behavior, with over two-thirds of the people mismatched in a few categories.

Reiss (1967:117) found that 83 per cent have the standard of accepting coitus of those who have had coitus while holding their present standard, while 15 per cent accept petting as their most extreme standard (Table 7.9). Reiss (1967:118) shows that individuals with a reported acceptance of premarital coitus still experience guilt with their coital behavior and with sexual behavior less than coitus. For people reporting a standard of premarital intercourse, 54 per cent felt guilty about petting. Quite possibly a gap exists between emotional and intellectual acceptance of a sexual standard and the standard might require more affection and/or commitment than the reported behavior entailed.

Therefore, not only is reported behavior not an accurate predictor of reported acceptance of behavior, but

also reported standards of acceptance do not exclude feelings of guilt. Single factor standards may not represent acceptance of premarital intercourse if absence of guilt feelings are required for complete personal acceptance (Banward, 1973:5). Given the available evidence concerning age of our sample and a measure of general guilt, we would expect guilt to be positively related to sexual activity.

Summary of Hypotheses for Stress

There is a positive relationship between sexual activity and:

- H₄₀: stress
- H₄₁: physical stress
- H₄₂: suicidal activity
- H₄₃: physical well being
- H₄₄: emotional stress
- H₄₅: family crisis
- H₄₆: depression
- H₄₇: affect deprivation
- H₄₈: rage
- H₄₉: self-regard
- H₅₀: guilt

For the above hypotheses the following hypothesis was tested: There is a difference in the means scores between the five levels of sexual activity.

CHAPTER III

METHODOLOGY

This chapter will describe the community from which the subjects were drawn, the method of data collection, index construction, and the design of the analysis. Appendix A describes in greater detail the construction of the indices and particularly the measurement of sexual behavior.

Community

The data presented in this study came from a 1973 follow-up cross-sectional study by a team of researchers on adolescent drug usage in three western Michigan communities done by a team of researchers in November-December, 1969. The 1973 follow-up data are from Community B which had the widest range of social economic status of the three communities originally studied. Communities A and C were not resurveyed because of issues involving confidentiality and uses of the data. The first data collection of Communities A, B, and C took place in 1969 and is described more fully in Hager (1970), Hager et al. (1971), and Vener et al. (1972).

Community B, which has a school district serving 25,000 residents, was resurveyed in March, 1973. Character-

istics of the people in this community include (1) about 40 per cent of the male wage earners are employed in white collar occupations, (2) 70 per cent of the males are high school graduates and 25 per cent have completed four years of college, and (3) 51 per cent of the respondents expect to attend college. Community B has one public junior and senior high school which is located less than five miles from the nearest SMSA (Standard Metropolitan Statistical Area) of 150,000 and about 20 miles from another SMSA of 360,000. The census figures reported for 1960 lists the median income as \$6,371 and compared with \$9,500 for 1969. Community B can be characterized as a common-man town made up of middle-class families. Most of the work is in skilled and semi-skilled jobs, with about 40 per cent classified as white collar workers.

Subjects and Data Collection

Pretested opinionnaires, similar to the November-December 1969 data collection, were group-administered in March 1973 by teachers during an extended homeroom period. Subjects did not have prior knowledge of the instrument nor its content. All students present on this day were asked to complete the opinionnaire (the opinionnaire is found in Appendix D) except for those whose parents had a standing objection to their children being used as subjects in social or psychological research. For this survey three students were excluded because of parental objection. Absentee rates were typical for this day and students and community were

aware that their names and location would not be revealed. All students attending the public junior and senior high school (grades 7-12), and who were present the day the survey was administered were asked to complete the instrument. Less than one per cent of the respondents' opinionnaires were excluded from data analysis because of incomplete answer sheets or response irregularities. The administration required an average of 70 minutes for the subjects. The number of subjects was 2,164 at 7th-12th grade level.

All answer sheets were screened for any visible gross irregularities which indicated questionable validity of the responses. Opinionnaires which showed a pattern of "set," were eliminated; for example, opinionnaires with designs on them, or only having one response answered. A count of missing data was made for all subjects per item in order to assess which additional cases to cut from the final data analysis. Table 3.1 depicts the frequency of missing data. It was decided to eliminate from the data analysis those subjects who had over thirty-one missing values. This comprised about one per cent of the sample.

The resulting sample size became 2,143 subjects. Since 37 per cent of the remaining 2,143 subjects had from one to twenty-nine missing values, a method needed to be devised for taking these missing data into account when computing the different indexes. Not taking missing data into account during the index construction would tend to produce index scores which are lower than would be obtained

TABLE 3.1--Number and Percentage of Missing Values for all Subjects

Number of Values Missing	Number of Opinionnaires with Missing Values	Percent	Cumulative Frequency %
0	1345	.622	62.2
1	454	.210	83.2
2	157	.073	90.5
3	56	.026	93.1
4	34	.016	94.7
5	17	.008	95.5
6 - 10	43	.020	97.5
11 - 15	14	.006	98.1
16 - 25	13	.006	98.6
26 - 30	6	.002	98.9
31 - 176	25	.010	100.0

N = 2164

if all questions were answered. This is discussed more fully in Appendix A.

Instrumentation

General Index Construction Technique

The instrument consisted of an opinionnaire made up by a series of questions, indexes, and control items originally used and developed for studies by Hager (1970) and Vener et al. (1972). The present study is concerned primarily with five types of information derived from the instrument: (1) measures of family structure, (2) assessment of several forms of bonding that affect the adolescent, (3) measures of orientation toward nonconforming behavior, (4) measures of stress, and (5) selected measures of religiosity, guilt, authoritarianism, college orientation,

and faith in people. Special indexes¹ for this study were constructed because few scales were available that would tap the information needed for testing the hypotheses of the study, and those scales which might have been useful were too lengthy and time-consuming for use with the range selected for the study. A decision had to be made whether to use longer scales and gain depth or use shorter indexes and gain breadth. Hirschi and Selvin (1968:211) saw the problem in these terms:

...if the social researcher were to use a small number of long scales, like the psychometrician, he would have to forego a large number of single items that he might otherwise study and this might well be more costly than the reduction in reliability.

The choice that was made for the present study represents a compromise between longer scales and the use of single items by utilizing a procedure of index construction, patterned after Waisanen and Durlak (1966:101-115), who list several assumptions underlying the use of this technique:

1. Several questions designed to measure a variable are better for the purpose than a single question.
2. The degree to which these questions correlate with one another provides some tentative evidence that there may be such a variable "at work in the social world."
3. The summed values of these inter-related items can function as the measurement of that variable.

¹The complete set of indexes and items comprising them are found in Appendix A.

4. The degree to which these measurements relate to other measurements--beyond the reasonable limits of chance--provides further basis for confidence that a variable has been identified and that it has some interpretative value.

The following indexes were constructed and a mnemonic abbreviation of up to seven characters was used for the computer program. The full name of the index and its mnemonic are found in Table 3.2. Specific items comprising each index are found in Appendix A.

Validity and Reliability of the Indexes

Validity

Face validity was the initial criterion for the construction and retention of index items. That is, only items that appeared to measure the desired dimension were included. Intensive interviews with over 50 students from ages 12-17 were employed as an aid in the qualitative evaluation and revision of the wording, understanding, and intended meaning of each item (Hager, 1970:69).

These students then assisted in the reorganization of some items, suggested alternate items and were instrumental in adjusting the time factor to a reasonable limit by helping to reduce the number of items from 300 in the first pretest (1970) to 190 in the final instrument. Only those items that elicited rich response data were included in the final instrument (Hager, 1970:69). Based on the findings of the first study (1970) and formulations for the second study the opinionnaire was reduced to 177 items.

Table 3.2--Glossary of Terms and Abbreviations.

ALCOHOL	ALCOHOL CONSUMPTION(ALCOHOL)
AFFECTD	AFFECT DEPRIVATION(AFFECTD)
AUTH	AUTHORITARIANISM(AUTH)
AVALD	DRUG AVAILABILITY(AVALD)
BONDING	FAMILY AND COMMUNITY BONDING(BONDING)
BONDS	CURVILINEAR FOR BONDING(BONDS)
BONDS6	PARCDC FAITH POLICEP SCHOOLP TEACHRP AUTH(BONDS6)
BONDS7	FAITH POLICEP SCHOOLP TEACHRP AUTH(BONDS7)
CB	COMMUNITY BONDING(CB)
CB5	FAITH POLICEP AUTH PARCDC SCHOOLP TEACHRP CLASSES(CB5)
CHURCHP	CHURCH PERCEPTION(CHURCHP)
CLASSES	SCHOOL CLASSES(CLASSES)
COLLO	COLLEGE ORIENTATION(COLLO)
DELBEH	NONCONFORMING BEHAVIOR(DELBEH OR NON(CBEH)
DELBEH5	DRUGS ALCOHOL GENDEL AVALD SMOKE DELSC(DELBEH5)
DELBEH6	DRUGS ALCOHOL GENDEL AVALD SMOKE(DELBEH6)
DELBEH7	DRUGS ALCOHOL GENDEL AVALD(DELBEH7)
DELBEHS	CURVILINEAR FOR NONCONFORMITY(DELBEHS)
DELSC	DELINQUENT SELF-IMAGE(DELSC)
DEPRESS	DEPRESSION(DEPRESS)
DRUGS	DRUG USAGE (DRUGS)
DSCFC6	DELINQUENT SELF CONCEPT AND FAMILY CONFLICT(DSCFC6)
DX31	FATHER SOME HIGH SCHOOL(DX31)
DX32	FATHER GRADUATED FROM HIGH SCHOOL(DX32)
DX33	FATHER SOME COLLEGE(DX33)
DX34	FATHER GRADUATED FROM COLLEGE(DX34)
DX35	ATTENDED GRADUATE SCHOOL(DX35)
DX41	CATHOLIC(DX41)
DX42	JEWISH(DX42)
DX43	PROTESTANT(DX43)
DX44	NO RELIGIOUS PREFERENCE(DX44)
DX51	NOT YET DATING(DX51)
DX52	NOT CURRENTLY DATING(DX52)
DX53	DATING, BUT NOT GOING STEADY(DX53)
DX54	GOING STEADY(DX54)
DX55	MARRIED OR ENGAGED(DX55)
DX61	NONE(DX61)
DX62	ONE(DX62)
DX63	TWO(DX63)
DX64	THREE(DX64)
DX65	FOUR OR MORE(DX65)
DX72	FIRST BORN(DX72)
DX73	SECOND BORN(DX73)
DX74	THIRD BORN(DX74)
DX75	FOURTH OR LATER BORN(DX75)
DX81	ONLY CHILD(DX81)
DX82	ONLY MALE CHILDREN(DX82)
DX83	ONLY FEMALE CHILDREN(DX83)
DX84	BOTH MALE AND FEMALE CHILDREN(DX84)
DX761	VALUES VOCATIONAL TRAINING(DX761)
DX762	VALUES EDUCATION AT SCHOOL(DX762)
DX763	VALUES SOCIAL LIFE AT SCHOOL(DX763)
DX764	VALUES LEAVING SCHOOL TO WORK(DX764)
DX1751	EXPECTS TO MARRY BEFORE TWENTY(DX1751)
DX1752	EXPECTS TO MARRY IN TWENTIES(DX1752)
DX1753	EXPECTS TO MARRY IN THIRTIES(DX1753)
DX1754	DOES NOT INTEND TO MARRY(DX1754)
DX1755	NOT SURE OF MARRIAGE(DX1755)
DX1761	AMBIGUOUS TOWARD MARRIAGE(DX1761)
DX1762	WANTS NO CHILDREN(DX1762)
DX1763	WANTS ONE CHILD(DX1763)
DX1764	WANTS TWO CHILDREN(DX1764)
DX1765	THREE OR MORE CHILDREN(DX1765)

Table 3.2--Glossary of Terms and Abbreviations
(Continued).

ESTRESS	EMOTIONAL STRESS(ESTRESS)
FAITH	FAITH IN PEOPLE(FAITH)
FAMILYC	FAMILY CRISIS(FAMILYC)
FB	FAMILY BONDING(FB)
FB7	PARCDC AND PARACC(FB7)
GENDEL	GENERAL DELINQUENCY(GENDEL)
GRP1	FIVE LEVELS OF SEXUAL ACTIVITY(GRP1)
GUILT	GUILT(GUILT)
MINSTRP	MINISTER PERCEPTION(MINSTRP)
MXSD	INTERACTION OF STRESS AND NONCONFORMITY(MXSD)
MXSS	INTERACTION OF DATING AND STRESS(MXSS)
MX1X5BD	INTERACTION OF AGE DATING BONDING & NONCONFORMITY(MX1X5BD)
MX1X5BS	INTERACTION OF AGE DATING BONDING & STRESS(MX1X5BS)
NONCBEH	NONCONFORMING BEHAVIOR(DELBH OR NONCBEH)
PARACC	PARENTAL ACCEPTANCE(PARACC)
PARCDC	PARENT CHILD COMMUNICATION(PARCDC)
PARCONG	PARENTAL CONGENIALITY(PARCONG)
PHYSWBR	PHYSICAL WELL BEING(PHYSWBR)
POLICEP	POLICE PERCEPTION(POLICEP)
PSTRESS	PHYSICAL STRESS(PSTRESS)
RAGE	RAGE(RAGE)
RELGITY	RELIGIOSITY(RELGITY)
REL5	CHURCHP AND RELGITY(REL5)
REL6	MINSTRP AND CHURCHP(REL6)
REL7	CHURCHP AND RELGITY(REL7)
SB	UNWEIGHTED MEASURE OF SEXUAL ACTIVITY(SB)
SB3	SB RECODED TO FIVE LEVELS OF SEXUAL ACTIVITY(SB3)
SCHOOLP	SCHOOL PERCEPTION(SCHOOLP)
SELFCOL	SELF AND COLLO(SELCOL)
SELCL6	SELF REGARD AND CLASSES(SELCL6)
SELFR	SELF REGARD(SELFR)
SMOKE	SMOKING CIGARETTES(SMOKE)
STRES	CURVILINEAR FOR STRESS(STRES)
STRESS	STRESS(STRESS)
STRESS5	SUICIDE RAGE DEPRESS AFFECTD GUILT(STRESS5)
STRESS6	RAGE DEPRESS AFFECTD SUICIDE GUILT(STRESS6)
STRESS7	PHYSWBR RAGE DEPRESS AFFECTD SUICIDE GUILT(STRESS7)
SUICIDE	SUICIDAL BEHAVIOR AND THOUGHTS(SUICIDE)
SXABC	PARTIALLY WEIGHTED MEASURE OF SEXUAL ACTIVITY(SXABC)
SXBEH	FULLY WEIGHTED MEASURE OF SEXUAL ACTIVITY(SXBEH)
SXBER	SXBEH RECODED TO FIVE LEVELS OF SEXUAL ACTIVITY(SXBER)
TEACHRP	TEACHER PERCEPTION(TEACHRP)
X1	AGE(X1)
X1S	CURVILINEAR FOR AGE(X1S)
X175624	MARRY IN TWENTIES AND HAVE THREE CHILDREN(X175624)
X175641	AMBIGUANCE TOWARD MARRIAGE(X175641)
X2	SEX(X2)
X4	RELIGION(X4)
X3	FATHER'S EDUCATION OR SOCIAL CLASS(X3)
X5	DATING(X5)
X5S	CURVILINEAR FOR DATING(X5S)
X6	NUMBER OF SIBLINGS(X6)
ZSB1	Z SCORE OF SB(ZSB1)
ZSXABC	Z SCORE OF SXABC(ZSXABC1)
ZSXBEH1	Z SCORE OF SXBEH(ZSXBEH1)

Content validity was concurrently established by subjecting each potential item from the 1970 opinionnaire to a panel of judges composed of three professional behavioral scientists, Hager, Vener, and Stewart. To be included in an index, all three judges had to agree that the item measured the dimension stated. In this manner five to ten potential items were constructed for each index desired.

The tentative indexes compiled in the above manner were then subjected to a pre-test composed of a non-random sample of 565 undergraduate students attending summer school at Michigan State University in 1969. This pre-test provided a quantitative check for the distribution of cases along a five-point response continuum from "strongly disagree" to "strongly agree." The discriminating power of each potential item was assessed and adjusted where possible to maximize the power of the item to discriminate among respondents. Low discriminating items were discarded. The pre-test also included opportunities for open-ended reactions from respondents. These comments were used to further modify and clarify some items, and served as a limited empirical assessment of the original validity judgments (Hager, 1970: 70).

Reliability

The final and most stringent reliability check was gained from the process of index correlation based on the consistency of responses by the 4, 230 students in the study.

of 1970. Cronbach's alpha was computed for each scale in the 1973 study using subprogram reliability from SPSS User's Guide Supplement (1976). Alpha is a widely used reliability coefficient.

The product-moment correlation of each item to the total sum of all potential items in each index was computed, resulting in item-total index correlations. The selection of an appropriate correlational criterion value is arbitrary, with no standardized limits. For purposes of this study, a standard was established that only those items showing a corrected item-total correlation between .20 and .80 were to be included in any index. This resulted in the rejection of some items even though they were statistically significant. The lower limit of .20 (thereafter called the "minimal criterion value") was established to insure the strength of each index. The upper limit of .80 was established because any item reaching such a high correlation with the total index is essentially measuring the same thing and inclusion of it would be redundant, and would increase the probability of a skewed distribution. This process of index correlation assures that the items in the index are measuring in the same direction along a dimension, and at the same time gives an indication of the strength of the index. Summary scales of bonding, stress, and nonconforming behavior used all items that were part of the individual scales and did not adhere to the above limits. The results of this process

are found in Table 3.3. Physical Well Being had the lowest alpha .53 and Sexual Behavior the highest .94. All scales in their between measures F were significant at the .001 level. Twenty-two of the scales had nonadditivity significance levels at .0001.

In conjunction with the above measures principal component factor analysis using varimax rotation was used to determine the patterning of variables for data reduction and for the construction of indices. A description of the factor analysis is found in Appendix A.

Summary of Validity and Reliability

The validity of the opinionnaire rested upon four methods of insuring that the instrument measured what it purported to measure. First, the items were constructed or selected on the basis of face validity. That is, did the item appear to measure the dimension desired? Pre-test and depth interviews with students assisted in this process. Secondly, content validity was established by competent professional behavioral scientists who had to agree that the item measured the factor considered. Thirdly, principal component factor analysis using varimax rotation was used to insure the indexes loaded as factors. The fourth validity check consisted of subjecting all items to the process of item-total index correlation, which required all items in an index to measure along the same dimension.

Criteria for including a variable in an index are (1)

TABLE 3.3--RELIABILITY COEFFICIENTS AND F VALUES FOR COMPUTED INDEXES.

INDEXES		ALPHA	F FOR BETWEEN MEASURES	F FOR NONADDITIVITY
SB	UNWEIGHTED MEASURE OF SEXUAL ACTIVITY(SB)	.94	1745	761
BONDING	FAMILY AND COMMUNITY BONDING(BONDING)	.93	318	42
FB	FAMILY BONDING(FB)	.91	349	92
PARCDC	PARENT CHILD COMMUNICATION(PARCDC)	.83	213	63
PARACC	PARENTAL ACCEPTANCE(PARACC)	.83	405	45
PARCONG	PARENTAL CONGENIALITY(PARCONG)	.91	102	LT1
CB	COMMUNITY BONDING(CB)	.90	291	173
POLICEP	POLICE PERCEPTION(POLICEP)	.75	366	LT1
CHURCHP	CHURCH PERCEPTION(CHURCHP)	.78	33	3
MINSTRP	MINISTER PERCEPTION(MINSTRP)	.71	58	9
SCHOOLP	SCHOOL PERCEPTION(SCHOOLP)	.67	340	LT1
TEACHRP	TEACHER PERCEPTION(TEACHRP)	.75	128	14
RELGITY	RELIGIOSITY(RELGITY)	.86	156	56
AUTH	AUTHORITARIANISM(AUTH)	.70	371	39
FAITH	FAITH IN PEOPLE(FAITH)	.54	767	109
COLLO	COLLEGE ORIENTATION(COLLO)	.76	314	3
NONCBEN	NONCONFORMING BEHAVIOR(DELBEN OR NONCBEN)	.85	857	29
SMOKE	SMOKING CIGARETTES(SMOKE)	.87	1189	61
ALCOHOL	ALCOHOL CONSUMPTION(ALCOHOL)	.77	195	90
DRUGS	DRUG USAGE (DRUGS)	.84	401	1827
AVALD	DRUG AVAILABILITY(AVALD)	.93	632	139
GENDEL	GENERAL DELINQUENCY(GENDEL)	.81	390	1009
STRESS	STRESS(STRESS)	.85	857	29
PSTRESS	PHYSICAL STRESS(PSTRESS)	.52	1177	45
SUICIDE	SUICIDAL BEHAVIOR AND THOUGHTS(SUICIDE)	.73	301	700
PHYSWBR	PHYSICAL WELL BEING(PHYSWBR)	.53	819	122
ESTRESS	EMOTIONAL STRESS(ESTRESS)	.84	794	156
FAMILYC	FAMILY CRISIS(FAMILYC)	.72	33	132
DEPRESS	DEPRESSION(DEPRESS)	.77	212	LT1
AFFECTD	AFFECT DEPRIVATION(AFFECTD)	.72	270	3
RAGE	RAGE(RAGE)	.77	585	29
SELFPR	SELF REGARD(SELFPR)	.68	247	14
GUILT	GUILT(GUILT)	.66	297	LT1

LT1=LESS THAN ONE

the item has a corrected item-total correlation between .20 and .80, or (2) a factor loading of at least .30 on the variable associated with that factor, or (3) the variable has conceptual relevance or practical relevance in the construction of the index. In most cases all three criteria apply; where deviations occur they are explained in Appendix A.

Variables

The variables used in this study fell into four broad categories of family structure, bonding, stress, non-conforming behavior and the dependent variable, heterosexual behavior.

Procedures employed to ready the variables for data analysis were as follows. Nominal variables were dichotomized for correlation and regression procedures. Variables construed as indexes were used as both continuous variables, or were broken into categories of one through five, the same cut offs were used for all indexes, for analysis of variance and categorical analysis. Sexual behavior was similarly used as a categorical and as a continuous variable. For the categorical variable the five categories of (1) no sexual activity, (2) kissing and hugging, (3) light and heavy petting, (4) intercourse with one partner, and (5) intercourse with two or more partners were formed to indicate the highest level of sexual activity engaged in by the adolescent. The process for arriving at these five categories is discussed in Appendix A.

As described earlier, cases with more than thirty-one missing values were deleted from the file. On most procedures the default option handling missing data was employed. This is listwise deletion which eliminated a case from the analysis if there are any missing values. This usually results in a larger shrinkage of cases than pairwise deletion, however, it has the distinct advantage of having the same number of cases for all statistics in a given procedure.

Design of the Analysis

The choice of proper data analysis techniques is governed by time, money, and level of conceptual understanding of the statistical techniques to be used, as well as the appropriateness of the techniques in relation to the data. The purposes of the present study are best met by the use of a variety of statistical tests: chi-square contingency procedures, correlational analysis (zero-order and partials), T-Tests, analysis of variance, factor analysis, Guttman Scale Analysis, multiple regression, and multiple discriminant analysis. These techniques provide measures of statistical significance, strength of association, between and within group variance, variance accounted for, contrasts between groups and the grouping of individuals from predictor variables. All of these procedures are essential to a full analysis of the data. The .01 level will be the level of rejection for all hypotheses.

Contingency analysis will be used for testing relationships between five levels of sexual conformity and the independent variables. Chi-square procedures will be used as a test of the existence of association.

The one-way analysis of variance is a parametric statistic which tests whether the independent samples have come from the same or different populations. Assumptions underlying the "F" ratio and all other interval statistics are (1) scores were sampled at random, (2) samples were from normal populations, (3) homogeneity of variance (homoscedasticity), (4) different samples were independent, (5) an interval level of measurement has been obtained, and (6) the hypotheses imposed for testing were true.

If the F ratio is large then we shall conclude that one of the above is false. Assumptions 1, 4, and 5 are most often met and recognized. Inferences based on the F statistic are not seriously distorted by violations of assumptions 2 and 3 (normality and homoscedasticity) (Box and Watson, 1962; Norton, 1952:252; Namboodiri et al., 1975: 88-89). Therefore, most of the distortion of the F statistic will ordinarily be produced by the false hypotheses. When F is large we are usually safe in rejecting the hypotheses which we are testing.

Phillips (1966:269) has stated that:

Statistical assumptions must not be turned into prohibitions against particular kinds of experiments...these assumptions should be borne in mind...in matching the particular experimental situation with appropriate forms of analysis.

In this data analysis, statistical conclusions were not based solely on a significant "F." The "F" examined the relationship between the five levels of sexual conformity. The "F" ratio provides an overall measure of the data set and as Hays (1963) has indicated a significant "F" is a signal for further analysis.

Zero-order correlation was used for initial tests of the direction and magnitude of hypotheses. This gave us a measure of whether a hypothesis was in the predicted direction--positive or negative and the strength of the relationship.

Multiple and partial correlation along with regression analysis were used to measure associations between the independent variables and the dependent variable in order to control for the relationship between the independent variables. Controlling for the effects of the independent variables is necessary for a reduction of the number of independent variables in the regression model.

The purpose of the regression analysis is to predict adolescent sexual behavior from the variables of family structure, bonding, stress, and nonconforming behavior. Generally it is desirable to examine several predictor variables simultaneously in light of the consideration that their joint effect will provide a more accurate prediction of the criterion variable. This strategy provides statistical control for confounding factors.

The most important uses of the technique as a descriptive tool are: (a) to find the best linear prediction equation and to evaluate its accuracy; (b) to control for confounding factors in order to evaluate the contribution of a specific variable or set of variables; and (c) to find structural relations and provide explanation for seemingly multivariate relationships, such as is done in path analysis.

Discriminant analysis, an elaboration of regression analysis, was the method used to assess how accurately the independent variables predicted the five levels of the dependent variable.

Discriminant analysis was used as a method for discriminating between the five levels of sexual behavior. The discriminating variables are the independent variables used in this study. The mathematical objective of discriminant analysis is to weight and linearly combine the discriminating variables in order for the groups to be as statistically distinct as possible. Put another way, we are seeking the best linear combination of variables that will maximize the differences between the groups relative to the differences within the groups. This is essentially an analysis of variance way of thinking or regression if only two groups are involved. Assumptions regarding the discriminating variables are that they are a multivariate normal distribution and equal variance-covariance matrices within each group. Generally the technique is very robust and minor violations of the assumptions do not seriously dis-

tort the results. A more complete description of regression and discriminant analysis can be found in Appendix C. The method of analysis will proceed through the following steps:

1. Contingency analysis, chi-square will examine the association between all the independent variables and the five levels of sexual conformity.
2. One-way analysis of variance will be used with the resulting F to indicate differences in the association between the dependent variables and the independent variable (five levels of sexual conformity).
3. T-Tests will be used as contrasts with the one-way ANOVA to determine where the differences lie. An analysis of the contrasts will give us comparisons of the differences between the different levels of sexual conformity for males and females.
4. Correlation analysis will give direction and strength of relationships for zero-order and partial correlations.
5. Multiple regression will examine the predictive power of the independent variables in relation to sexual behavior. The F statistic will be used as a measure of a significant contribution to the regression.
6. Multiple discriminant analysis will examine the independent variables as predictions of the five levels of sexual behavior.

The data analysis will examine all subjects together and males and females separately in order to examine the separate and combined effects of sex. The .01 level of significance will be the level needed for acceptance of the hypothesis. If three tests are done then the hypothesis must be in the stated direction and significant on two of the three tests. If two tests are done then the hypothesis must be significant on one of the two. If one test is done then the hypothesis must be significant on that test.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

The analysis of the data will be presented in three parts. The first part is a set of contingency tables on age, sex, and level of sexual activity. In Appendix B the reader may find a continuation of this analysis for all variables giving the mean, standard deviation, Wilks' Lambda U Statistic for a test between means, and correlation matrices. From these presentations it is hoped that the reader will become familiar with the basic data set, especially where similarities and differences exist. Secondly, we will test the individual hypotheses using chi-square, correlation analysis, and one-way analysis of variance. For acceptance the hypothesis must be significant at the .01 level on two of the three above mentioned statistics or significant on one of two tests, and always in the stated direction. Finally all variables and their subsets will be used to examine their impact on sexual behavior from a multivariate approach. Statistics to be employed at this level of analysis will be multiple regression and discriminant procedures.

Contingency Analysis

The relationship between age, sex, and level of sexual activity is presented in Table 4.1. The chi-square for all subjects and males and females separately is significant at the .0001 level.

TABLE 4.1--SEXUAL ACTIVITY LEVEL OF MALES AND FEMALES BY AGE (PERCENTAGE)

		AGE													
SEXUAL ACTI- VITY LEVEL		12		13		14		15		16		17		N=M	N=F
SEX		M	F	M	F	M	F	M	F	M	F	M	F		
NO SEX		31	14	17	14	10	10	4	8	8	6	8	.5	110	96
KISS & HUG		31	48	21	38	30	31	23	22	21	17	13	13	250	303
PETTING		19	29	33	39	29	44	37	47	33	48	45	52	325	499
COITUS ONE P		9	9	12	6	16	10	16	12	15	17	11	21	137	138
COITUS MUL P		10	3	17	4	15	6	21	11	23	13	23	14	189	96
N=M AND F		80	104	180	218	218	217	190	218	171	190	172	185	1011	1132

F=FEMALES															
M=MALES															
N=NUMBER															
P=PARTNER(S)															

From an inspection of table 4.1 we can see that as age increases, sexual behavior increases for both males and females. This is most accurately reflected in the statistic gamma (G) which is the number of concordant pairs (P) minus the number of discordant pairs (Q) divided by the total number of united pairs (P+Q). Concordance exists when the ordering of a pair of cases on the first variable is the same as their ordering on the second variable. If the ordering is reversed, this constitutes a discordant pair. Thus, gamma is positive if concordant pairs

predominate and negative if discordant pairs prevail. A value of zero means they are equal. Also the value of gamma can be taken as the probability of correctly guessing the order of a pair of cases on one variable once the ordering of the other variable is known (Nie et al., 1975:225-229). The gamma for males is .20 and females .38. The zero-order G is .28 and partial G .29. From this we can conclude that as age increases, so does sexual behavior and that increase is stronger for females.

Examining the percentages by rows for males and females we observe that males report not engaging in sexual activity (level one) more often than females except for ages fourteen and fifteen. For kissing and hugging (level two) females report more often this being their highest level of sexual activity at earlier ages. Males consistently report petting (level three) as their highest level of sexual activity. For intercourse with one partner (level four) females at ages sixteen and seventeen are represented more often than males. Finally having intercourse with two or more partners (level five) males are consistently higher than females. Thus males and females differ in that males more often have not engaged in any sexual activity or have had intercourse with two or more partners or have petted. Females at younger ages more often kiss than males; females at older ages will have had intercourse with one partner.

Summary

The relationships between age, sex, and sexual activity are highly consistent--as age increases sexual behavior increases for both males and females. The relationship is stronger for females than for males. Our next task is to begin the testing of individual hypotheses and their relationship to sexual behavior.

Test of Bivariate Hypotheses

The relationship of the independent variables to sexual activity level follows. Table 4.2 presents the one-way analysis of variance (D.F.=4) which examines the differences between the five levels of sexual activity, the zero-order correlations, which examine the strength and direction of relationships among the variables, and the chi-square analysis which examines the relationship between the five levels of sexual activity and the independent variables for all subjects, and males and females separately. Table 4.3 provides ten a posteriori contrasts (Kirk, 1968:86-97) between all combinations of the five levels of sexual conformity.

We will now move on to the test of the hypotheses for the four classes of variables--family and structural variables, bonding, nonconforming behavior, and stress.

Family and Structural Variables

Except in one case all hypotheses in this section are accepted for males or females. For same and opposite

TABLE 4.2--TEST OF BIVARIATE HYPOTHESES FOR ALL SUBJECTS, MALES, AND FEMALES.

HYPOTHESES NUMBER AND DIRECTIONAL PREDICTION	ONEWAY ANOVA F VALUES			ZERO ORDER CORRELATIONS			CHI SQUARE ANALYSIS			HYPOTHE- SIS ACCEPTED BY SEX
	ALL	M	F	ALL	M	F	ALL	M	F	
FAMILY AND STRUCTURAL VARIABLES										
- 0 +	FATHER'S EDUCATION (SOCIAL CLASS)			- .10	-.07	-.13	.000	.000	.000	YES
M 1:	RELIGIOUS PREFERENCE						.000	.000	.000	YES
M 2:	NO BELIEF IN GOD			.12	.14	.08	.000	.000	.000	YES
M 3:	PROB A LARGE FAMILY			.06	.05	.03	.000	.000	.000	YES
M 4:	SAME OR OPPOSITE SEX SIBLINGS						.726			NO
M 5:	FIRST BORN									YES
M 6:	LATER BORN			-.08	-.12	-.05	.000	.000	.000	YES
M 7:	DATING BEHAVIOR			.05	.07	.04	.000	.000	.000	YES
M 8:	EXPECTING TO MARRY AT AN EARLY AGE			.19	.17	.21	.000	.000	.000	YES
M 9:	DESIRING TO HAVE A LARGE FAMILY			.02	.10	.10	.000	.000	.000	YES
M 10:	MARRY EARLY AND HAVE A LARGE FAMILY			.12	.18	.19	.000	.000	.000	YES
M 11:	VALUES VOCATIONAL TRAINING			-.23	-.23	-.19	.000	.000	.000	YES
M 12:	VALUES EDUCATION AT SCHOOL			-.17	-.20	-.11	.000	.000	.000	YES
M 13:	VALUES SOCIAL LIFE AT SCHOOL			.17	.20	.11	.000	.000	.000	YES
M 14:	PREFERS TO LEAVE SCHOOL AND WORK			.18	.15	.21	.000	.000	.000	YES
BONDING VARIABLES										
- - -	BONDING (BONDING)	1	20	-.23	.34	-.21	.000	.000	.000	YES
M 15:	FAMILY BONDS (FAMILY BONDING)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 16:	CHILD COMMUNICATION (PARCOC)	2	10	-.23	.34	-.21	.000	.000	.000	YES
M 17:	PARENTAL CONTROL (PARCOC)	2	10	-.23	.34	-.21	.000	.000	.000	YES
M 18:	COMMUNITY INVOLVEMENT (CIC)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 19:	POLICE PERCEPTION (POLICEP)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 20:	CHURCH PERCEPTION (CHURCHP)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 21:	MILITARY PERCEPTION (MILSTR)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 22:	SCHOOL PERCEPTION (SCHOOLP)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 23:	TEACHER PERCEPTION (TEACHERP)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 24:	PELAGOSITY (PELAGITY)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 25:	AUTHORITY (AUTHORITY)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 26:	FAITH IN PEOPLE (FAITH)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 27:	FAITH IN GOD (FAITHG)	1	10	-.23	.34	-.21	.000	.000	.000	YES
M 28:	SCHOOL CLASSES (CLASSES)	2	20	-.23	.34	-.21	.000	.000	.000	YES
NONCONFORMITY VARIABLES										
- + +	NONCONFORMING BEHAVIOR (NONGBH)	1	10	.31	.40	.44	.000	.000	.000	YES
M 29:	DELINQUENT SELF-IMAGE (DELSC)	1	10	.31	.40	.44	.000	.000	.000	YES
M 30:	SMOKING CIGARETTES (SPOKE)	1	10	.31	.40	.44	.000	.000	.000	YES
M 31:	ALCOHOL CONSUMPTION (ALCOMOL)	1	10	.31	.40	.44	.000	.000	.000	YES
M 32:	DRUG USAGE (DRUGS)	1	10	.31	.40	.44	.000	.000	.000	YES
M 33:	DRUG AVAILABILITY (AVAD)	1	10	.31	.40	.44	.000	.000	.000	YES
M 34:	GENERAL DELINQUENCY (GENDEL)	1	10	.31	.40	.44	.000	.000	.000	YES
STRESS VARIABLES										
- + +	STRESS (STRESS)	1	10	.31	.40	.44	.000	.000	.000	YES
M 35:	PHYSICAL ACTIVITY (PHYSACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 36:	SOCIAL ACTIVITY (SOCIALACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 37:	EMOTIONAL ACTIVITY (EMOACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 38:	PHYSIOLOGICAL ACTIVITY (PHYSACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 39:	EMOTIONAL ACTIVITY (EMOACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 40:	PHYSIOLOGICAL ACTIVITY (PHYSACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 41:	EMOTIONAL ACTIVITY (EMOACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 42:	PHYSIOLOGICAL ACTIVITY (PHYSACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 43:	EMOTIONAL ACTIVITY (EMOACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 44:	PHYSIOLOGICAL ACTIVITY (PHYSACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 45:	EMOTIONAL ACTIVITY (EMOACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 46:	PHYSIOLOGICAL ACTIVITY (PHYSACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 47:	EMOTIONAL ACTIVITY (EMOACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 48:	PHYSIOLOGICAL ACTIVITY (PHYSACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 49:	EMOTIONAL ACTIVITY (EMOACT)	1	10	.31	.40	.44	.000	.000	.000	YES
M 50:	PHYSIOLOGICAL ACTIVITY (PHYSACT)	1	10	.31	.40	.44	.000	.000	.000	YES

FGE \$ P=.001
FGE \$ P=.01
A-ALL SUBJECTS M-MALES F-FEMALES

sex siblings (H5) no differences were found between the levels of sexual activity. The last two columns of Table 4.2 present whether the hypothesis was accepted and for which groups (A = All subjects; F = females; M = males).

Some qualifications for acceptance by sex are that females from large families (H4) and females who were first (H6) or later (H7) born were not significant at the .01 level. Also females desiring a large family (H13) were not significant and females who valued the educational aspects of school (H15E) were not significant.

Bonding

All hypotheses are accepted except for religiosity (H28) among females. The relationship between community bonding and sexual activity is stronger than for family bonding.

Nonconformity

All hypotheses for nonconformity are accepted without qualification.

Stress

Except for physical well being (H43) and depression (H46) among males all hypotheses are accepted. The correlations between physical and emotional stress and sexual activity are similar.

The ten a posteriori contrasts for the five levels of sexual behavior are found in Table 4.3. These contrasts are used in conjunction with the oneway analysis of variance

TABLE 4.3--TEN CONTRASTS FOR THE ONEWAY ANOVA COMPARING MALES
AND FEMALES ON THE FIVE LEVELS OF SEXUAL ACTIVITY

THE CONTRAST GROUPS FOR THE FIVE LEVELS OF SEXUAL ACTIVITY

	1-2	1-3	1-4	1-5	2-3	2-4	2-5	3-4	3-5	4-5
BONDING	NS	MF	MF	MF	MF	MF	MF	F	MF	M
FB	NS	MF	MF	MF	MF	MF	MF	F	MF	M
PARCDC	NS	MF	MF	MF	MF	MF	MF	NS	M	NS
PARACC	NS	M	MF	NS	MF	MF	NS	NS	M	M
PARCONG	NS	NS	F	MF	F	MF	MF	NS	M	M
CB	NS	MF	MF	MF	MF	MF	MF	M	MF	M
POLICEP	NS	MF	MF	MF	MF	MF	MF	NS	M	M
CHURCHP	NS	F	MF	MF	MF	MF	MF	NS	MF	MF
MINSTRP	NS	NS	NS	MF	M	M	MF	NS	M	NS
SCHOOLP	NS	NS	MF	MF	M	MF	MF	F	MF	NS
TEACHRP	NS	MF	MF	MF	MF	MF	MF	M	M	NS
RELGITY	NS	M	MF	M	M	MF	M	NS	M	M
AUTH	NS	MF	MF	MF	MF	MF	MF	NS	M	M
FAITH	NS	NS	F	NS	NS	F	F	F	NS	NS
COLLO	NS	NS	F	MF	NS	MF	MF	MF	MF	M
CLASSES	NS	NS	M	M	F	MF	MF	NS	M	M
DELBEH	F	MF	MF	MF	MF	MF	MF	MF	MF	M
DELSC	NS	M	M	MF	NS	MF	MF	NS	MF	NS
SMOKE	F	MF	MF	MF	MF	MF	MF	MF	MF	M
ALCOHOL	F	MF	MF	MF	MF	MF	MF	MF	MF	M
DRUGS	F	MF	MF	MF	MF	MF	MF	MF	MF	M
AVALD	F	MF	MF	MF	MF	MF	MF	MF	MF	NS
GENDEL	M	MF	MF	MF	MF	MF	MF	MF	MF	MF
STRESS	NS	F	MF	MF	F	MF	MF	F	MF	M
PSTRESS	NS	NS	F	MF	F	MF	MF	F	MF	M
SUICIDE	NS	F	F	MF	F	MF	MF	F	MF	M
PHYSWBH	NS	NS	NS	MF	NS	NS	F	NS	F	NS
ESTRESS	NS	MF	MF	MF	F	MF	MF	F	MF	NS
FAMILYC	NS	NS	MF	M	NS	MF	MF	F	M	NS
DEPRESS	NS	NS	F	F	NS	F	MF	F	F	NS
AFFECTD	NS	MF	MF	MF	F	F	F	NS	F	NS
RAGE	NS	M	MF	MF	NS	MF	MF	MF	MF	NS
SELFR	F	MF	MF	M	MF	M	M	NS	F	NS
GUILT	NS	NS	NS	F	NS	NS	F	NS	NS	NS

ABBREVIATIONS M=MALES F=FEMALES MF=MALES AND FEMALES

NS=NOT SIGNIFICANT

and provide information as to where there are significant differences. For instance, on parental congeniality (H21) we find that for contrasts 1-2 and contrasts 1-3 the mean differences for parental congeniality are not significant (NS). For contrast 1-4 there are significant differences of at least .01 for females (F) but not for males. On contrast 1-5 both males and females have significant differences between groups one and five; this should not be interpreted to mean that significant differences exist between males and females. Finally for contrast 3-5 on this same variable males (M) are significantly different between groups three and five but females are not significantly different at the .01 level.

Summary

This concludes the hypotheses testing of the bivariate relationships with sexual activity. The hypothesis regarding same and opposite sex siblings was not accepted. Not finding religiosity significant for females was an unexpected result. We will now move on to the multivariate analysis where the colinear effects will be taken into account.

Multivariate Analysis

Discriminant Analysis

The hypothesis "dating will have greater discriminating power than any other variable" has been tested through the use of multiple discriminant analysis. The

analysis proceeded in a fashion partially described by Shanathanan (1975) and partially decided upon by the author whereby six steps were carried out for all subjects together and males and females separately. That procedure is:

1. A multiple discriminant analysis (MDA) of all variables entered at once to see the full effect of their discriminating power.
2. A stepwise MDA and include variables until the F to enter drops below 1.0.
3. A second stepwise MDA using those variables which did not enter in the above analysis.
4. A factor analysis of the variables retained in the first two MDA, but keep dating separate regardless of how it factors.
5. A MDA on the resulting factors and including curvilinear and interaction terms at this juncture.
6. A comparison of step one to step five in order to find the difference in classification power using both methods of analysis.

This method has helped to achieve parsimony by excluding those variables that contributed little to the discrimination process. Information from the initial direct method, step one, provided an estimate of how much classification power all of the variables had when entered at once. A limitation of the direct method is that it does not provide classification functions along with the discriminant

functions as is provided in the MDA using a stepwise procedure. A comparison between the classification power found in step one as compared to step five gives us an estimate of the change taking place as the variable set is reduced.

Direct Method

Table 4.4 presents the discriminant function coefficients and group centroids for all subjects taken together and for males and females separately. The salient features for all subjects are that three functions are significant with dating (X5) alcohol, general delinquency, availability of drugs, and smoking being the most important variables contributing to function one. These variables are the best classifiers for membership in groups three to five (groups are equivalent to levels of sexual activity) as heavy petters and intercourse with one or multiple partners. Each variable had a positive loading as did the centroids for groups 3, 4, and 5. On function one it was found that being first born (DX72) had the highest negative loading of $-.126$ thus being predictive of membership in groups one or two--no sex or kissing and hugging. When moving from function to function, the picture becomes less clear because less variance is accounted for as can be seen in functions two and three.

The first function may be compared similarly to a factor in factor analysis under which circumstances positive loadings indicate a form of peer activity which involves

trying out adult roles. The highest negative loadings were for first born and those who are ambivalent toward marriage.

On function two dating (X5) again loaded in a strong positive direction along with smaller loadings (above .10) on sex (X2), church perception, depression, availability of drugs, college orientation, valuing educational and school activities (DX762), and those valuing social life plus some school work to get by (DX763). These variables were predictive of membership in petting primarily and to a small degree intercourse with one partner--groups three and four. Factors predictive of membership in groups one, two, and five had negative loadings on function two. The highest loading was on drugs and general delinquency with both being predictive of membership in group five along with suicide. Low social class (DX31) was clearly predictive of membership in group five. This was ascertained by examining the fluctuation of the means in Table B.5 in Appendix B. Variables most predictive of membership in groups one and two were police perception, authoritarianism, middle class (DX32) or upper class (DX34), being first born (DX72) or an only child (DX81), and not knowing if one is getting married or having kids (DX1761). Variables on function two, which did not clearly predict membership in either group one or five, are religion (X4) and being from the upper middle class (DX33). They appeared to be more predictive of membership in group five, but their bi-modal distribution made this

uncertain. Function three, our least significant (.003) discriminant function for all subjects, had negative loadings on variables predicting membership in groups two and particularly four. The variables of parental congeniality, church and teacher perception, social class (DX32 and DX33), and being first born (DX72) were predictive of membership in group two--kissing and hugging. Variables most predictive of membership in group four, intercourse with one partner, were drugs, family conflict, rage, availability of drugs, low social class (DX31), being later born (DX74), marrying before 20 (DX1751), and desiring a medium to big family (DX1763 and DX1764). General delinquency, alcohol, and physical well being had the highest positive loadings on function three which were reflective of membership in group five, more than one intercourse partner, whereas parent child communication, faith, school classes, and college orientation were reflective of membership in group three.

The most salient findings of these three discriminant functions for all subjects were that dating and general delinquency were the most prominent variables predicting membership at levels 3, 4, or 5 on function one, but neither achieved their highest loading on function one; the highest negative loadings were for being first born and being ambivalent toward marriage. Of the variance accounted for (sum of the canonical correlations squared) by all three functions (69 per cent), function one accounts for 81 per cent

of the explained variance.

Dating loaded the highest on function two, and was most predictive of sexual activity at levels three and four. The same is true for drugs; it also had a negative loading but it was found to be predictive of sexual activity at level five. Function two accounted for 14 per cent of the total variance accounted for by all the functions. Finally, on function three rage, low social class (DX31) and marrying before age 20 (DX1751) were most predictive of membership at level four--intercourse with one partner. Loadings were also higher for these variables than they were on any of the other functions. General delinquency and parent-child communication were predictive of being in level three or five and again these variables achieved their highest loadings. Function three however accounted for only three per cent of the total variance although significant (.003).

Table 4.5 depicts the percentage of cases which are correctly classified. Overall this is 51.3 per cent. One should take notice of the monotonic relationship of the groupings off the diagonal. The best predictions were for group one and five (68 and 60 per cent respectively) with groups two and three being in the high forties and group four the lowest (42 per cent). The percentage of cases classified is probably somewhat inflated since no attempt was made to crossvalidate in this study.

Salient features of the differences between males and females on the first discriminant direct runs, using all

Table 4.5--Percent of Cases Correctly Classified for All Subjects, and for Males, and Females (Direct Method).

ACTUAL GROUP		NO. OF CASES	ALL				
			PREDICTED GP. 1	GROUP MEMBERSHIP GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1		203.	137. 67.5%	57. 28.1%	2. 1.0%	3. 1.5%	4. 2.0%
GROUP 2		543.	161. 29.7%	263. 48.4%	95. 17.5%	15. 2.8%	9. 1.7%
GROUP 3		811.	45. 5.5%	140. 17.3%	397. 49.0%	129. 15.9%	100. 12.3%
GROUP 4		271.	15. 5.5%	23. 8.5%	54. 19.9%	114. 42.1%	65. 24.0%
GROUP 5		283.	4. 1.4%	18. 6.4%	37. 13.1%	53. 18.7%	171. 60.4%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 51.26%

Males

ACTUAL GROUP		NO. OF CASES	GROUP MEMBERSHIP				
			PREDICTED GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1		108.	74. 68.5%	25. 23.1%	2. 1.9%	4. 3.7%	3. 2.8%
GROUP 2		248.	78. 31.5%	119. 48.0%	44. 17.7%	5. 2.0%	2. .8%
GROUP 3		318.	24. 7.5%	57. 17.9%	151. 47.5%	55. 17.3%	31. 9.7%
GROUP 4		135.	5. 3.7%	12. 8.9%	29. 21.5%	57. 42.2%	32. 23.7%
GROUP 5		187.	5. 2.7%	3. 1.6%	18. 9.6%	34. 18.2%	127. 67.9%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 53.01%

Females

ACTUAL GROUP		NO. OF CASES	GROUP MEMBERSHIP				
			PREDICTED GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1		95.	68. 71.6%	26. 27.4%	1. 1.1%	0. .0%	0. .0%
GROUP 2		295.	84. 28.5%	153. 51.9%	42. 14.2%	7. 2.4%	9. 3.1%
GROUP 3		493.	20. 4.1%	83. 16.8%	235. 47.7%	81. 16.4%	74. 15.0%
GROUP 4		136.	8. 5.9%	9. 6.6%	30. 22.1%	65. 47.8%	24. 17.6%
GROUP 5		96.	9. 9.4%	3. 3.1%	10. 10.4%	22. 22.9%	52. 54.2%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 51.39%

*Group = Level of Sexual Conformity

variables, were that males had two significant discriminant functions while females had three. The first function divided groups one and two from the rest for each sex with dating being the most highly loaded variable and predicting to groups three to five. General delinquency was the second highest variable with availability of drugs and smoking also loading high. For males, self regard loaded high on this function. Thus except for self-regard, these factors appear to be very similar. Variables predicting membership to groups one and two on function one were being first born (DX72) for both males and females. Being second born (DX73) was influential for males whereas, being ambivalent toward marriage (DX1761) was more characteristic of females. On function two, variables predicting to groups three and four for males were dating, college orientation, church perception, delinquent self concept, and the male who values social life and does enough school work to get by (DX762). Variables predicting membership to groups one, two, and five for males on function two were higher social class (DX32 to DX34) being early born (DX72 and DX73), and ambivalent toward marriage (DX1754 and DX1761) for groups one and two, and drugs, low social class (DX31) and general delinquency for group five. The results were similar for females on function two with drugs and low social class indicating membership in groups four or five, being early born, high social class, and religious indicating membership in group

one. Dating, self-regard, valuing education, and school activities were characteristic of membership in groups two or three.

Females had a third significant function which separated groups one, two, and four from groups three and five. On this function variables predicting membership to group four, and to a very small degree one and two, are marrying early (DX1751), drug use, church and teacher perception, and low social class. Membership in group five and to some degree group three was characterized by the variables general delinquency, faith and religiosity. The means for males and females can be found in Tables B.6 and B.7 in Appendix B.

The functions yielded little difference in the overall classification procedure (Table 4.5) with 53.6 per cent of the males and 51.4 per cent of the females being correctly classified. The classifications are monotonic--percentages decrease off the diagonal in either direction with a slight exception for group four and five females who were predicted to group one. These final classifications will later be compared with the results of the stepwise MDA to follow.

Thus using all subjects in the direct method, our hypothesis that dating will be the most powerful discriminator was upheld for functions one and two. For males this was true on function one and for females this was true on the first two functions.

Stepwise Method

Step One. In order to reduce the number of variables in the discriminant equation and to progress toward parsimony, it was necessary to move beyond the direct method of obtaining our discriminant functions and to use a stepwise procedure which eliminated non significant variables from the equation. On the first stepwise run those variables not having a F ratio greater than one were excluded from the equation. These excluded variables were then put through another stepwise discriminant analysis and those with F ratios of less than one were excluded from the analysis. Table 4.6 shows the resultant variables and their loadings on the discriminant functions for our three sets of subjects (males, females, and all subjects). Again dating had the highest loading for the three subject groups with males and all subjects having only two significant functions and females three significant functions. Table 4.7 gives the number of grouped cases correctly classified and very little difference exists between this classification and the one for the direct method. These functions are not interpreted since they were part of a distilling process.

Step Two. Table 4.8 presents the discriminant function coefficients for those variables that were not retained on the first stepwise run. Stress variables and family size were most predictive of having intercourse with one or more partners; bonding, social class, and life style

All				Males				Females			
DISCRIMINANT FUNCTION	RELATIVE PERCENTAGE	EIGENVALUE	CANONICAL CORRELATION	DISCRIMINANT FUNCTION	RELATIVE PERCENTAGE	EIGENVALUE	CANONICAL CORRELATION	DISCRIMINANT FUNCTION	RELATIVE PERCENTAGE	EIGENVALUE	CANONICAL CORRELATION
1	82.74	1.0928	.727	1	85.35	1.88718	.730	1	81.27	1.03189	.716
2	13.33	.17666	.386	2	11.7128	.17128	.352	2	11.27	.17518	.352
3	2.08	.03352	.185					3	5.25	.06620	.235
STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS				STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS				STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS			
FUNC 1	FUNC 2	FUNC 3		FUNC 1	FUNC 2			FUNC 1	FUNC 2		
X1	.793	.000		X1	.232			X1	.260		
X2	.000	.102		X2	.339			X2	.260		
X3	.000	.102		X3	.000			X3	.260		
X4	.000	.102		X4	.000			X4	.260		
X5	.000	.102		X5	.000			X5	.260		
X6	.000	.102		X6	.000			X6	.260		
X7	.000	.102		X7	.000			X7	.260		
X8	.000	.102		X8	.000			X8	.260		
X9	.000	.102		X9	.000			X9	.260		
X10	.000	.102		X10	.000			X10	.260		
X11	.000	.102		X11	.000			X11	.260		
X12	.000	.102		X12	.000			X12	.260		
X13	.000	.102		X13	.000			X13	.260		
X14	.000	.102		X14	.000			X14	.260		
X15	.000	.102		X15	.000			X15	.260		
X16	.000	.102		X16	.000			X16	.260		
X17	.000	.102		X17	.000			X17	.260		
X18	.000	.102		X18	.000			X18	.260		
X19	.000	.102		X19	.000			X19	.260		
X20	.000	.102		X20	.000			X20	.260		
X21	.000	.102		X21	.000			X21	.260		
X22	.000	.102		X22	.000			X22	.260		
X23	.000	.102		X23	.000			X23	.260		
X24	.000	.102		X24	.000			X24	.260		
X25	.000	.102		X25	.000			X25	.260		
X26	.000	.102		X26	.000			X26	.260		
X27	.000	.102		X27	.000			X27	.260		
X28	.000	.102		X28	.000			X28	.260		
X29	.000	.102		X29	.000			X29	.260		
X30	.000	.102		X30	.000			X30	.260		
X31	.000	.102		X31	.000			X31	.260		
X32	.000	.102		X32	.000			X32	.260		
X33	.000	.102		X33	.000			X33	.260		
X34	.000	.102		X34	.000			X34	.260		
X35	.000	.102		X35	.000			X35	.260		
X36	.000	.102		X36	.000			X36	.260		
X37	.000	.102		X37	.000			X37	.260		
X38	.000	.102		X38	.000			X38	.260		
X39	.000	.102		X39	.000			X39	.260		
X40	.000	.102		X40	.000			X40	.260		
X41	.000	.102		X41	.000			X41	.260		
X42	.000	.102		X42	.000			X42	.260		
X43	.000	.102		X43	.000			X43	.260		
X44	.000	.102		X44	.000			X44	.260		
X45	.000	.102		X45	.000			X45	.260		
X46	.000	.102		X46	.000			X46	.260		
X47	.000	.102		X47	.000			X47	.260		
X48	.000	.102		X48	.000			X48	.260		
X49	.000	.102		X49	.000			X49	.260		
X50	.000	.102		X50	.000			X50	.260		
X51	.000	.102		X51	.000			X51	.260		
X52	.000	.102		X52	.000			X52	.260		
X53	.000	.102		X53	.000			X53	.260		
X54	.000	.102		X54	.000			X54	.260		
X55	.000	.102		X55	.000			X55	.260		
X56	.000	.102		X56	.000			X56	.260		
X57	.000	.102		X57	.000			X57	.260		
X58	.000	.102		X58	.000			X58	.260		
X59	.000	.102		X59	.000			X59	.260		
X60	.000	.102		X60	.000			X60	.260		
X61	.000	.102		X61	.000			X61	.260		
X62	.000	.102		X62	.000			X62	.260		
X63	.000	.102		X63	.000			X63	.260		
X64	.000	.102		X64	.000			X64	.260		
X65	.000	.102		X65	.000			X65	.260		
X66	.000	.102		X66	.000			X66	.260		
X67	.000	.102		X67	.000			X67	.260		
X68	.000	.102		X68	.000			X68	.260		
X69	.000	.102		X69	.000			X69	.260		
X70	.000	.102		X70	.000			X70	.260		
X71	.000	.102		X71	.000			X71	.260		
X72	.000	.102		X72	.000			X72	.260		
X73	.000	.102		X73	.000			X73	.260		
X74	.000	.102		X74	.000			X74	.260		
X75	.000	.102		X75	.000			X75	.260		
X76	.000	.102		X76	.000			X76	.260		
X77	.000	.102		X77	.000			X77	.260		
X78	.000	.102		X78	.000			X78	.260		
X79	.000	.102		X79	.000			X79	.260		
X80	.000	.102		X80	.000			X80	.260		
X81	.000	.102		X81	.000			X81	.260		
X82	.000	.102		X82	.000			X82	.260		
X83	.000	.102		X83	.000			X83	.260		
X84	.000	.102		X84	.000			X84	.260		
X85	.000	.102		X85	.000			X85	.260		
X86	.000	.102		X86	.000			X86	.260		
X87	.000	.102		X87	.000			X87	.260		
X88	.000	.102		X88	.000			X88	.260		
X89	.000	.102		X89	.000			X89	.260		
X90	.000	.102		X90	.000			X90	.260		
X91	.000	.102		X91	.000			X91	.260		
X92	.000	.102		X92	.000			X92	.260		
X93	.000	.102		X93	.000			X93	.260		
X94	.000	.102		X94	.000			X94	.260		
X95	.000	.102		X95	.000			X95	.260		
X96	.000	.102		X96	.000			X96	.260		
X97	.000	.102		X97	.000			X97	.260		
X98	.000	.102		X98	.000			X98	.260		
X99	.000	.102		X99	.000			X99	.260		
X100	.000	.102		X100	.000			X100	.260		
CENTROIDS OF GROUPS IN REDUCED SPACE				CENTROIDS OF GROUPS IN REDUCED SPACE				CENTROIDS OF GROUPS IN REDUCED SPACE			
FUNC 1	FUNC 2	FUNC 3		FUNC 1	FUNC 2			FUNC 1	FUNC 2		
GROUP 1	-1.16474	.48948	-.0607	GROUP 1	1.06694	-.61173		GROUP 1	-1.28917	-.47638	-.05320
GROUP 2	-.79147	.06013	-.06335	GROUP 2	.78349	-.02810		GROUP 2	-.60525	.04203	-.08431
GROUP 3	-.39209	-.32051	.12268	GROUP 3	-.06897	-.41706		GROUP 3	.33044	.29699	-.11973
GROUP 4	.20362	-.03151	-.43373	GROUP 4	-.55633	-.22204		GROUP 4	.84837	-.24230	-.57933
GROUP 5	1.07857	.70422	.15230	GROUP 5	-1.13637	-.47896		GROUP 5	.83328	-.63964	-.41124

Table 4.7--Percent of Cases Correctly Classified for All Subjects, and for Males, and Females (First Stepwise Procedure).

<u>All</u>						
ACTUAL GROUP	NO. OF CASES	PREDICTED GP. 1	GROUP MEMBERSHIP GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	203.	135. 66.5%	61. 30.0%	1. .5%	0. .0%	6. 3.0%
GROUP 2	543.	149. 31.1%	258. 47.5%	96. 17.7%	14. 2.6%	6. 1.1%
GROUP 3	811.	42. 5.2%	139. 17.1%	395. 48.7%	135. 16.6%	100. 12.3%
GROUP 4	271.	10. 3.7%	27. 10.0%	60. 22.1%	104. 38.4%	70. 25.8%
GROUP 5	283.	8. 2.8%	13. 4.6%	40. 14.1%	55. 19.4%	167. 59.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 50.17%

<u>Males</u>						
ACTUAL GROUP	NO. OF CASES	PREDICTED GP. 1	GROUP MEMBERSHIP GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	108.	75. 69.4%	25. 23.1%	3. 2.8%	2. 1.9%	3. 2.8%
GROUP 2	248.	71. 28.6%	128. 51.6%	38. 15.3%	6. 2.4%	5. 2.0%
GROUP 3	318.	29. 9.1%	53. 16.7%	141. 44.3%	59. 18.6%	36. 11.3%
GROUP 4	135.	3. 2.2%	16. 11.9%	24. 17.8%	59. 43.7%	33. 24.4%
GROUP 5	187.	4. 2.1%	3. 1.6%	19. 10.2%	38. 20.3%	123. 65.8%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 52.61%

<u>Females</u>						
ACTUAL GROUP	NO. OF CASES	PREDICTED GP. 1	GROUP MEMBERSHIP GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	95.	67. 70.5%	27. 28.4%	0. .0%	0. .0%	1. 1.1%
GROUP 2	295.	83. 28.1%	155. 52.5%	42. 14.2%	6. 2.0%	9. 3.1%
GROUP 3	493.	19. 3.9%	81. 16.4%	240. 48.7%	77. 15.6%	76. 15.4%
GROUP 4	136.	8. 5.9%	9. 6.6%	32. 23.5%	64. 47.1%	23. 16.9%
GROUP 5	96.	9. 9.4%	3. 3.1%	9. 9.4%	23. 24.0%	52. 54.2%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 51.24%

Table 4.8--Standardized Discriminant Function Coefficients and Group Centroids for All Subjects, and for Males and Females (Second Stepwise Procedure).

All			Males			Females		
DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE
1	.16067	78.43	1	.30142	80.21	1	.15103	74.83
2	.03422	16.51	2	.05110	11.28	2	.02146	13.80
STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS			STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS			STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS		
	FUNC 1	FUNC 2		FUNC 1	FUNC 2		FUNC 1	FUNC 2
X6	-.10221	-.23929	X6	-.04249	-.11149	X6	-.12442	-.18754
PARACC	-.06449	-.14429	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
SCHUOLP	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
TEACHRP	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
RELIGITV	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
DEPLILYC	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
CLASSES	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
DX763	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
DX1763	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
1102	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS			STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS			STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS		
	FUNC 1	FUNC 2		FUNC 1	FUNC 2		FUNC 1	FUNC 2
X6	-.10221	-.23929	X6	-.04249	-.11149	X6	-.12442	-.18754
PARACC	-.06449	-.14429	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
SCHUOLP	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
TEACHRP	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
RELIGITV	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
DEPLILYC	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
CLASSES	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
DX763	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
DX1763	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
1102	-.07609	-.17177	PARACC	-.11007	-.23701	PARACC	-.24429	-.28170
CENTROIDS OF GROUPS IN REDUCED SPACE			CENTROIDS OF GROUPS IN REDUCED SPACE			CENTROIDS OF GROUPS IN REDUCED SPACE		
	FUNC 1	FUNC 2		FUNC 1	FUNC 2		FUNC 1	FUNC 2
GROUP 1	-.43230	.35904	GROUP 1	-.59031	-.28505	GROUP 1	-.54462	-.34218
GROUP 2	.35144	.04395	GROUP 2	.46872	-.03028	GROUP 2	-.37837	.00523
GROUP 3	.03119	-.15291	GROUP 3	-.09367	-.25025	GROUP 3	.07086	-.14042
GROUP 4	-.35648	-.15787	GROUP 4	-.31903	-.21236	GROUP 4	.54777	-.07625
GROUP 5	-.73239	-.24756	GROUP 5	-.84495	-.25955	GROUP 5	.58309	-.29461

preference were most predictive of group membership for all three classes of subjects. Table 4.9 presents the cases correctly specified and as expected these variables were less able to predict group membership than those retained on the first run.

At this juncture we eliminated the following variables from the equation:

		All	Males	Females
Classes	(School Classes)		X*	
DELSC	(Delinquent Self-Concept)			X
DX31	(Father has Some H.S.)		X	
DX32	(Father Graduated from H.S.)	X		
DX33	(Father has Some College)	X		
DX74	(Third Born)			X
DX81	(Only Child)		X	
DX1752	(Expects to Marry in Thirties)	X	X	X
DX1762	(Wants No Children)	X		X
DX1764	(Wants Two Children)			X
MINSTRP	(Minister Perception)			X
PARACC	(Parental Acceptance)	X	X	
PARCONC	(Parental Congeniality)			X
PHYSWBR	(Physical Well Being)	X		
RELGITY	(Religiosity)		X	
X6	(Family Size)			X

*X = Eliminated from the equation

Table 4.9--Percent of Cases Correctly Classified for All Subjects, and for Males, and Females (Second Stepwise Procedure).

		<u>All</u>					
		NO. OF CASES	PREDICTED GROUP MEMBERSHIP				
<u>ACTUAL GROUP</u>			GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP	1	203.	86. 42.4%	49. 24.1%	20. 9.9%	20. 9.9%	28. 13.8%
GROUP	2	343.	182. 53.5%	140. 25.8%	89. 16.4%	59. 10.9%	73. 13.4%
GROUP	3	811.	180. 22.2%	151. 18.6%	167. 20.6%	145. 17.9%	168. 20.7%
GROUP	4	271.	41. 15.1%	38. 14.0%	41. 15.1%	69. 25.5%	82. 30.3%
GROUP	5	283.	36. 12.7%	23. 8.1%	23. 8.1%	48. 17.0%	153. 54.1%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 29.13%

		<u>Males</u>					
<u>ACTUAL GROUP</u>		<u>NO. OF CASES</u>	<u>PREDICTED GP. 1</u>	<u>GROUP MEMBERSHIP GP. 2</u>	<u>GP. 3</u>	<u>GP. 4</u>	<u>GP. 5</u>
GROUP 1	1	177.	81. 45.2%	44. 24.9%	24. 13.6%	12. 6.8%	16. 9.0%
GROUP 2	2	259.	75. 29.0%	96. 37.1%	42. 16.2%	24. 9.3%	22. 8.5%
GROUP 3	3	249.	48. 19.3%	43. 17.3%	59. 23.7%	37. 14.9%	62. 24.9%
GROUP 4	4	137.	22. 16.1%	19. 13.9%	29. 21.2%	31. 22.6%	36. 26.3%
GROUP 5	5	188.	18. 9.6%	13. 6.9%	19. 10.1%	30. 16.0%	108. 57.4%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 37.13%

		<u>Females</u>					
ACTUAL GROUP		NO. OF CASES	PREDICTED GROUP MEMBERSHIP				
-----			GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP	1	96.	37. 38.5%	31. 32.3%	12. 12.5%	4. 4.2%	12. 12.5%
GROUP	2	303.	70. 23.1%	118. 38.9%	51. 16.8%	29. 9.6%	35. 11.6%
GROUP	3	499.	94. 18.8%	116. 23.2%	110. 22.0%	88. 17.6%	91. 18.2%
GROUP	4	138.	18. 13.0%	18. 13.0%	27. 19.6%	44. 31.9%	31. 22.5%
GROUP	5	96.	13. 13.5%	18. 18.7%	11. 11.5%	17. 17.7%	37. 38.5%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 30.57%

Factor Analysis of Retained Variables

Separate factor analyses were done for all subjects and for males and females separately. The dating variable was to be kept separate regardless of how it factored. For variables to be accepted their coefficients had to be above .30.

For all subjects self-regard and college orientation loaded together to form a new variable SELFCOL. Similarly the variables of marrying in twenties (DX1752) and having a medium sized family (DX1764) loaded together and the variable X175624 was formed. For both males and females being unsure of marriage (DX1754) and not desiring any children (DX1761) loaded together and the variable X175641 was formed.

Variables which loaded together to form bonding, community bonding, religious orientation, and stress factors are labeled with a 5 (all subjects), 6 (males), and 7 (females) on the end of their variable label name. For instance CB5 is the combination of faith, police perception, authoritarianism, parent child communication, school perception, teacher perception, and school classes. Any similar combination may be found by consulting the glossary of terms in Chapter 3.

What is usually interpreted as functions in a discriminant analysis is being circumvented by factoring the variables. In order to reduce the variable set before the

final run, the factor analysis divided the variables into groups thus doing part of the work of interpreting functions. A check was made after the third step to see if any of the functions logically and meaningfully fit together.

Step Three. The final discriminant run of the variables retained from the factor analysis of the variables from the first two discriminant runs plus the interaction and curvilinear terms is presented in Table 4.10. Again dating emerged as the single most discriminating variable for males, females and all subjects; nonconformity (DELBEH) and the interaction term of stress and nonconforming behavior (MXSD) was the next set of variables which predicted group membership. For all subjects we distilled the original 51 variables down to 20 plus the seven interaction and curvilinear terms; that is, for males 15 variables and for females 16 variables. Further reduction through factor analysis did not seem practical at that time due to the large number of scattered dummy variables and the relatively few number of variables which seemed to fit together logically. This process of distilling the variables has had another desirable effect in that the resulting discriminant functions are more distinguishable in terms of the variables defining them. For instance, function one for all subjects separated groups one and two from three to five with dating and nonconformity squared predicting strongest to groups four and five; stress predicted weakly. Also the interaction of age, dating, bonding, and stress, as well as the

Table 4.10--Standardized Discriminant Function Coefficients and Group Centroids for All Subjects, and for Males and Females (Third Stepwise Procedure).

All				Males				Females			
DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION
1	1.10477	81.86	.724	1	1.28879	84.61	.750	1	1.06883	81.57	.719
2	.10143	7.19	.501	2	.16510	12.17	.395	2	.16806	12.66	.379
3	.04206	3.12	.201					3	.04757	3.63	.215
STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS											
	FUNC 1	FUNC 2	FUNC 3		FUNC 1	FUNC 2	FUNC 3		FUNC 1	FUNC 2	FUNC 3
DELBEH5	.67201	.41647	1.04500	DELBEH6	.62369	-.26234		DELBEH7	.35823	.10196	
STRESS5	-.11777	.41548	-.01291	STRESS6	.13763	-.27481		STRESS7	.22872	-.23368	
CBEL5	-.04777	-.02200	-.17228	CBEL6	-.07957	-.27481		CBEL7	.04772	-.18577	
SELF COL	-.04406	-.00060	-.08092	SELF COL	-.07957	-.27481		SELF COL	-.04772	-.18577	
DX1751	1.17732	2.33333	-.41116	DX1752	1.47226	-.01117		DX1753	-.05866	.06435	
DX1752	-.03280	-.00899	-.21113	DX1753	1.47226	-.01117		DX1754	.05866	.11130	
DX1753	-.03280	-.00899	-.21113	DX1754	1.47226	-.01117		DX1755	-.05866	-.23368	
DX1754	-.03280	-.00899	-.21113	DX1755	1.47226	-.01117		DX1756	.05866	.11130	
DX1755	-.03280	-.00899	-.21113	DX1756	1.47226	-.01117		DX1757	-.05866	-.23368	
DX1756	-.03280	-.00899	-.21113	DX1757	1.47226	-.01117		DX1758	.05866	.11130	
DX1757	-.03280	-.00899	-.21113	DX1758	1.47226	-.01117		DX1759	-.05866	-.23368	
DX1758	-.03280	-.00899	-.21113	DX1759	1.47226	-.01117		DX1760	.05866	.11130	
DX1759	-.03280	-.00899	-.21113	DX1760	1.47226	-.01117		DX1761	-.05866	-.23368	
DX1760	-.03280	-.00899	-.21113	DX1761	1.47226	-.01117		DX1762	.05866	.11130	
DX1761	-.03280	-.00899	-.21113	DX1762	1.47226	-.01117		DX1763	-.05866	-.23368	
DX1762	-.03280	-.00899	-.21113	DX1763	1.47226	-.01117		DX1764	.05866	.11130	
DX1763	-.03280	-.00899	-.21113	DX1764	1.47226	-.01117		DX1765	-.05866	-.23368	
DX1764	-.03280	-.00899	-.21113	DX1765	1.47226	-.01117		DX1766	.05866	.11130	
DX1765	-.03280	-.00899	-.21113	DX1766	1.47226	-.01117		DX1767	-.05866	-.23368	
DX1766	-.03280	-.00899	-.21113	DX1767	1.47226	-.01117		DX1768	.05866	.11130	
DX1767	-.03280	-.00899	-.21113	DX1768	1.47226	-.01117		DX1769	-.05866	-.23368	
DX1768	-.03280	-.00899	-.21113	DX1769	1.47226	-.01117		DX1770	.05866	.11130	
DX1769	-.03280	-.00899	-.21113	DX1770	1.47226	-.01117		DX1771	-.05866	-.23368	
DX1770	-.03280	-.00899	-.21113	DX1771	1.47226	-.01117		DX1772	.05866	.11130	
DX1771	-.03280	-.00899	-.21113	DX1772	1.47226	-.01117		DX1773	-.05866	-.23368	
DX1772	-.03280	-.00899	-.21113	DX1773	1.47226	-.01117		DX1774	.05866	.11130	
DX1773	-.03280	-.00899	-.21113	DX1774	1.47226	-.01117		DX1775	-.05866	-.23368	
DX1774	-.03280	-.00899	-.21113	DX1775	1.47226	-.01117		DX1776	.05866	.11130	
DX1775	-.03280	-.00899	-.21113	DX1776	1.47226	-.01117		DX1777	-.05866	-.23368	
DX1776	-.03280	-.00899	-.21113	DX1777	1.47226	-.01117		DX1778	.05866	.11130	
DX1777	-.03280	-.00899	-.21113	DX1778	1.47226	-.01117		DX1779	-.05866	-.23368	
DX1778	-.03280	-.00899	-.21113	DX1779	1.47226	-.01117		DX1780	.05866	.11130	
DX1779	-.03280	-.00899	-.21113	DX1780	1.47226	-.01117		DX1781	-.05866	-.23368	
DX1780	-.03280	-.00899	-.21113	DX1781	1.47226	-.01117		DX1782	.05866	.11130	
DX1781	-.03280	-.00899	-.21113	DX1782	1.47226	-.01117		DX1783	-.05866	-.23368	
DX1782	-.03280	-.00899	-.21113	DX1783	1.47226	-.01117		DX1784	.05866	.11130	
DX1783	-.03280	-.00899	-.21113	DX1784	1.47226	-.01117		DX1785	-.05866	-.23368	
DX1784	-.03280	-.00899	-.21113	DX1785	1.47226	-.01117		DX1786	.05866	.11130	
DX1785	-.03280	-.00899	-.21113	DX1786	1.47226	-.01117		DX1787	-.05866	-.23368	
DX1786	-.03280	-.00899	-.21113	DX1787	1.47226	-.01117		DX1788	.05866	.11130	
DX1787	-.03280	-.00899	-.21113	DX1788	1.47226	-.01117		DX1789	-.05866	-.23368	
DX1788	-.03280	-.00899	-.21113	DX1789	1.47226	-.01117		DX1790	.05866	.11130	
DX1789	-.03280	-.00899	-.21113	DX1790	1.47226	-.01117		DX1791	-.05866	-.23368	
DX1790	-.03280	-.00899	-.21113	DX1791	1.47226	-.01117		DX1792	.05866	.11130	
DX1791	-.03280	-.00899	-.21113	DX1792	1.47226	-.01117		DX1793	-.05866	-.23368	
DX1792	-.03280	-.00899	-.21113	DX1793	1.47226	-.01117		DX1794	.05866	.11130	
DX1793	-.03280	-.00899	-.21113	DX1794	1.47226	-.01117		DX1795	-.05866	-.23368	
DX1794	-.03280	-.00899	-.21113	DX1795	1.47226	-.01117		DX1796	.05866	.11130	
DX1795	-.03280	-.00899	-.21113	DX1796	1.47226	-.01117		DX1797	-.05866	-.23368	
DX1796	-.03280	-.00899	-.21113	DX1797	1.47226	-.01117		DX1798	.05866	.11130	
DX1797	-.03280	-.00899	-.21113	DX1798	1.47226	-.01117		DX1799	-.05866	-.23368	
DX1798	-.03280	-.00899	-.21113	DX1799	1.47226	-.01117		DX1800	.05866	.11130	
DX1799	-.03280	-.00899	-.21113	DX1800	1.47226	-.01117		DX1801	-.05866	-.23368	
DX1800	-.03280	-.00899	-.21113	DX1801	1.47226	-.01117		DX1802	.05866	.11130	
DX1801	-.03280	-.00899	-.21113	DX1802	1.47226	-.01117		DX1803	-.05866	-.23368	
DX1802	-.03280	-.00899	-.21113	DX1803	1.47226	-.01117		DX1804	.05866	.11130	
DX1803	-.03280	-.00899	-.21113	DX1804	1.47226	-.01117		DX1805	-.05866	-.23368	
DX1804	-.03280	-.00899	-.21113	DX1805	1.47226	-.01117		DX1806	.05866	.11130	
DX1805	-.03280	-.00899	-.21113	DX1806	1.47226	-.01117		DX1807	-.05866	-.23368	
DX1806	-.03280	-.00899	-.21113	DX1807	1.47226	-.01117		DX1808	.05866	.11130	
DX1807	-.03280	-.00899	-.21113	DX1808	1.47226	-.01117		DX1809	-.05866	-.23368	
DX1808	-.03280	-.00899	-.21113	DX1809	1.47226	-.01117		DX1810	.05866	.11130	
DX1809	-.03280	-.00899	-.21113	DX1810	1.47226	-.01117		DX1811	-.05866	-.23368	
DX1810	-.03280	-.00899	-.21113	DX1811	1.47226	-.01117		DX1812	.05866	.11130	
DX1811	-.03280	-.00899	-.21113	DX1812	1.47226	-.01117		DX1813	-.05866	-.23368	
DX1812	-.03280	-.00899	-.21113	DX1813	1.47226	-.01117		DX1814	.05866	.11130	
DX1813	-.03280	-.00899	-.21113	DX1814	1.47226	-.01117		DX1815	-.05866	-.23368	
DX1814	-.03280	-.00899	-.21113	DX1815	1.47226	-.01117		DX1816	.05866	.11130	
DX1815	-.03280	-.00899	-.21113	DX1816	1.47226	-.01117		DX1817	-.05866	-.23368	
DX1816	-.03280	-.00899	-.21113	DX1817	1.47226	-.01117		DX1818	.05866	.11130	
DX1817	-.03280	-.00899	-.21113	DX1818	1.47226	-.01117		DX1819	-.05866	-.23368	
DX1818	-.03280	-.00899	-.21113	DX1819	1.47226	-.01117		DX1820	.05866	.11130	
DX1819	-.03280	-.00899	-.21113	DX1820	1.47226	-.01117		DX1821	-.05866	-.23368	
DX1820	-.03280	-.00899	-.21113	DX1821	1.47226	-.01117		DX1822	.05866	.11130	
DX1821	-.03280	-.00899	-.21113	DX1822	1.47226	-.01117		DX1823	-.05866	-.23368	
DX1822	-.03280	-.00899	-.21113	DX1823	1.47226	-.01117		DX1824	.05866	.11130	
DX1823	-.03280	-.00899	-.21113	DX1824	1.47226	-.01117		DX1825	-.05866	-.23368	
DX1824	-.03280	-.00899	-.21113	DX1825	1.47226	-.01117		DX1826	.05866	.11130	
DX1825	-.03280	-.00899	-.21113	DX1826	1.47226	-.01117		DX1827	-.05866	-.23368	
DX1826	-.03280	-.00899	-.21113	DX1827	1.47226	-.01117		DX1828	.05866	.11130	
DX1827	-.03280	-.00899	-.21113	DX1828	1.47226	-.01117		DX1829	-.05866	-.23368	
DX1828	-.03280	-.00899	-.21113	DX1829	1.47226	-.01117		DX1830	.05866	.11130	
DX1829	-.03280	-.00899	-.21113	DX1830	1.47226	-.01117		DX1831	-.05866	-.23368	
DX1830	-.03280	-.00899	-.21113	DX1831	1.47226	-.01117		DX1832	.05866	.11130	
DX1831	-.03280	-.00899	-.21113	DX1832	1.47226	-.01117		DX1833	-.05866	-.23368	
DX1832	-.03280	-.00899	-.21113	DX1833	1.47226	-.01117		DX1834	.05866	.11130	
DX1833	-.03280	-.00899	-.21113	DX1834	1.47226	-.01117		DX1835	-.05866	-.23368	
DX1834	-.03280	-.00899	-.21113	DX1835	1.47226	-.01117		DX1836	.05866	.11130	
DX1835	-.03280	-.00899									

interaction of stress and nonconforming behavior (MXSD) predicted membership in groups three to five. Variables predicting membership in groups one and two for all subjects were the curvilinear terms of dating, nonconformity, stress, and the interaction terms of dating and stress (MX5S), age, courtship, bonding, and delinquent behavior.

On function two, the picture becomes less clear with positive values for dating, nonconformity squared, stress, valuing school, being female, desiring a medium size family and the interaction of age, dating, bonding, and stress (MX1X5BS) predicting membership to group three (petters). Variables with negative values and predicting membership to group one, no sex, were CB5 plus the curvilinear and interaction terms which maximized the differences between groups one and five.

Function three predicted and differentiated membership in groups four and five primarily, with a slight tendency for group three to be like group five and group one to be like group four. Positive loadings were associated with groups one and four for the variables nonconforming behavior, desiring to marry early, to have a large family, being later born, lower social class, ambivalence toward marriage, coming from a large family, the curvilinear terms of dating and stress, and the interaction terms of age, dating, bonding, and nonconforming behavior. Group five membership was reflected in the variables of age, dating, nonconformity

(curvilinear), and the interaction of stress and delinquent behavior.

These three functions predicted 49.6 per cent (Table 4.11) of the cases correctly as compared with 51.0 per cent using all the variables without the curvilinear and interaction terms. Thus we have achieved the goal of reducing the variables set without any appreciable loss in predictive power.

The differences between males and females as to which variables were most salient in predicting group membership were as follows. For males the first two functions were significant, whereas the first three were significant for females. Thus our discussion will proceed with only significant functions being considered. On function one for both males and females dating, nonconforming behavior, and the interaction of stress and nonconforming behavior were the most predictive of membership in groups four or five (intercourse). Stress and age squared were also influential for females. Variables predicting membership to groups one and two for both males and females were the curvilinear terms for dating, stress, and nonconforming behavior and the interaction term of dating and stress.

On function two, dating, stress, college orientation, and the interaction term of stress and nonconforming behavior predicted membership to group three for each sex. For males age, college orientation, nonconforming behavior,

Table 4.11--Percent of Cases Correctly Classified for All Subjects, and for Males, and Females (Third Stepwise Procedure).

		<u>All</u>					
<u>ACTUAL GROUP</u>		<u>NO. OF CASES</u>	<u>PREDICTED GP. 1</u>	<u>GROUP MEMBERSHIP GP. 2</u>	<u>GP. 3</u>	<u>GP. 4</u>	<u>GP. 5</u>
GROUP 1		206.	157. 76.2%	76. 36.4%	1. .5%	5. 2.4%	7. 3.4%
GROUP 2		550.	209. 38.0%	197. 35.8%	113. 20.5%	18. 3.3%	13. 2.4%
GROUP 3		821.	47. 5.7%	108. 13.2%	440. 53.6%	134. 16.3%	92. 11.2%
GROUP 4		275.	12. 4.4%	20. 7.3%	64. 23.3%	105. 38.2%	74. 26.9%
GROUP 5		283.	9. 3.2%	12. 4.2%	49. 17.3%	53. 18.7%	160. 56.3%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 49.60%

		<u>Males</u>					
<u>ACTUAL GROUP</u>		<u>NO. OF CASES</u>	<u>PREDICTED GP. 1</u>	<u>GROUP MEMBERSHIP GP. 2</u>	<u>GP. 3</u>	<u>GP. 4</u>	<u>GP. 5</u>
GROUP 1		110.	76. 69.1%	25. 22.7%	2. 1.8%	6. 5.5%	1. .9%
GROUP 2		249.	80. 32.1%	104. 41.8%	50. 20.1%	14. 5.6%	1. .4%
GROUP 3		325.	24. 7.4%	45. 13.8%	143. 44.0%	75. 23.1%	38. 11.7%
GROUP 4		137.	5. 3.6%	13. 9.5%	35. 25.5%	48. 35.0%	36. 26.3%
GROUP 5		187.	2. 1.1%	7. 3.7%	19. 10.2%	42. 22.5%	117. 62.6%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 48.41%

		<u>Females</u>					
<u>ACTUAL GROUP</u>		<u>NO. OF CASES</u>	<u>PREDICTED GP. 1</u>	<u>GROUP MEMBERSHIP GP. 2</u>	<u>GP. 3</u>	<u>GP. 4</u>	<u>GP. 5</u>
GROUP 1		96.	74. 77.1%	21. 21.9%	1. 1.0%	0. .0%	0. .0%
GROUP 2		301.	89. 29.6%	122. 40.5%	73. 24.3%	6. 2.0%	11. 3.7%
GROUP 3		496.	19. 3.8%	68. 13.7%	268. 54.0%	71. 14.3%	70. 14.1%
GROUP 4		138.	4. 2.9%	10. 7.2%	32. 23.2%	62. 44.9%	30. 21.7%
GROUP 5		96.	6. 6.2%	5. 5.2%	16. 16.7%	21. 21.9%	48. 50.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 50.93%

stress, life style preference three, and marrying early were predictive of membership in group three. Other unique variables for females in group three were self-regard and being second born. Function two also differentiated between groups one and five from group three. Group four for females was more closely aligned with group five than was the case for males where group four was aligned with group three. For both males and females BONDS (the curvilinear term for bonding), being first born, X1S (the curvilinear term for age), dating, stress, and nonconforming behavior, and the interaction term for dating and stress (MX5S) were common predictors. The unique variable for males was being second born and for females the unique variables were nonconforming behaviors, ambivalence toward marriage, age, being an only child, and low social class.

On function three for females groups one and five were separated from groups four, primarily group four from group five. Variables predicting membership in group four were ambivalence toward marriage, nonconforming behavior, the curvilinear terms of age, dating, stress, and nonconforming behavior, and the interaction term of dating and stress. Variables predictive of membership in group five were stress, life style preference one, age, dating, self-regard, being an only child, and the interaction term of stress and nonconforming behavior.

Variables eliminated from the equation on the

third MDA were:

		All	Males	Females
Bonds	(Curvilinear Term for Bonding)	X	X	X
DX32	(Father Graduated from H.S.)		X	
DX33	(Father has some College)		X	X
DX34	(Father is a College Graduate)		X	
DX81	(Only Child)		X	
DX761	(Values Vocational Training)		X	
DX762	(Values Education)		X	X
DX763	(Values Social Life)			X
REL7	(Church Perception and Religiosity)			X
X1S	(Curvilinear for Age)	X		
X6	(Family Size)			X

Variables which remained in the equation which were unique to males were delinquent self concept, religiosity, being later born, and value preference three (DX763) toward school. Variables unique to females were low and high social class, only child, valuing vocational and occupational training in school and ambivalence toward marriage.

Summary of Discriminant Analysis

The test of the hypothesis that dating would be the strongest discriminator of group membership was accepted.

Table 4.12 gives the rank order of variables obtained in the final discriminant run for all subjects, and for males and females separately. Rankings with a plus (+)

sign preceding them were indicative of membership to groups with positive loadings. For instance, on function one for all subjects the first ranking encountered was +1 for dating (X5). Therefore dating achieved the highest rank for variables predicting membership to groups 3-4-5 which was petting, intercourse with one partner, and intercourse with two partners respectively. The second term encountered for all subjects on function one was a -2 for the curvilinear term for dating (X5S). This means that the curvilinear term (X5S) ranked second for predicting membership to groups 1-2 which was no sex and kissing and hugging. Groups were equivalent to the five levels of sexual activity. Dating (X5) and the curvilinear term for dating (X5S) were ranked as ones on eleven of the sixteen groupings. The curvilinear term for nonconformity (DELBEHS) achieved ranks of one or two on six of its eight groupings being the variable ranked second the most often. Its average ranking was 2.06. The interaction of stress and nonconformity also achieved ranks of one or two on six of its eight groupings, but had an average ranking of 2.5 making it the third highest ranking variable. In all cases males had two significant functions and females three. Generally in the interpretation of functions of factors males and females were the same. Finally, no classification power was lost by the functions when the variable set was reduced by the stepwise procedure.

Regression Analysis

The analysis of the independent variables, the predictors, against the dependent variable, the criterion, was done using a backward method. The main purpose of the regression analysis was to test two hypotheses: (1) dating contributed more to the equation than did bonding, stress, or nonconforming behavior and (2) dating was a significant predictor in the equation for all subjects and for males and females separately. In performing these tests a secondary purpose was to reduce the number of variables in the equation in order to get a better idea of which variables contributed significantly to the variance. The backward method of regression seemed to be the most appropriate in order to reduce the variable set and to study the contributions of individual variables to the variance. The minimum value for a variable to enter the equation was set at $F=2.5$ significant at .010 level and the maximum value to remove a variable from the equation was set at $F=2.4$. Three different models of the variable set were used. The model with all variables contained the indexed variables plus curvilinear and interaction terms. The restricted model used the summary indexes of bonding, stress, and nonconforming behavior.

R squared was greater than zero (significant at .001 level) for all subjects, males, and females.

The hypothesis that dating significantly contributes to the variance for all subjects, males and females

was accepted. Table 4.13 gives the standardized beta weights for the variables retained on the full and restricted runs for the three classes of subjects. In five of the six possible cases dating (X5) significantly contributed to the variance with beta weights ranging from .19 to .49. In three of six instances the curvilinear term significantly contributed to the variance with beta weights ranging from a -.29 to .20. Further examination of Table 4.13 reveals that in only one instance (full model for males) the beta weight achieved by dating (.49) was the strongest predictor of sexual behavior. Most often general delinquency (GENDEL) or nonconformity (DELBEH) had the highest beta weights.

The hypothesis that "dating accounts for more variance than the summary measures taken individually of bonding, stress, and nonconforming behavior" was tested by submitting these variables plus age and sex to a multiple regression routine whereby each variable was entered last and the r^2 change was studied. This hypothesis was tested for all subjects, males and females and was not accepted.

Table 4.14 summarizes the findings from the regression runs testing the hypothesis that dating has a significant increase in its r^2 . In all three, dating was a significant contributor to the variance (significant at the .0001 level). The highest increases were for nonconforming behavior with the beta weights being stronger for nonconformity than for dating. Thus both of these variables

TABLE 6.13--SUMMARY OF REGRESSION EQUATIONS FOR FULL AND RESTRICTED MODELS
(COEFFICIENTS ARE THE STANDARDIZED BETA WEIGHTS).

	FULL			RESTRICTED		
	ALL	MALES	FEMALES	ALL	MALES	FEMALES
X1						
X15						
X2						
X4						
X5						
X55						
X6						
X61						
X62						
X63						
X64						
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consistently added to the variance when controlling for age, sex, bonding, and stress. The reverse was true of bonding and stress since they were not significant at the .01 level except in one instance--stress for females. Therefore both dating and nonconforming behavior were consistent and significant contributors to the variance while bonding and stress were not. From an examination of the beta weights it appeared that between bonding and stress bonding was more highly predictive of male sexuality and stress of female sexuality.

TABLE 4.14--R SQUARE CHANGE WHEN SELECTED VARIABLES ARE ENTERED LAST IN EQUATION.

SUBJECTS	VARIABLE ENTERED LAST IN EQUATION	BETA	R SQUARE CHANGE	F VALUE	SIG OF F
ALL	BONDING	-.02	.000	1	.354
	STRESS	.04	.001	4	.036
	NONCONFORMITY	.44	.121	446	.000
	DATING	.25	.047	171	.000
MALES	BONDING	-.06	.002	4	.046
	STRESS	-.02	.000	0	.545
	NONCONFORMITY	.52	.165	322	.000
	DATING	.27	.057	110	.000
FEMALES	BONDING	.07	.000	0	.208
	STRESS	.11	.008	13	.000
	NONCONFORMITY	.33	.071	121	.000
	DATING	.24	.039	66	.000

Summary of Regressions

Dating was found to be a significant predictor variable for both males and females and the second regression hypothesis was accepted. Dating was not found to contribute more to the variance than nonconforming behavior in a reduced model even though it was significant. Thus the first regression hypothesis was not accepted. The variable set was reduced substantially by using a backward method of regression.

Summary of the Three Multivariate Hypotheses

Three hypotheses were advanced using all of the variables at once in multivariate procedures. Two of the three hypotheses were accepted. Hypotheses are now worded in terms of what was found:

1. Dating is the single best discriminator for predicting group membership in the discriminant analysis.
2. Dating does significantly add to the variance in the regression analysis.
3. Dating does not account for more variance than nonconforming behavior in the reduced regression model.

Summary of Data Analysis

This will summarize the findings of the bivariate and multivariate tests of the hypotheses. The plan is to examine the four areas of family and structural variables, bonding, stress, and nonconforming behavior in relation to the hypotheses tested.

Given the large number of variables which were significant and their corresponding hypotheses accepted in the bivariate analysis, a distinction will be made between relationships which are trivial and those that add meaning and insight to the study of sexual behavior. Unfortunately this cannot be done on any equitable basis other than letting the variables sift themselves out in a multivariate process. Since the independent variables were correlated with each other, only a multivariate procedure can hope to

clarify and give meaning to the variables as a set. Now let us examine our four categories of variables.

Family and Structural Variables

Family structure is the more scattered and least definitive of our four areas. Father's education, the measure of social class, is in line with previous literature suggesting that individuals from lower social classes tend toward sexual activity whereas, those from upper classes tend toward less sexual activity. From an examination of the multivariate procedures this was true only for females whose father had less than a high school education tending toward higher levels of sexual activity and females whose fathers have graduated from college tending toward lower levels of sexual activity. On religion, no differences emerged between denominations; but with denominations grouped together against no religious preference significant differences did emerge, but it was found to be a significant predictor only for males. This suggests that values conveyed through a specific religion and an adolescent continuing to label self in a specific religion by name, point to a stronger set of beliefs or prohibitions against engaging in sexual behavior at this age. The variables of sibling order and sex of siblings appeared to be of little consequence in this study of sexual behavior from the multivariate context. Ordinal position was found to be more predictive of male sexual behavior with those who are

only children or born first or second being less sexually active.

The examination of anticipated marriage age and family size appeared to be about as useful as the ordinal positioning variables. Significant correlations with sexual behavior emerged for both males and females who planned to marry before age 20. Desiring a large family was not indicative of greater amounts of sexual behavior. From the multivariate context males who intended to marry were more sexually active whereas females who did not intend to marry were less sexually active. Males preferring to have only one child tended to be less sexually active. Individuals desiring to marry early and have large families tended to be sexually active. Value preferences toward school emerged as a weak discriminator for males in that it predicted males as being less sexually active. For each sex having a positive orientation toward school, be it vocational or educational, was associated with less sexual activity and having an orientation toward social life at school or wanting to be out of school to work was associated with higher levels of sexual activity.

The final predictor variable to be discussed from the family structure section is dating. This variable was highly significant compared with others in this study. Correlations with sexual behavior were generally in the forties for males and in the thirties for females accounting for ten

to twenty-five per cent of the variance. Dating increased with age for both males and females and level of sexual activity with only one exception: group five females had lower mean scores than group four, indicating a possible leveling off of emotional commitment. In the multivariate analysis dating was a consistently strong predictor of sexual activity. Given the above information we can see that dating is definitely associated with age and level of sexual activity.

Bonding

All bonding variables were significantly related to sexual activity with the exception of female religiosity. Thus bonding was negatively related to sexual activity. Overall these bonding variables have not been used extensively by researchers of sexual activity. They do seem to be promising in that their correlations were moderate in terms of the other variables in the study, and they were consistent. Negative relationships held throughout the variable set. The three summary measures of family bonding, community bonding, and bonding were generally more strongly related to sexual activity than any of their individual measures indicating the additivity and strength of these measures. Community bonding was the strongest relationship for males pointing to stronger negative transference between the community and the adolescent male than between the family and the adolescent. This supports a form of cultural

lag hypothesis that institutions do not reflect changes as quickly as do individuals. While the family is an institution, its rules are not bonded by a codified system often relied upon by teachers, police, and ministers to gain conformance from adolescents. Also existing is the "they" ethic which cannot be pinned to any individual or institution but nevertheless acts as a restraint on human behavior. Two inconsistent findings were that police perception by females was positively related to sexual activity and religiosity was not related to sexual activity. Police perception changed from being a moderate predictor of low sexual activity to a weak predictor of sexual activity. The interpretation is not clear cut as to why this may happen. It may involve an issue of trust by women or men of whom they think they can trust, or possibly be safe from, in the community. As a cumulative measure, bonding predicts toward less sexual activity for each sex. The insignificance of religiosity was significant in and of itself. For the most part religiosity has been a consistent finding in previous studies; however, in this study it was only rarely a significant variable.

Nonconforming Behavior

This set of variables comprised acts engaged in by the individual which run counter to codified law if not parental expectations. All hypotheses were accepted for these variables with positive relationships generally in

the forties and fifties. Thus there was an overall positive relationship between nonconformity and sexual behavior. Correlations were higher for males than females on all measures as well as on the summary measure of nonconformity. On most of the measures as age and level of sexual activity increased, so did the mean score. Availability of drugs manifested one of the strongest relationships for both males and females indicating that as a person gets older, s/he is more able to obtain whatever s/he wants. While there is no measure of sexual availability, such an index might have led to a fuller understanding of adolescent sexuality.

Given the measures of nonconforming behavior it is not surprising to find that the community bonding index had a high negative correlation with sexual behavior since it is community personnel who are more likely to be the enforcers of the legal code. This is borne out in the correlations between the measures of nonconforming behavior and bonding.

In the multivariate analysis the measures were significant contributors to the variance and discriminating power except for alcohol use by females. The summary measure of nonconforming behavior was a consistently strong predictor and discriminator.

Stress

The measures of stress, while positively related to sexual behavior, were neither as strong as delinquent behavior measures nor as weak as the family structure

measures. Thus there was a positive but weak relationship between stress and sexual activity. Only self-regard and rage were higher for males. Thus our measures were somewhat equivocal though not entirely unexpected. Self-regard has more often been associated with the sexual activity for males. Males who are sexing are seen in a more positive light by peers, whereas, the reverse is true for females. This observation is borne out in the multivariate analysis where self-regard was predictive of male sexual activity and predicted membership for females in less sexually active groups.

The interrelationship of stress with sexual behavior is a bit more confusing because of the stress measures themselves. Most were geared toward syndromes of depression, guilt, and suicide. While depression and physical well-being hypotheses were not accepted for males, the overall relationship of stress to sexual behavior was accepted. In the regression model depression and affect deprivation were not predictive for females. We are unsure of how much stress is being influenced by factors such as not being loved or cared for by another person. Explaining the moderate correlation between stress and nonconforming behavior may be indicative of the negative correlation between stress and dating.

This concludes the analysis of the data. The next chapter will present a discussion of these results.

CHAPTER V

SUMMARY, DISCUSSION, LIMITATIONS AND IMPLICATIONS

Summary

This research has investigated how sexual activity is related to social and psychological variables, such as family structure, bonding, stress, and nonconforming behavior. The main findings of the study were: (1) Bivariate analysis demonstrated that with most variables of family structure, bonding, stress, and nonconformity significant relationships emerged; (2) Multiple regression analysis showed that dating, nonconforming behavior, and the interaction of stress and nonconforming behavior proved to be the most significant predictor variables; (3) Discriminant analysis demonstrated that dating was the most powerful discriminating variable and nonconformity and the interaction of stress and nonconformity were the next most powerful discriminators.

Discussion

The finding that dating and nonconforming behavior are the two variables that emerged in this study as the ones that are most strongly related to sexual activity is

consistent with previous findings to be found in marriage, family, and sociological literature. Nonconforming behavior represents the strongest predictive variable while dating is the strongest discriminating variable. Each in turn are significant predictors and discriminators of sexual activity. The use of dating as an explanatory factor of sexual behavior as compared with nonconforming behavior has received inconsistent attention over the years, even though the two are closely related. It can be noted that most of the literature dealing with adolescent sexuality either labels sexual behavior as nonconforming or associates sexual behavior with delinquent behavior. This study found that, in addition to nonconforming behavior, the dating variable is also of importance in explaining sexual activity.

To a lesser degree the bonding and stress variables also demonstrate association with sexual activity. Bonding is more often predictive of male sexual activity, while stress is a more powerful predictor of female sexual activity. Overall, stress is a more powerful discriminator of both male and female sexual behavior. Thus the usefulness of these variables depends on whether one is attempting to predict sexual activity or attempting to discriminate between levels of sexual activity.

The least predictive variables as a group are those comprising family structure. The use of these variables does help, however, to clarify the nature of the

relationship by taking into account the effects of social class, religious preference, sibling positioning, and aspirations toward marriage.

For instance, age and low social class are only slightly positive predictors of sexual activity for females, whereas being ambivalent towards marriage is a slightly negative predictor of sexual activity for females. This indicates that in some way the effects of social class operate to accelerate sexual activity while being unsure about marriage has a dampening effect on sexual activity. Weak positive predictors for the males are lack of religious preference, not intending to marry, and planning to marry before age twenty; weak negative predictors for females are being early born and wanting only one child. These weak positive predictors may be divided into two groups; those intending to marry before age twenty comprise a group of individuals who are most likely moving through the stages of dating and sexual activity at an earlier age. The other group consists of individuals who have a less restrictive attitude toward sexuality and who have less conventional aspiration towards marriage as manifested by lack of a religious preference and not intending to marry.

As a group, the variables of dating, nonconforming behavior, bonding, stress, and family structure are highly predictive variables and discriminators of sexual activity. The variance accounted for is 40 per cent for females and

56 per cent for males.

Understanding the status of role ambiguity of the adolescent may help to clarify the tripartite relationship which exists between nonconforming behavior, dating, and sexual activity. The individual moves through a maturation process during which the biophysical forces cause changes in the body and self-image of the adolescent. During this physical change, a psychological disengagement occurs and childhood-roles are being set aside. Adolescence is a period of being neither a child nor an adult. Being part of structures such as the family and the community guide the adolescent along lines dictated by adult normative expectations, while the peer group frequently represents a countervailing force leading to a new behavior. Thus a push and pull phenomenon exists for the adolescent whereby the adult normative system strives to keep the adolescent in conformance with its rules. On the other hand, adolescents in the anticipation of adult roles experiment with behaviors such as dating, drinking, smoking, and having sexual relations. This experimentation predisposes the adolescent toward activities that are prohibited to his/her age group. The particular role dilemma, combined with the use of drugs, is indicative of the existence of a sub-culture which is immersed in more intense levels of nonconforming behavior.

Dating is that institution of the society that is shaped by the normative system and may be used by the

adolescent for trying out the roles of intimacy with another individual. Dating though is differentially valued by parents; on the one hand their adolescent offspring learn to become involved with other people outside the family system. On the other hand dating and going steady, at ages twelve to fourteen, is sometimes looked upon unfavorably while dating and going steady at a later age are more in line with adult normative expectations. How far their offspring become involved and committed in a relationship is often ambiguous. Thus contradictory messages, feelings, and expectations and differential meanings of dating behavior emerge as age and sex specific phenomena that are often transmitted to the adolescent. These double-binding expectations may lead to a confusion of identity during the adolescent years. Dating, being an intimate activity of involvement with another individual implies its relationship to sexual activity. The degree to which an adolescent is sexual has to do with bonding toward a particular normative system--peer or adult, social and religious orientation, the degree to which an individual feels stressed, and has sexual opportunity. Engaging in acts which are status appropriate by legal code and having social value for adults may at the same time be acts regarded as inappropriate for adolescents because of legal age requirements or because of a conflict in values with the adult normative standards. Thus an adolescent's behavior can be viewed as conforming

or nonconforming depending on the referent group. This is again a peculiar status during this age of ambiguity.

An adolescent who is, for whatever reason, actively involved in activities outside the family structure is more likely to become involved in non-permissible activities than an adolescent who stays closely bonded to the family and community standards. At the same time this bonding, when not fulfilling the emotional and physical needs of the adolescent, can push the individual towards more involvement in activities (conforming or nonconforming, sexual or non-sexual) outside the family circle. Containment theory explains the regulation of conduct as a consequence of inner and outer control, thereby combining theories of self with theories of social structural factors to explain movement from one referent group to another.

If we view the scope of activities in which an adolescent may be involved outside the family, we can make a distinction between different types of activities, which may be acted out in the adolescents' meeting places such as school, restaurants, movie theatres, cars, and places of recreation. Social activities are those involving a group of peers, such as talking, eating, smoking, drug use, and kissing. Other heterosocial activities are being sexually intimate with another individual--dating provides the setting during which emotional and physical involvement may occur. The social institutions of adolescents vary

according to social class and geographic region--the main street hangout versus the coffee-house. As part of the typical activities that occur in these places, the adolescent further enhances his/her interpersonal competence with the opposite sex. Over time, this will lead to more involved heterosexual activity such as dating, which in turn frequently leads to a progression of involvement in higher levels of sexual activity.

Limitations

The present research is descriptive of one school system in Michigan. Thus generalizations beyond that system are limited.

The question measuring dating behavior employed in this study did not ask the respondent about experiences prior to the time of the survey; therefore, obtaining more extensive information regarding a respondent's dating behavior would most likely increase the predictive power of this variable. In addition, the related state of being in love was not measured in this survey. It could be hypothesized that the combination of going steady and being in love would factor together providing a stronger measure of intimate involvement with another person.

The use of an ordinal level variable as the dependent measure makes the regressions only tentatively acceptable. While debate still continues about the use of ordinal as interval level of measurement, it seems

appropriate to begin the partialing of variables in order to give some better clues for model building.

Another limitation is that the data are cross-sectional rather than being developmental. We are therefore able only to get a highly restrictive time perspective from the data rather than an overview of a developmental process over time.

Implications

This study has laid foundations for understanding the variables that are predictive and discriminative of adolescent sexual activity. The data of this research have shown the impact of dating, stress, bonding, and nonconforming behavior on adolescent sexual activity. Because of the use of so many variables, this research is important for indicating those variables that are and are not important in relation to sexual behavior.

The practical implications of this study are many. School personnel, such as teachers and counselors, may be able through the use of these data to understand more deeply the many aspects of adolescent sexual behavior and therefore respond more sensitively and readily. From this research we find that we can differentiate between three distinct levels or groups: (1) low sexually active group--those adolescents who are strongly tied to family and community; (2) average sexually active group--those adolescents who are involved in petting and are having infrequent intercourse

with one partner; (3) high sexually active group--those having frequent intercourse and with one or more partners. It is important to address the salient issues around sexuality in each of these groups so that the individuals have the information needed and are comfortable in the group and are able to make adaptations and transitions between groups. This information should be useful in guiding the programmatic planning for the sex education curricula; the information is also useful for counselors in understanding that sexual activity is not an isolated act, but rather one aspect of a set of behavior patterns.

Since only the second wave of data was used for this dissertation, the first wave could be subjected to the same type of analysis as a form of cross validation for each of the three school systems. Also, a cohort analysis can take place since thirteen year olds in the first wave are seventeen years old in the second wave. Such an analysis would assist in the understanding of one particular group of people. Going back into school system B for the collection of a third wave of data would be valuable. This would mean three collections of data within a decade in one school system on the vital issues of parent-child relations, drug use, stress, and sexual behavior.

The methods used in this study have demonstrated that the prediction and discrimination of sexual activity is possible among adolescents through survey methodology.

Using these methods appears to be useful in the examination of other problems of a sexual nature, i.e., examining contraceptive use and research into the determinants of adolescent pregnancy.

Once variables are gathered in a time ordered sequence, the development of path analytic models will be more appropriate. Such research will give a clearer understanding of what happens over time and of the interrelationship of the variables affecting sexual behavior. Further research using multivariate models and techniques is of utmost importance because of their power to control extraneous factors. Without such tools the researchers are left to report percentages and simple order relationships which are sometimes artifactual.

Level of measurement is another area needing further research. The development of a truly interval or ratio measure of sexual behavior needs to be attempted. Such a lead has already been taken by communication researchers in the development of ratio scales to measure social psychological attitudes.

The data of this study provide information from the perspective of the adolescent. Another useful extension to this study would be to collect information from parents and teachers in order to assess how they perceive adolescents and the normative standards the adolescents should be guided by. From these multiple perspectives a comprehensive theory

of the relationship of adolescent behavior to family and community can be built.

APPENDICES

APPENDIX A

APPENDIX A

METHODOLOGICAL CONSIDERATIONS

This section will focus on the development of measures of sexual behavior, construction of indexes, and description of statistical routines used in the analysis of the data.

Measurement of Sexual Behavior

While most of the studies employing sexual behavior as a dependent measure have been qualitative in nature, few if any have employed any theoretical justification for the use of their measure of sexual behavior. This is neither meant to be a criticism of the research per se nor does it necessarily reflect on the quality of the research. It does point to an often blind usage of measures of sexual behavior--researchers who do not know the consequences of using one measure versus another. The aim of the following presentation is to lend some perspective to a theoretical basis for the construction of a categorical measure of sexual behavior and to develop a continuous measure of sexual behavior which is as error free as possible.

A Model of Conformity

Cavan (1962:19) has presented a model of conformity based on the normal curve (see Figure A.1). Seven behavior types are described within the distribution of the normal curve; they are:

- A. Contraculture (delinquent)
- B. Extreme underconformity
- C. Minor underconformity
- D. Normal conformity
- E. Minor overconformity
- F. Extreme overconformity
- G. Contraculture (extreme goodness)

Normal conformity is described by Cavan (1962:18) as average behavior that basically conforms to the values of society. Conformity throughout this study is interpreted in relation to the adult normative standard rather than the ethnocentric standards set by peers. The response of the typical adolescent toward public, the public's reaction, the public's attitude, the adolescent's attitude toward self, and examples are contained underneath Figure A.1. One would not expect this curve to actually fit the distribution of behaviors by adolescents since available data indicate that most adolescents fall in the upper range of conformity. However, it has usefulness as a theoretical distribution of possible behaviors from which to make behavioral comparisons. An immediate problem of the grouping by Cavan is that her categories fall within standard deviation parameters, rather than being mutually exclusive. For instance, category C falls midway between the first and second negative standard deviation. Thus we are not sure if minor

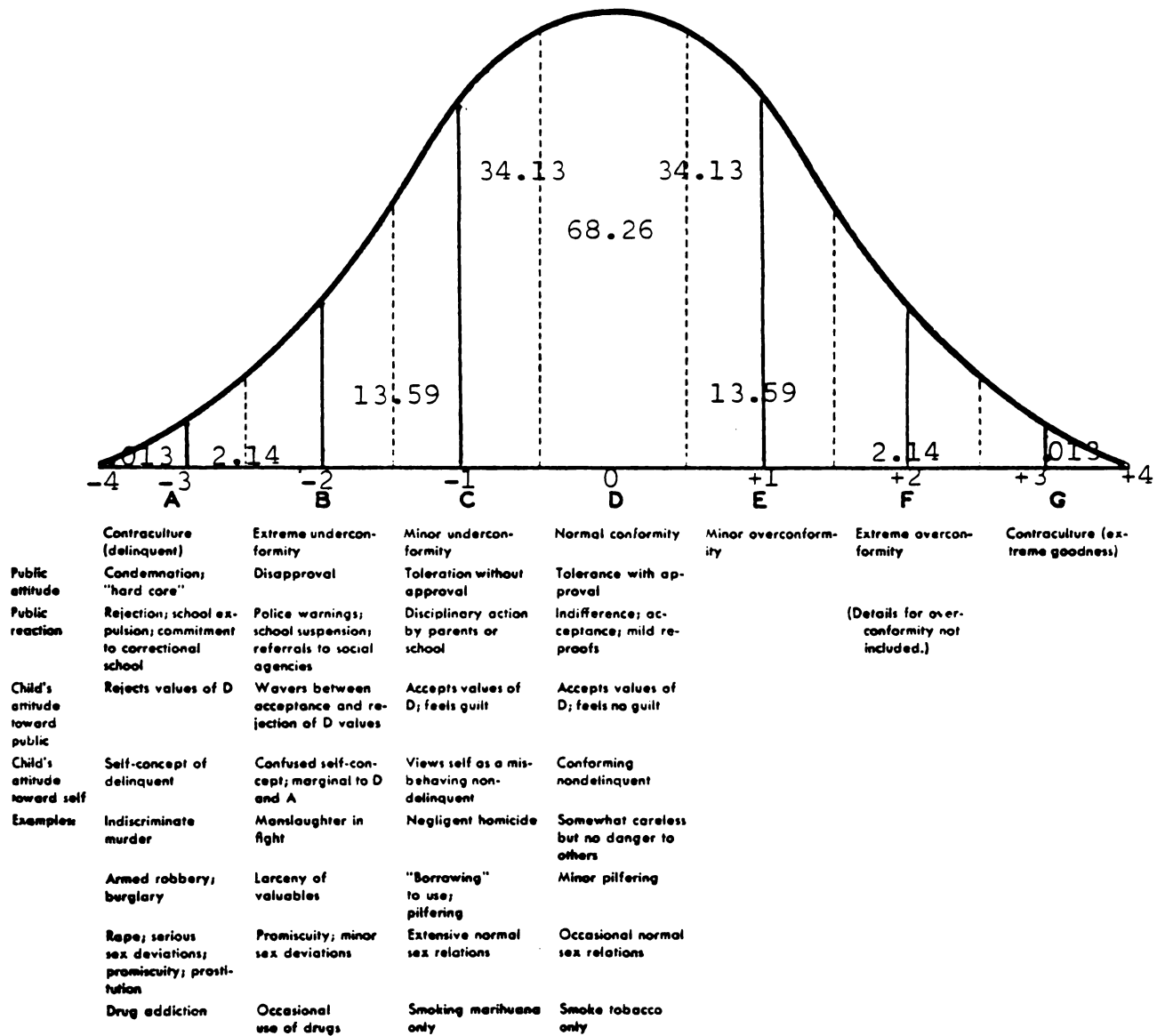


Figure A.1--Hypothetical Formulation of a Behavior Continuum for the Five Levels of Sexual Activity.

underconformity is meant to be within the "normal" range of behavior. Cavan's categories are represented by the dashed vertical lines. Solid vertical lines have been added to Figure 1 to depict more accurately the properties of the normal curve, that is, 68.26 per cent of the distribution lies within plus or minus one standard deviation, 13.59 per cent lies within $\pm 1-2$ S.D., 2.14 per cent lies within $\pm 2-3$ S.D., and .013 per cent is beyond ± 3 S.D. This still leaves us with seven categories; however, the range for normality has been greatly expanded and the range for contraculture behavior greatly reduced. The extreme and minor (under) conformity categories have also been reduced. Since the actual distribution of adolescent conformity is more likely to be positive skewed, one would expect to find more adolescents who are conforming than those who are not conforming.

For the purpose of this study category A is underrepresented since this is a group of individuals who have committed serious acts within the community and have probably been institutionalized as a result. Category G is represented in the sample; however, .013 per cent of 2,143 subjects is only twenty-eight individuals. Identifying these subjects would be well nigh impossible due to the skewness toward conformity so they can be subsumed under category F. Category A will be subsumed under B; that is, people who have not yet been adjudicated and who, by a simple twist of fate, are still in the school system. This

leaves us with five behavior groupings; they are:

1. High underconformity
2. Underconformity
3. Conformity
4. Overconformity
5. High overconformity

It is from these five categories and the assumption underlying this model that an index of sexual behavior is to be constructed.

Indexing of Sexual Behavior Items

An eight item index of heterosexual behavior devised specifically for adolescents will be the criterion measure in this study. Vener et al. (1972) and Vener and Stewart (1974) have reported on the use of this instrument in previous studies of adolescent sexual behavior. Similar scales developed and tested by Bentler (1968a, 1968b), Zuckerman (1973,), Brady and Levitt (1965), Podell and Perkins (1957), Thorne (1966a, 1966b) have been used by sex researchers. Face validity, inter-item correlations, item-total correlations, factor analysis, and test retest reliability have been the main type of procedures used for establishing the validity and reliability of these instruments.

In the present study two different types of scoring methods were employed to operationalize sexual behavior as a continuous measure. A sexual behavior index which involves a summing of the items as responded to and a weighted index employing the same items comprise the two continuous measures. Sexual behavior as a categorical variable with mutually exclusive categories corresponding to the five levels

of conformity previously extracted from Cavan is a third measure of sexual behavior. The nature of the measurement problem was to create a continuous measure of sexual behavior that would ordinally and unambiguously place individuals within the parameters of the five levels of conformity as described above. It was thought that in order to make the results of the different analyses employed comparable an individual must be consistently categorized at one level of behavior versus two levels. For example if a person had engaged in intercourse with one partner this person should be treated as such in both the categorical and continuous uses of measurement. Another way of stating this is that their ordinal rank should be the same on both measures.

The items used to develop our measurement of sexual behavior are:

- 55.¹ Held hands with someone of the opposite sex (not including relatives)?
56. Held your arm around or been held by someone of the opposite sex (not including relatives)?
57. Kissed or been kissed by someone of the opposite sex (not including relatives)?
58. Necked (prolonged kissing and hugging) (sic) with someone of the opposite sex?
59. Been involved in light petting (feeling above the waist) with someone of the opposite sex?
60. Been involved in heavy petting (feeling below the waist) with someone of the opposite sex?

¹The numbers preceding each item refers to the number of this item as they were dispersed in the actual opinionnaire.

The above questions were scored as (1) Never (2) Seldom
(3) Sometimes (4) Frequently (5) Very Frequently.

61. Have you ever gone all the way with someone of the opposite sex?

1. Never
2. Once
3. 3 to 5 times
4. 6 to 12 times
5. 13 or more times

62. With how many people of the opposite sex have you gone all the way?

1. I have not gone all the way.
2. One person
3. 2 to 3 people
4. 4 to 6 people
5. 7 or more people

Sexual Behavior as a Categorical Variable

In order to use the three statistical procedures of contingency analysis, one way analysis of variance, and discriminant analysis a categorical variable needed to be devised. Based upon the five levels of conformity described above it was decided that the conformity levels would be equated to the following types of sexual behavior:

<u>Computer Label</u>	<u>Level</u>	<u>Conformity Label</u>	<u>Type of Sexual Behavior</u>	<u>Variables</u>
GRP1=1	1	High Overconformity	No Sex	
GRP1=2	2	Overconformity	Kissing, hugging holding hands	55 to 57
GRP1=3	3	Conformity	Light and heavy petting	58 to 60
GRP1=4	4	Underconformity	Intercourse 1 partner	62
GRP1=5	5	High Underconformity	Intercourse 2 or more partners	62

Pictorially Figure A.2 shows how the program divided the index into five mutually exclusive categories. Variable 61 was not needed in the program since it dealt with the number of times a person had intercourse and that particular piece of information was not needed to construct the five groups.

The correlations for all subjects between the categorical measure (GRP1) and the continuous measure (SB) not using variable 61 is .851. This was thought to be too low of a correlation between measures which purported to be measuring the same thing. The correlation between GRP1 and SB when divided into the same categories as the other indices is $r=.850$. This further confirms the argument that two measures purportedly the same are actually measuring a different phenomenon. All correlations so far mentioned differ significantly from 1 at the .001 level. At this point it was decided to construct two weighted measures of sexual behavior to see if they improved the correspondence between the categorical variable and themselves.

Weighted Indexes of Sexual Behavior

One weighted index SXABC was the variables' values of two to five recoded to twos and then given the following weights:

X55 = 5
 X56 = 12
 X57 = 25
 X58 = 50
 X59 = 100
 X60 = 200
 X62 (2) = 400 (3 thru 5) = 800

RESPONSES

V A R I A B L E S	Number of Times				
	Never	Once	2-3	4-7	7 or more
	55				
	GRP1=1			GRP1=2	
	56			Kissing & Hugging	
	No Sex				
	57				
	58				
59				GRP1=3	
				Light & Heavy	
	60			Petting	
61	Not Used				
62	GRP1=1 No Sex	GRP1=4 Inter- course 1 Partner	GRP1=5 Intercourse Two or More Partners		

*GRP1=Level of Sexual Activity

Figure A.2.--Five Categories of Sexual Activity in Relation to the Eight Items of Sexual Behavior.

This index, when divided into the five groupings and correlated with GRP1, yielded as $r=1.00$. Thus the two variables were exactly the same. When SXABC was not categorized its correlations GRP1 was .919 which was significantly different from one at the .010 level.

The other measure (SXBEH) is a fully weighted index for each foil, thus using all of the available information. Its correlation with GRP1 when divided into comparable categories is $r=.969$. Its correlation with GRP1 when left as a continuous measure is $r=.633$. Thus the weighted measures are not comparable to each other since each are significantly different from 1 and significantly different from each other.

Since the concern of this investigation is with the highest level of sexual behavior engaged in by individuals and not how many times they participated in a particular behavior the weighted measure of SXABC was chosen as the continuous measure and GRP1 as the categorical measure.

Level of Measurement

The question must now be addressed regarding the level of measurement. The statistical procedures of regression, Pearsonian correlation, analysis of variance, factor analysis, and analysis of variance require intervally scaled variables. The above items used to construct the categorical and continuous measures are highly ordinal.

A Guttman Scale analysis was done for all subjects; males and females, and by age. Table A.1 gives the results of that analysis. All subgroups had good coefficients of reproducibility (above .9 is considered sufficient) and except for 12 year old females coefficients of scaleability were above were well above the .60 recommended level. It is not certain what contributed to the low scaleability for 12 year old females. Whether it is an artifact of this data set or that this scale may not be as useful with preadolescent females is not known.

Table A.1--Guttman Scale Analysis of the Eight Item Index of Sexual Behavior.

	Coefficient of Reproducibility	Coefficient of Scaleability	Number of Subjects	Number of Missing Subjects
All	.97	.89	2140	3
Males	.97	.89	1009	2
Females	.97	.89	1131	1
Males by Age				
M12	.97	.90	80	0
M13	.97	.90	180	0
M14	.96	.86	218	0
M15	.97	.88	190	0
M16	.96	.86	169	2
M17	.99	.94	172	0
Females by Age				
F12	.94	.70	104	0
F13	.96	.84	217	1
F14	.97	.89	217	0
F15	.97	.90	218	0
F16	.99	.95	190	0
F17	.98	.90	185	0

Given that the variables are highly ordinal the question which concerns us is how close do they come to being interval? Labinovitz (1967, 1968, and 1970) has attempted to answer this question using occupational ratings and suicide rates in order to provide clarification of this problem and to offer guidelines to users. Labinovitz (1970: 515) thinks that the use of ordinal variables as interval, even though there may be small errors, is offset by the use of more powerful, sensitive, better developed, and more clearly interpretable statistics with known sampling error. Given the monotonic nature of the variable occupational prestige Labinovitz assigned both random and nonrandom numbers to the rank orders of the variables. When compared with the "true" scoring system only negligible error resulted.

It is from this line of reasoning that the measurement in the present study has been designed. The use of two measures of sexual behavior--GRP1 the categorical measure and SXABC the continuous measure are thought to be best for this investigation. The fact that the higher the number of possible responses the more accurate is the estimation of the intervals for reducing error. Labinovitz (1970:521) explains that error variance diminishes more rapidly than the total variance as the number of points on the continuum increases. Also the standard deviations among the correlation coefficients decrease as the points increase.

While this study will not be able to answer the question concerning the validity of this ordinal measure of sexual behavior being used at an interval level an inspection of the correlations in Table A.2. will give the reader an indication that how a measure is scored affects its subsequent correlations. In Table A.2 we have six different scoring routines for sexual behavior. SB is an unweighted summed index; SXABC is weighted only for level of behavior; SXBEH is weighted for level and intensity; GRP1 is the mutually exclusive categorical variable and the same as SXABC when divided up; SB3 is SB split up according to the five categories; SXBER is SXBEH split up into categories. These six measures are correlated with themselves and age (X1), sex (X2), dating (X5), stress, and nonconforming behavior.

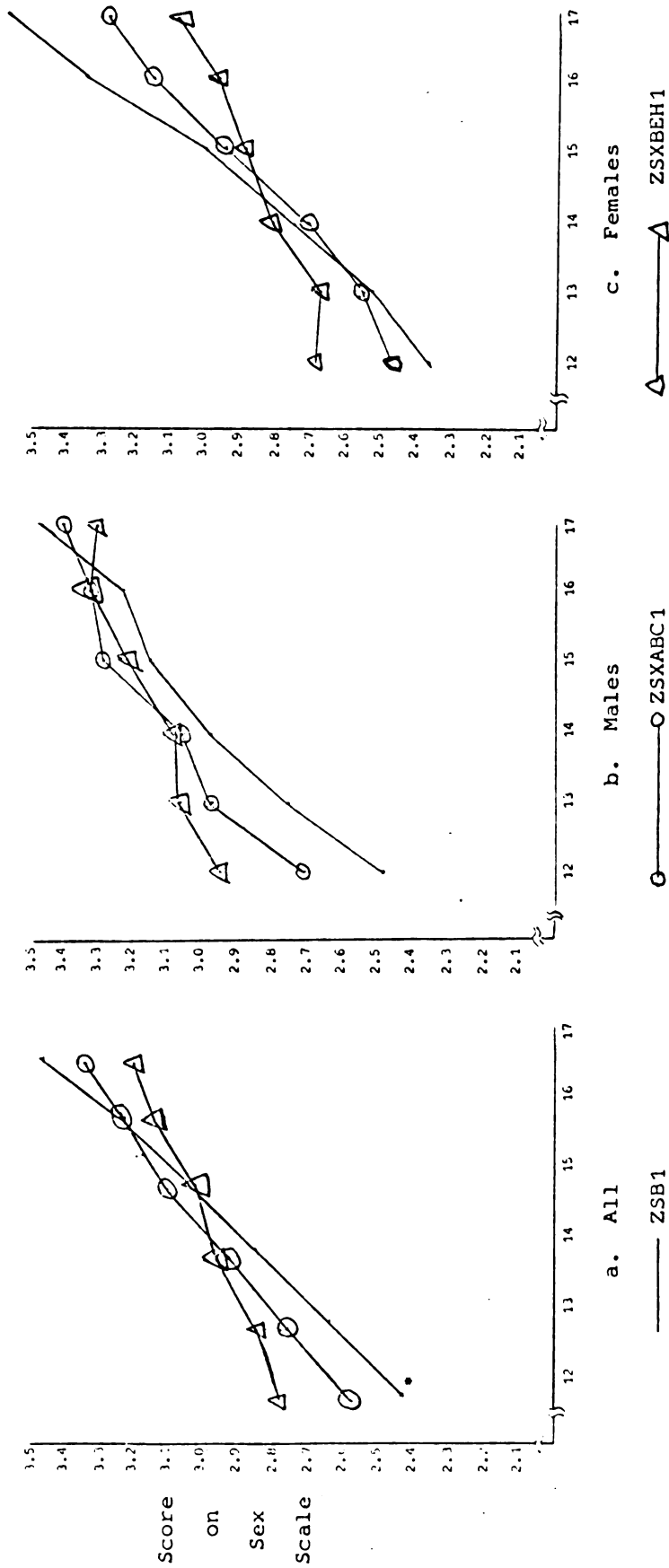
Figure A.3 is a plot of the three continuous measures of sexual behavior by age. Each variable was given a mean of three and a standard deviation of one. The plots in Figure A.3b and c reveal that SB is a more conservative measure at early ages for males whereas SB is a more liberal measure for females at later ages. SXBEH is more conservative measure at later ages for females but more liberal for males and females at early ages. SXABC appears to be the most moderate measure of sexual behavior given the other two measures. In only two instances for all three figures does SXABC stand alone--15 year old males and 14 year old females; otherwise, it is the same as within or between the values for the other two measures. SXABC is thought to best

Table A.2—Correlations Between Variables Measuring Sexual Behavior and Selected Variables for All Subjects, Males, and Females.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1)	1.000	.919	.839	.850	.614	.860	.331	.661	.268	.612
(2)	.000	1.000	.779	.812	.639	.797	.287	.584	.254	.562
(3)	.000	.000	1.000	.918	.718	.893	.240	.432	.269	.590
(4)	.000	.000	.000	1.000	.633	.969	.255	.515	.261	.580
(5)	.000	.000	.000	.000	1.000	.641	.132	.279	.203	.459
(6)	.000	.000	.000	.000	.000	1.000	.284	.545	.255	.579
(7)	.000	.000	.000	.000	.000	.000	1.000	.390	.015	.145
(8)	.000	.000	.000	.000	.000	.000	.000	1.000	.145	.379
(9)	.000	.000	.000	.000	.000	.000	.000	.000	1.000	.413
(10)	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.000

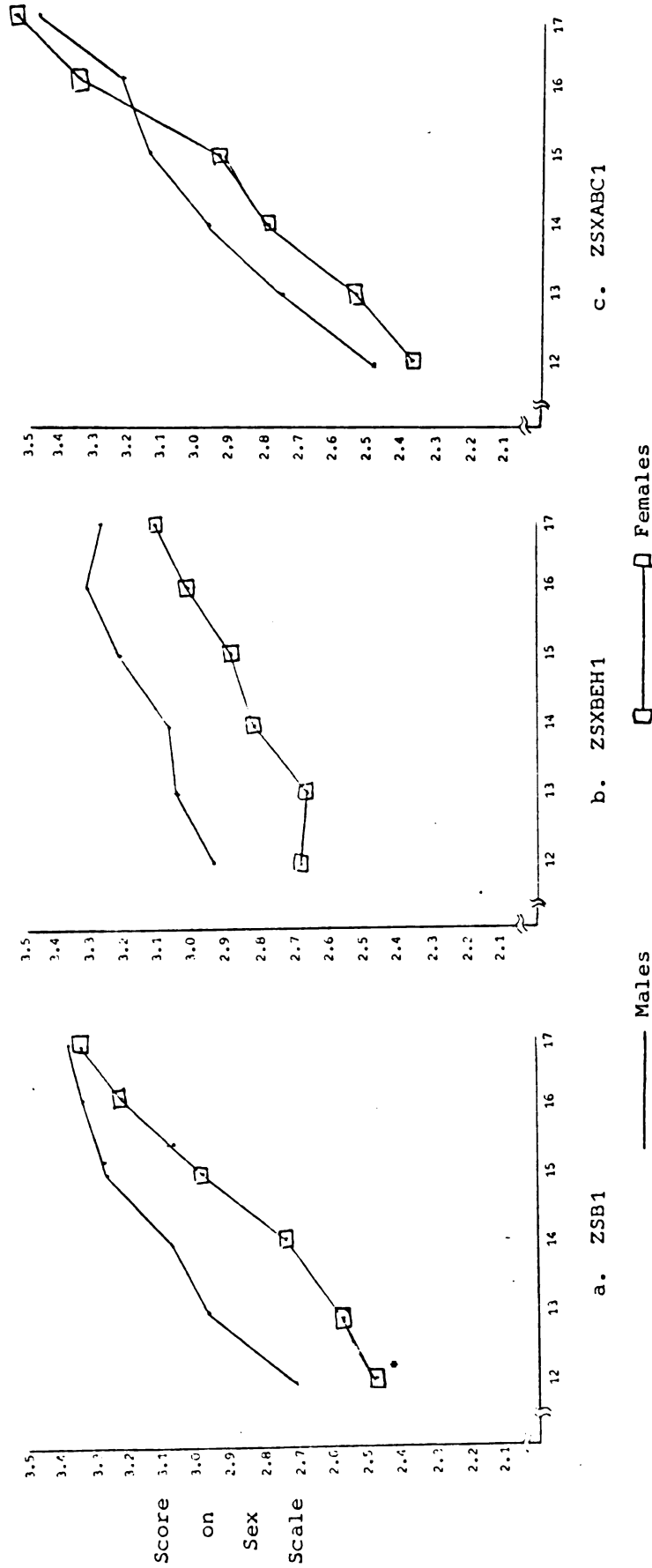
Males and Females										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1)	1.000	.927	.858	.865	.652	.875	.242	.636	.237	.654
(2)	.910	1.000	.793	.825	.670	.813	.223	.577	.265	.609
(3)	.824	.765	1.000	.940	.719	.919	.171	.490	.271	.648
(4)	.834	.796	.892	1.000	.650	.971	.196	.525	.263	.633
(5)	.590	.615	.727	.618	1.000	.665	.097	.323	.221	.512
(6)	.643	.776	.863	.968	.618	1.000	.227	.544	.258	.632
(7)	.412	.353	.318	.320	.194	.346	1.000	.320	-.024	.151
(8)	.700	.611	.455	.532	.268	.571	.451	1.000	.139	.411
(9)	.283	.248	.283	.268	.213	.261	.050	.148	1.000	.432
(10)	.563	.500	.489	.500	.337	.501	.137	.388	.417	1.000

(1) SB (2) SB3 (3) SWABC (4) GEP1 (5) SEXH (6) SOLER (7) X1 (8) X5 (9) STRESS (10) MONTH1
Males on upper diagonal and females on lower diagonal



* Actual values can be found in Appendix B

Figure A.3--Comparison of the Three Measures of Sexual Behavior (Standardized Mean = 3 and S.D. = 1) for All Subjects, Males, and Females by Age.



* Actual values can be found in Appendix B

Figure A.4--Comparison of Males and Females on the Three Measures of Sexual Behavior by Age.

represent the highest level of sexual behavior engaged in by an adolescent and it is with this measure that future analysis will be conducted. Figures A.4a, b, and c depict the three measures of sexual behavior charted for age and sex. Figure A.4a shows how SB interacts with females at ages 16 and 17 exceeding the behavior of males. Figure A.4b shows how males are at a more intense level of sexual activity throughout the ages studied. Figure A.4c shows how females are playing a catching up game around level of sexual behavior, whereas males tend to level out from ages 15 through seventeen. Three different scoring methods of the same behavior appear to represent three different trends concerning the sexual behavior of adolescents. This we hope will serve to caution sex researchers about making inferences from cross-sectional data without taking into consideration how they have measured their variable.

This concludes our discussion of the dependent variable and its measurement. Some other information pertaining to the sexual behavior items are found in the next section dealing with the construction of the indexes for the independent variables.

Specific Indexes and Item Descriptions

Application of the method of index construction described in Chapter III resulted in the development of indexes, most of which contain between 3 and 8 items. It is acknowledged that those indexes comprised of three or less items are somewhat weak, due to restriction of the score

range. Specifically, the indexes of Minister Perception and Suicide are considered less than powerful and should be so interpreted. They were, however, included following the assumption of Waisanen et al. (1966) that several questions are better than a single question in the measurement of a variable. The other variables that consist of single items, along with the various indexes, are described in the following sections under four broad categories of family structure, bonding, stress, and delinquent behavior.

Most index items require the respondent to select his/her answer from among the following five responses:²

1. Strongly Disagree
2. Disagree
3. Uncertain³
4. Agree
5. Strongly Agree

The method of index scoring which was decided upon, was to first count all of the missing items in the index,

²These same response categories were used in a number of indexes and will not be repeated in the descriptions of those specific indexes. However, other response categories were used in eight of the indexes and can be found in Appendix D.

³The response category "uncertain" was scored as a 3 in the index construction. This category of response is difficult to interpret because there is ambiguity regarding the conceptual meaning of "uncertain" and in the directions given to students for filling out the questionnaire; that is, students were instructed not to dwell on an item if they did not know how to respond--skip over the item. Some students may have used the uncertain category while others skipped over the item. Other issues concerning the use of Likert scales are explored by Guy and Norvel (1977).

sum the items in the index and divide by the number of items minus the number of missing values. For instance, if there are six items in the scale a count is first made of the number of missing items. In this study all blanks were regarded as missing values and given a value of 0:

Count $N = X_1 + X_2 + X_3 + X_4 + X_5 + X_6(0)$

After the count of missing values has been made (zeros in this instance), the index is summed and divided by the total number minus the missing values.

Compute $INDEX = (X_1 + X_2 + X_3 + X_4 + X_5 + X_6) / (6 - N)$

Using this method of scoring had two advantages. One, subjects with some missing responses to items in an index were not removed from the sample, and two, all index scores were standardized along a 1-5 continuum which made comparison of scores easier and also the same response range of the original items. A disadvantage to this method of index scoring is that a subject may have answered only one item in the index and the resulting index score would be the value obtained for that item.

Unfortunately, the two items comprising the delinquent self-image scale (X164 and X168) were at the end of the opinionnaire and were not responded to by 50 and 59 subjects respectively. It was decided to assign the mean, a value of two, to subjects who did not respond to this item so they would not be dropped from analysis which excluded subjects with missing data.

Remaining are the indexes, constructed from two possible methods--sexual activity was constructed using an absolute criteria based on identifiable levels of sexual behavior and the other indexes were based on a summing of the items. The index of sexual activity was not based on a summing of the items but rather on an ordinal criteria and verified with Guttman scaling techniques.

Summing of the indexes without using an absolute criteria based on an ordinal ranking does produce error as to how much a person is experiencing a given dimension of behavior. For example, the depression index (DEPRESS) was originally comprised of eight items (see pages 157 and Appendix D for fuller descriptions); after the factor analysis item thirteen "At times, I feel I'm not worth very much" was factored out thus leaving seven items. While the seven remaining items have factor loadings ranging from .34 to .52, a range of inter-item correlations from .19 to .44, item--total correlations ranging from .35 to .57, and an alpha of .77; we do not know at this time if the items possess a strong ordinal ranking, that is, scale to Guttman criteria as do the items in the sexual activity index.

Thus it may be questionable as to what phenomena is really being measured. All the indexes in this study, except for the sexual activity index, have the same basic problem when using a Leikert method of response; that is intense response to items low on an ordinal scale may

outweigh light to moderate responses high on the ordinal criteria. For instance, if we have seven items as described in the depression index above and a possible score range of one to five--one being low intensity on the item and five being high intensity--then a person can score high on the low items and low on the high items with the resultant score indicating a greater intensity on the overall index for a person who is not experiencing the high range of the index.

Solving this problem would involve several steps which are beyond the scope of this study. They are: (1) Establish validity, if possible, by the use of expert raters for the items; (2) Perform Guttman scaling on the items as a check against the ratings and for strength of consistent ordinality; (3) Weight items according to strength and ordinality or set up an absolute criteria as was done with the sexual activity scale.

While the methods used in this dissertation follow practices of the past as to indexing of items, the need for more accurate methods of indexing are apparent from the dilemma presented.

Thus, indexes in this study, other than sexual activity, have been simply summed. The following will be a presentation of the statistical procedures used in the verification of the indexes.

Table A.3 is a summary of the items comprising the Indexes, their factor loadings, range of correlations, and their interitem correlations. Items used alone in the study are found in the original opinionnaire in Appendix D.

This concludes the presentation of the indexes. The reliability of the indexes can be found in Table 3.3 as well as tests for nonadditivity.

TABLE A.3--FACTOR LOADINGS, RANGE OF INTER-ITEM CORRELATIONS, AND ITEM-TOTAL CORRELATIONS FOR ITEMS IN THE INDEXES.

		FL	RANGE OF I-I	I-T
SB	UNWEIGHTED MEASURE OF SEXUAL ACTIVITY(SB)			
55.	HELD HANDS WITH SOMEONE OF	.85	.37 TO .90	.77
56.	HELD YOUR ARM AROUND OR BEE.....	.91	.37 TO .90	.84
57.	KISSED OR BEEN KISSED BY SO.....	.90	.37 TO .90	.84
58.	NECKED (PROLONGED KISSING A.....	.60	.37 TO .90	.87
59.	BEEN INVOLVED IN LIGHT PETT.....	.65	.37 TO .90	.85
60.	BEEN INVOLVED IN HEAVY PETT.....	.75	.37 TO .90	.80
61.	HAVE YOU EVER GONE ALL THE	.89	.37 TO .90	.67
62.	WITH HOW MANY PEOPLE OF THE.....	.83	.37 TO .90	.63
PARCDC	PARENT CHILD COMMUNICATION(PARCDC)			
43.	MY PARENTS TALK TO ME,NOT	.42	.26 TO .63	.42
66.	WHEN I TELL MY PARENTS THE	.60	.26 TO .63	.54
96.	I CAN TALK TO MY PARENTS AN.....	.57	.26 TO .63	.70
98.	IT,S EASY FOR ME TO TALK TO.....	.50	.26 TO .63	.66
169.	MY PARENTS LISTEN TO WHAT I.....	.64	.26 TO .63	.63
173.	I CAN TALK TO MY PARENTS AB.....	.47	.26 TO .63	.62
PARACC	PARENTAL ACCEPTANCE(PARACC)			
27.	MY PARENTS ARE HAPPY I WAS	.52	.28 TO .56	.53
75.	MY PARENTS PRAISE AND ENCOU.....	.56	.28 TO .56	.55
93.	MY PARENTS CARE WHAT HAPPEN.....	.60	.28 TO .56	.58
112.	MY PARENTS ARE INTERESTED I.....	.61	.28 TO .56	.61
145.	MY PARENTS LIKE ME	.71	.28 TO .56	.68
148.	MY PARENTS ENJOY HAVING ME	.62	.28 TO .56	.61
166.	MY PARENTS THINK I'M AS GOO.....	.50	.28 TO .56	.48
PARCONG	PARENTAL CONGENIALITY(PARCONG)			
72.	MY PARENTS ENJOY BEING WITH.....	.74	.48 TO .70	.74
118.	HOW EASY IS IT FOR YOUR PAR.....	.72	.48 TO .70	.71
119.	RATE YOUR PARENTS GENERAL R.....	.77	.48 TO .70	.75
120.	MY PARENTS ARE CONSIDERATE	.73	.48 TO .70	.72
123.	MY PARENTS DO NICE THINGS F.....	.76	.48 TO .70	.75
126.	MY PARENTS SHOW AFFECTION F.....	.80	.48 TO .70	.77
127.	MY PARENTS AGREE ON IMPORTA.....	.62	.48 TO .70	.63

Table A.3--Factor Loadings, Range....(Continued).

POLICEP		POLICE PERCEPTION(POLICEP)			
18.	COMMUNITIES COULD NOT EXIST.....	.39	.13 TO	.52	.37
69.	POLICE SHOULD BE ADMIRER AN.....	.63	.13 TO	.52	.54
74.	A TYPICAL POLICE OFFICER IS.....	.63	.13 TO	.52	.58
117.	POLICE ARE FAIR IN THEIR TR.....	.59	.13 TO	.52	.57
146.	POLICE ARE HELPFUL IN TIME.....	.54	.13 TO	.52	.53
165.	POLICE SELDOM MISUSE THEIR.....	.32	.13 TO	.52	.41
170.	IT IS UNUSUAL FOR THE POLIC.....	.26	.13 TO	.52	.35
CHURCHP		CHURCH PERCEPTION(CHURCHP)			
29.	THE CHURCH (SYNAGOGUE) HELP.....	.49	.51 TO	.58	.62
41.	YOU CAN COUNT ON THE CHURCH.....	.43	.51 TO	.58	.59
95.	THE CHURCH (SYNAGOGUE) HAS.....	.53	.51 TO	.58	.64
TEACHRP		TEACHER PERCEPTION(TEACHRP)			
14.	MOST TEACHERS ARE INTERESTI.....	.36	.17 TO	.44	.51
24.	MOST TEACHERS ARE EASY TO T.....	.34	.17 TO	.44	.46
37.	MOST TEACHERS ARE INTERESTE.....	.59	.17 TO	.44	.50
70.	MATERIAL TAUGHT IN SCHOOL I.....	.45	.17 TO	.44	.47
99.	MOST TEACHERS TREAT STUDENT.....	.52	.17 TO	.44	.31
115.	MOST TEACHERS SHOULD BE RES.....	.31	.17 TO	.44	.47
149.	MOST TEACHERS ARE HELPFUL.....	.50	.17 TO	.44	.60
RELGITY		RELIGIOSITY(RELGITY)			
12.	WITH THE SECOND COMING OF C.....	.67	.33 TO	.62	.60
16.	I BELIEVE THERE IS A HELL W.....	.73	.33 TO	.62	.66
45.	I BELIEVE THERE IS A DIVINE.....	.75	.33 TO	.62	.53
116.	I BELIEVE THERE IS A LIFE A.....	.54	.33 TO	.62	.57
144.	TO,THE MOST IMPORTANT WORK.....	.61	.33 TO	.62	.58
150.	THE BIBLE IS GOD'S WORD AND.....	.58	.33 TO	.62	.69
174.	GOD IS A HEAVENLY FATHER WH.....	.69	.33 TO	.62	.61
AUTH		AUTHORITARIANISM(AUTH)			
25.	OBEDIENCE AND RESPECT FOR A.....	.41	.19 TO	.42	.49
65.	THERE IS HARDLY ANYONE LOWE.....	.33	.19 TO	.42	.33
68.	WHAT YOUTH NEEDS MOST IS ST.....	.45	.19 TO	.42	.42
108.	IT IS IMPORTANT TO TEACH CH.....	.31	.19 TO	.42	.44
114.	ANY GOOD PARENT SHOULD BE S.....	.45	.19 TO	.42	.43
151.	PEOPLE SHOULD HAVE MORE RES.....	.35	.19 TO	.42	.48
FAITH		FAITH IN PEOPLE(FAITH)			
9.	I HAVE FAITH IN PEOPLE.....	.31	.06 TO	.26	.27
17.	FEW PEOPLE ARE REALLY SELF.....	.34	.06 TO	.26	.24
40.	A PERSON USUALLY KNOWS WHO.....	.30	.06 TO	.26	.24
71.	IT'S EASY TO FIGURE OUT WHO.....	.40	.06 TO	.26	.30
73.	PEOPLE WILL SELDOM TAKE ADV.....	.44	.06 TO	.26	.30
100.	WHEN DEALING WITH PEOPLE, Y.....	.53	.06 TO	.26	.39
COLLO		COLLEGE ORIENTATION(COLLO)			
50.	DO YOU PLAN TO GRADUATE FRO.....	.71	.24 TO	.54	.32
51.	ARE YOU PLANNING TO GO TO C.....	.58	.24 TO	.54	.65
52.	HOW MANY OF YOUR FRIENDS PL.....	.56	.24 TO	.54	.53
53.	MY PARENTS.....	.62	.24 TO	.54	.47
54.	DO YOU THINK YOU HAVE THE A.....	.44	.24 TO	.54	.58
77.	MOST OF YOUR GRADES HAVE BE.....	.44	.24 TO	.54	.51

Table A.3--Factor Loadings, Range....(Continued).

MINSTRP		MINISTER PERCEPTION(MINSTRP)			
152.	MINISTERS, PRIESTS AND RABB.....	.32	.40 TO	.52	.47
167.	MINISTERS, PRIESTS AND RABB.....	.34	.40 TO	.52	.56
172.	MINISTERS, PRIESTS AND RABB.....	.38	.40 TO	.52	.52
SCHOOLP		SCHOOL PERCEPTION(SCHOOLP)			
35.	I AM PROUD OF MY SCHOOL	.30	.21 TO	.45	.41
32.	SCHOOL IS A FRIENDLY PLACE	.46	.21 TO	.45	.46
39.	I WOULD RATHER BE IN SCHOOL.....	.50	.21 TO	.45	.42
70.	MATERIAL TAUGHT IN SCHOOL I.....	.21	.21 TO	.45	.36
111.	I ENJOY GOING TO SCHOOL	.64	.21 TO	.45	.58
SMOKE		SMOKING CIGARETTES(SMOKE)			
19.	ON THE AVERAGE, HOW MANY CI.....	.73	.48 TO	.88	.75
20.	I INHALE WHEN I SMOKE	.88	.48 TO	.88	.81
21.	I ENJOY SMOKING CIGARETTES	.83	.48 TO	.88	.81
22.	ARE YOUR PARENTS SMOKERS	.12	.48 TO	.88	.18
23.	HOW MANY OF YOUR FRIENDS SM.....	.43	.48 TO	.88	.56
ALCOHOL		ALCOHOL CONSUMPTION(ALCOHOL)			
34.	BEER TO DRINK	.62	.51 TO	.56	.61
35.	WINE TO DRINK	.67	.51 TO	.56	.59
36.	WHISKEY TO DRINK	.64	.51 TO	.56	.63
DRUGS		DRUG USAGE (DRUGS)			
102.	MARIJUANA	.55	.26 TO	.77	.61
103.	HALLUCINOGENS OR PSYCHEDELI.....	.85	.26 TO	.77	.80
104.	AMPHETAMINES OR METHAMPHETA.....	.82	.26 TO	.77	.77
105.	HARD DRUGS (SUCH AS HEROIN,.....	.59	.26 TO	.77	.51
106.	SEDATIVES (DOWNERS SUCH AS	.75	.26 TO	.77	.78
AVALD		DRUG AVAILABILITY(AVALD)			
153.	MARIJUANA, HOW DIFFICULT WO.....	.70	.56 TO	.85	.75
154.	HALLUCINOGENS OR PSYCHEDELI.....	.86	.56 TO	.85	.87
155.	AMPHETAMINES OR METHAMPHETA.....	.88	.56 TO	.85	.88
156.	HARD DRUGS (SUCH AS HEROIN,.....	.73	.56 TO	.85	.76
157.	SEDATIVES (DOWNERS SUCH AS	.73	.56 TO	.85	.81
GENDEL		GENERAL DELINQUENCY(GENDEL)			
83.	TAKEN THINGS FROM STORES WI.....	.55	.16 TO	.58	.60
84.	DRIVEN A CAR WITHOUT THE OW.....	.48	.16 TO	.58	.49
85.	STOLEN MONEY	.53	.16 TO	.58	.55
86.	DRIVEN RECKLESSLY	.39	.16 TO	.58	.45
87.	DAMAGED OTHER PEOPLE'S PROP.....	.62	.16 TO	.58	.61
88.	BEATEN UP ON SOMEONE	.64	.16 TO	.58	.52
89.	RUN AWAY FROM HOME	.36	.16 TO	.58	.40
90.	GOTTEN INTO A FIST FIGHT	.64	.16 TO	.58	.52
91.	SKIPPED SCHOOL	.28	.16 TO	.58	.42
92.	USED A WEAPON AGAINST SOMEONE.....	.49	.16 TO	.58	.44

Table A.3--Factor Loadings, Range....(Continued).

SUICIDE SUICIDAL BEHAVIOR AND THOUGHTS(SUICIDE)					
121.	I HAVE TRIED TO KILL MYSELF.....	.44	.34 TO	.65	.41
139.	I HAVE THOUGHT OF DIFFERENT.....	.64	.34 TO	.65	.62
143.	HAVE YOU EVERR THOUGHT OF K.....	.75	.34 TO	.65	.67
PHYSWBR PHYSICAL WELL BEING(PHYSWBR)					
10.	I HAVE A GOOD APPETITE.....	.01	-.11 TO	.32	.05
30.	IT IS UNUSUAL FOR ME TO HAV.....	.40	-.11 TO	.32	.25
42.	I SELDOM GET TIRED.....	.33	-.11 TO	.32	.21
44.	I SELDOM HAVE AN UPSET STOM.....	.51	-.11 TO	.32	.35
94.	I HAVE NO PROBLEM SLEEPING.....	.31	-.11 TO	.32	.27
97.	I FEEL HEALTHY MOST OF THE.....	.42	-.11 TO	.32	.38
FAMILYC FAMILY CRISIS(FAMILYC)					
158.	SERIOUS ILLNESS IS A PROBLE.....	.53	.23 TO	.37	.41
159.	DRINKING IS A SERIOUS PROBL.....	.49	.23 TO	.37	.46
160.	DIVORCE OR THE LIKELIHOOD O.....	.53	.23 TO	.37	.44
161.	MENTAL ILLNESS IS CAUSING P.....	.64	.23 TO	.37	.52
162.	THE DEATH OF A FAMILY MEMBE.....	.52	.23 TO	.37	.44
163.	YOU HAVE BEEN BEATEN SO BAD.....	.54	.23 TO	.37	.45
DEPRESS DEPRESSION(DEPRESS)					
13.	AT TIMES, I FEEL I'M NOT WO.....	.21	.19 TO	.44	.42
38.	I AM BORED MOST OF THE TIME.....	.40	.19 TO	.44	.38
67.	I OFTEN FEEL LOW.....	.42	.19 TO	.44	.46
107.	SOMETIMES I DON'T CARE WHAT.....	.46	.19 TO	.44	.49
110.	FEW PEOPLE CARE HOW I FEEL.....	.52	.19 TO	.44	.43
113.	AT TIMES, I FEEL MY LIFE IS.....	.50	.19 TO	.44	.57
147.	UP TO NOW, MY LIFE HAS BEEN.....	.43	.19 TO	.44	.50
171.	I HAVE FREQUENTLY FELT UNLO.....	.34	.19 TO	.44	.51
AFFECTD AFFECT DEPRIVATION(AFFECTD)					
11.	I WISH PEOPLE WOULD PAY MOR.....	.44	.26 TO	.46	.37
28.	I DESPERATELY NEED SOMEONE.....	.44	.26 TO	.46	.44
31.	SOMETIMES I FEEL LIKE CRYIN.....	.60	.26 TO	.46	.52
33.	I NEED MORE AFFECTION FROM.....	.72	.26 TO	.46	.59
109.	I NEED TO FIND SOMEONE WHO.....	.55	.26 TO	.46	.49
RAGE RAGE(RAGE)					
47.	I HAVE FELT SO MAD THAT I C.....	.59	.22 TO	.52	.52
49.	I GEY SO ANGRY, I CAN THINK.....	.50	.22 TO	.52	.47
125.	I HAVE HAD THE URGE TO KILL.....	.42	.22 TO	.52	.45
138.	AT TIMES, I FEEL LIKE EXPLO.....	.47	.22 TO	.52	.48
140.	I HAVE HAD THE URGE TO BEAT.....	.67	.22 TO	.52	.58
142.	I HAVE FELT LIKE SMASHING T.....	.64	.22 TO	.52	.62
SELFR SELF REGARD(SELFR)					
78.	COMPARED TO OTHERS OF MY AG.....	.61	.20 TO	.52	.43
79.	LOOKS ARE.....	.67	.20 TO	.52	.52
80.	PERSONALITY IS.....	.56	.20 TO	.52	.47
81.	CLOTHES ARE.....	.49	.20 TO	.52	.44
82.	PHYSICAL HEALTH IS.....	.34	.20 TO	.52	.36
GUILT GUILT(GUILT)					
46.	I AM ASHAMED OF SOME OF THE.....	.49	.14 TO	.35	.39
48.	I HAVE FELT GUILTY ABOUT GE.....	.49	.14 TO	.35	.37
122.	I FEEL BAD BECAUSE I BETRAY.....	.46	.14 TO	.35	.37
137.	I AM ASHAMED OF SOME OF MY.....	.56	.14 TO	.35	.44
124.	I HAVE CAUSED OTHER PEOPLE.....	.37	.14 TO	.35	.33
141.	I HAVE BEEN EMBARRASSED BY.....	.46	.14 TO	.35	.42

FL=FACTOR LOADING 2-2=INTER-ITEM I-T=ITEM TOTAL

APPENDIX B

APPENDIX B

DESCRIPTIVE ANALYSIS

This presentation is intended to give the reader an idea of what the means, standard deviations, and correlations are for the populations under investigation. These tables then have a twofold purpose--one, a descriptive presentation for greater indepth study of the data, and two, the exact values for replication or further analytic processing by the reader.

Mean Differences and Standard Deviations

The following tables deal with the mean differences and standard deviations between sex, age, and level of sexual conformity. Presented with each table of means is the Wilks' Lambda U statistic (WLUS) which is similar to a oneway analysis of variance (Kerlinger and Pedhazur, 1973: 352-358).

Sex Differences

Table B.1 presents the means and standard deviations for males and females. The degrees of freedom for the WLUS are 1 and 1991. High F values indicate that significant differences exist between at least one pair of

means. The coding of variables is as follows: When DX is the prefix that means it is a dummy variable. For instance DX33 is the third answer to question number 3 and DX1752 is the second answer on variable 175. All questions are found in Appendix D. MX terms are interaction terms and can be found in the dictionary in Chapter 3.

Age

Table B.2a presents the means for all subjects on the primary variables. The degrees of freedom for the WLUS are 5 and 1987. Table B.2b presents the standard deviations.

Males by Age

Table B.3a presents the means for males with respect to age on the primary variables. The degrees of freedom for the WLUS are 5 and 921. Table B.3b presents the standard deviations.

Females by Age

Table B.4a presents the means for females with respect to age on the primary variables. The degrees of freedom are 5 and 1060. Table B.4b presents the standard deviations.

Five Levels of Sexual Behavior for All Subjects

Table B.5a presents the means for all subjects together with respect to the five levels of sexual conformity.

Level of Sexual Behavior	1 = Group 1 = No sexual activity
	2 = Group 2 = Hugging and kissing
	3 = Group 3 = Petting (light and/or heavy)
	4 = Group 4 = Intercourse with one partner
	5 = Group 5 = Intercourse with two or more partners

The degrees of freedom for the WLUS are 4 and 1998. Table B.5b presents the standard deviations.

Five Levels of Sexual Behavior for Males

Table B.6a presents the means for males with respect to the five levels of sexual conformity. The degrees of freedom for the WLUS are 4 and 992. Table B.6b presents the standard deviations.

Five Levels of Sexual Behavior for Females

Table B.7a presents the means for females with respect to the five levels of sexual conformity. The degrees of freedom for the WLUS are 4 and 1061. Table B.7b presents the standard deviations.

Pearson Correlations

The following correlation matrices are presented for all subjects, then for males and females separately.

All Subjects

The following matrix, Table B.8 was generated from a SPSS version 6.04 regression run. Number of subjects is 2111. This matrix is for the combined male and female groups. Variables preceded by a DX are dummy variables and those preceded by MX are interaction terms. Curvilinear terms are X1S and X5S to DELBEHS. Use of the dictionary in Chapter 3 and the actual questions in Appendix D will help to decode the variable names.

Males

The number of subjects in Table B.9 is 996. This matrix is for males age 12 to 17.

Females

The number of subjects in Table B.10 is 1115.

This matrix is for females age 12 to 17.

Means and Standard Deviation

Table B.11 contains the means and standard deviations for the above matrices.

Table B.1--Means, Standard Deviations, and Wilks' Lambda for Males and Females.

GROUP COUNTS									
	GROUP MALE	1	GROUP FEMALE	2	TOTAL				
COUNT	927.0000		1066.0000		1993.0000				
MEANS									
	GROUP MALE	1	GROUP FEMALE	2	TOTAL				
STANDARD DEVIATIONS									
	GROUP MALE	1	GROUP FEMALE	2	TOTAL				
						WILKS' LAMBDA		F	
X1	3.7292		3.6492		3.6864	1.5645	1.5642	1.5660	.9993
X3	2.4603		2.3565		2.4084	1.2775	1.2789	1.3147	.9990
DX31	.2603		.3255		.2929	.4505	.4688	.4608	.9978
DX12	.3117		.3124		.3121	.4635	.4637	.4635	1.0000
DX13	.1467		.1104		.1286	.3772	.3706	.3773	.9990
DX14	.1715		.1735		.1726	.3772	.3789	.3780	1.0000
X4	1.2270		1.2270		1.2270	.4559	.4559	.4559	.9999
DX41	.2692		.2692		.2692	.4408	.4408	.4408	1.0000
DX43	.0063		.0063		.0063	.0063	.0063	.0063	1.0000
DX44	.4972		.4972		.4972	.4972	.4972	.4972	1.0000
X5	2.2270		2.2270		2.2270	.4559	.4559	.4559	.9999
DX51	.2692		.2692		.2692	.4408	.4408	.4408	1.0000
DX52	.2692		.2692		.2692	.4408	.4408	.4408	1.0000
DX53	.2692		.2692		.2692	.4408	.4408	.4408	1.0000
DX54	.2692		.2692		.2692	.4408	.4408	.4408	1.0000
DX55	.2692		.2692		.2692	.4408	.4408	.4408	1.0000
X6	3.7611		3.7611		3.7611	.4559	.4559	.4559	.9999
DX61	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX62	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX63	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX64	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX65	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
X7	3.7611		3.7611		3.7611	.4559	.4559	.4559	.9999
DX71	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX72	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX73	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX74	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX75	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
X8	3.7611		3.7611		3.7611	.4559	.4559	.4559	.9999
DX81	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX82	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX83	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX84	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
X76	2.2270		2.2270		2.2270	.4559	.4559	.4559	.9999
DX761	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX762	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX763	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX764	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
X175	3.7611		3.7611		3.7611	.4559	.4559	.4559	.9999
DX1751	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX1752	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX1753	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX1754	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX1755	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
X176	3.7611		3.7611		3.7611	.4559	.4559	.4559	.9999
DX1761	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX1762	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX1763	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX1764	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DX1765	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
BONDING	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
FB	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
PARCDE	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
PARACC	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
PARCONG	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
CB	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
POLICEP	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
CHURCHP	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
MINSTRP	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
SCHOOLP	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
TEACHAP	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
RELIGTY	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
AUTH	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
FAITH	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
COLLO	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
CLASSES	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DELSC	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
SMOKE	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
ALCOHOL	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DRUGS	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
AVAIL	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
GENDL	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
STRESS	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
PSTRESS	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
SUICIDE	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
PHYSWHR	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
SKINSSC	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
FAMILY	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
DEPHES	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
AFFECTO	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
RAGE	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
SELFR	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
GUILT	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
XSS	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
BONDG	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
STRES	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
NCHENS	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
XSS	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
MX1XSHS	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
MX1XSHD	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
MXSD	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
GRP	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
ZSR1	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
ZSRARC1	.0111		.0111		.0111	.1422	.1422	.1422	1.0000
ZSRBEM1	.0111		.0111		.0111	.1422	.1422	.1422	1.0000

	GROUP 1 12 OR LE SS	GROUP 2 13	GROUP 3 14	GROUP 4 15	GROUP 5 16	GROUP 6 17 OR NO RE	TOTAL
COUNT	169.0000	364.0000	407.0000	376.0000	337.0000	340.0000	1993.0000

	GROUP 1 12 OR LE SS	GROUP 2 13	GROUP 3 14	GROUP 4 15	GROUP 5 16	GROUP 6 17 OR #0	TOTAL	F
X2	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X3	2.3344	2.3604	2.3054	2.3346	2.3223	2.3394	2.3349	2.8300
DX31	2.3344	2.3604	2.3054	2.3346	2.3223	2.3394	2.3349	2.8300
DX32	2.3344	2.3604	2.3054	2.3346	2.3223	2.3394	2.3349	2.8300
DX33	2.3344	2.3604	2.3054	2.3346	2.3223	2.3394	2.3349	2.8300
DX34	2.3344	2.3604	2.3054	2.3346	2.3223	2.3394	2.3349	2.8300
X4	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX41	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX42	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX43	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX44	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X5	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX51	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX52	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX53	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX54	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX55	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X6	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957
DX61	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957
DX62	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957
DX63	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957
DX64	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957
DX65	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957	3.7957
X7	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977
DX71	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977
DX72	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977
DX73	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977
DX74	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977
DX75	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977	3.4977
X8	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605
DX81	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605
DX82	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605
DX83	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605
DX84	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605
DX85	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605	3.6605
X9	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544
DX91	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544
DX92	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544
DX93	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544
DX94	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544
DX95	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544	2.2544
X10	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX101	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX102	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX103	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX104	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX105	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X11	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX111	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX112	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX113	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX114	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX115	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X12	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX121	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX122	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX123	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX124	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX125	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X13	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX131	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX132	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX133	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX134	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX135	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X14	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX141	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX142	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX143	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX144	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX145	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X15	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX151	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX152	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX153	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX154	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX155	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X16	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX161	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX162	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX163	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX164	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX165	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X17	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX171	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX172	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX173	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX174	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX175	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X18	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX181	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX182	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX183	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX184	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX185	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X19	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX191	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX192	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX193	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX194	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX195	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X20	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX201	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX202	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX203	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX204	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX205	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X21	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX211	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX212	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX213	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX214	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX215	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X22	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX221	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX222	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX223	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX224	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX225	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
X23	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX231	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX232	1.5799	1.5632	1.5061	1.5346	1.5223	1.5394	1.5349	1.8304
DX233	1.5799	1.5632	1.5061					

B.2b--Standard Deviations for All Subjects by Age.

STANDARD DEVIATIONS

	GROUP 12 OR 15	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17 OR 18	TOTAL
X2	1.4950	1.4967	1.5006	1.4995	1.5002	1.4999	1.4989
X3	1.3400	1.2896	1.3000	1.3173	1.3279	1.3284	1.3167
DX31	1.4551	1.4271	1.4609	1.4756	1.4689	1.4778	1.4608
DX32	1.4446	1.4255	1.4609	1.4756	1.4689	1.4778	1.4608
DX33	1.3326	1.3286	1.3396	1.3187	1.3168	1.3209	1.3273
DX34	1.4553	1.4090	1.3663	1.4092	1.3646	1.3517	1.3780
X4	1.4553	1.4352	1.4434	1.4432	1.4446	1.4446	1.4359
DX41	1.4677	1.4398	1.4598	1.4305	1.4243	1.4615	1.4464
DX42	1.0000	1.0740	1.0983	1.0729	1.0941	1.0766	1.0805
DX43	1.4506	1.4003	1.4942	1.5003	1.5006	1.5007	1.4686
DX44	1.4523	1.4352	1.4434	1.4438	1.4446	1.4446	1.4359
X5	1.8861	1.9722	1.0552	1.9687	1.0372	1.0278	1.0918
DX51	1.4223	1.4943	1.4823	1.4284	1.3806	1.3081	1.4734
DX52	1.2474	1.4070	1.4543	1.4826	1.4446	1.4337	1.4390
DX53	1.3309	1.3447	1.4139	1.4402	1.4846	1.4900	1.4409
DX54	1.2130	1.2579	1.3229	1.3053	1.3589	1.3961	1.3244
DX55	1.0000	1.0524	1.0859	1.0891	1.1699	1.2242	1.1314
X6	1.1557	1.1487	1.1105	1.1396	1.1663	1.1531	1.1427
DX61	1.1525	1.1555	1.1302	1.1445	1.1615	1.1206	1.1437
DX62	1.3501	1.3447	1.3342	1.3484	1.3478	1.3688	1.3476
DX63	1.4366	1.4147	1.4352	1.4060	1.4185	1.4337	1.4270
DX64	1.4147	1.4352	1.4352	1.4410	1.4205	1.4092	1.4271
DX65	1.4617	1.4222	1.4787	1.4626	1.4868	1.4812	1.4686
X7	1.1525	1.1655	1.1331	1.1445	1.1615	1.1144	1.1637
DX71	1.4201	1.4287	1.4204	1.4614	1.4366	1.4479	1.4392
DX72	1.4334	1.4486	1.4407	1.4223	1.4462	1.4589	1.4422
DX73	1.3832	1.4147	1.4367	1.3919	1.3928	1.4112	1.4086
DX74	1.4551	1.4255	1.4251	1.4351	1.4366	1.3961	1.4271
DX75	1.7268	1.7209	1.7161	1.7031	1.7099	1.7400	1.7181
X8	1.1525	1.1555	1.1302	1.1445	1.1615	1.1319	1.1453
DX81	1.2765	1.2668	1.2981	1.2713	1.2576	1.3081	1.2809
DX82	1.2765	1.2836	1.2312	1.2495	1.2252	1.2841	1.2573
DX83	1.3930	1.3925	1.3778	1.3740	1.3589	1.4092	1.3636
DX84	1.6524	1.8652	1.8724	1.9157	1.9095	1.8806	1.8874
DX85	1.3439	1.3639	1.3691	1.4153	1.4185	1.4386	1.3980
DX86	1.4440	1.4387	1.5005	1.5007	1.5001	1.5005	1.5001
DX87	1.3882	1.3925	1.4281	1.3672	1.3997	1.3857	1.3984
DX88	1.2673	1.3078	1.3078	1.2909	1.2936	1.2936	1.2888
X1751	1.5253	1.5279	1.5726	1.5457	1.5259	1.5362	1.5415
DX1751	1.3166	1.3339	1.3622	1.3534	1.3633	1.3633	1.3633
DX1752	1.4938	1.4938	1.4938	1.4938	1.4938	1.4938	1.4938
DX1753	1.1438	1.1438	1.1438	1.1438	1.1438	1.1438	1.1438
DX1754	1.2336	1.2336	1.2336	1.2336	1.2336	1.2336	1.2336
DX1755	1.4721	1.4721	1.4721	1.4721	1.4721	1.4721	1.4721
X176	1.4039	1.1360	1.1360	1.1360	1.1360	1.1360	1.1360
DX1761	1.4148	1.3645	1.3525	1.3457	1.3589	1.3394	1.3587
DX1762	1.1851	1.1920	1.1550	1.1621	1.1729	1.1920	1.1920
DX1763	1.2346	1.2624	1.2770	1.2299	1.2936	1.2242	1.2573
DX1764	1.4976	1.4999	1.5001	1.5001	1.5004	1.4976	1.5000
DX1765	1.4334	1.4352	1.4172	1.4060	1.3974	1.4153	1.4162
BONDING	1.5573	1.5242	1.5587	1.5539	1.5717	1.4927	1.5451
FB	1.6400	1.6703	1.6549	1.6957	1.7444	1.6474	1.6817
PARCDE	1.8100	1.8470	1.8640	1.8791	1.9629	1.8550	1.8844
PARACC	1.6717	1.7118	1.6826	1.7036	1.7095	1.6345	1.6887
PARCONG	1.9578	1.8363	1.8820	1.9713	1.9535	1.9151	1.9298
CB	1.6302	1.5601	1.6270	1.6009	1.6017	1.5722	1.5955
POLICEP	1.7371	1.7824	1.7824	1.7203	1.7481	1.7176	1.7740
CHURCHP	1.0231	1.9233	1.9915	1.9823	1.9626	1.9577	1.9740
MINTSRP	1.6653	1.7899	1.7899	1.7853	1.8060	1.7283	1.8021
SCHOOLP	1.9336	1.7899	1.7899	1.7853	1.8060	1.7283	1.8021
TEACHAP	1.9747	1.8425	1.9149	1.8559	1.9378	1.8194	1.8911
RELGITY	1.8783	1.7607	1.8562	1.8567	1.9478	1.9340	1.8740
AUTH	1.7086	1.6430	1.6747	1.6660	1.7036	1.6778	1.6803
FAITH	1.5450	1.5410	1.5904	1.5734	1.5857	1.5478	1.5748
COLLO	1.6689	1.7289	1.7352	1.8063	1.8225	1.8058	1.7736
CLASSES	1.8700	1.9570	1.8924	1.9442	1.9057	1.9335	1.9257
NCBEM	1.5480	1.5558	1.6786	1.6656	1.7485	1.7100	1.6717
DELSG	1.9066	1.9296	1.9418	1.8942	1.9132	1.8175	1.9079
SMOKE	1.8534	1.9675	1.0203	1.1014	1.2160	1.1056	1.0766
ALCOHOL	1.0057	1.9777	1.0866	1.0839	1.0662	1.1168	1.0679
DRUGS	1.4743	1.4853	1.7510	1.8236	1.9797	1.0496	1.8302
AVALD	1.8703	1.0304	1.2076	1.1340	1.1379	1.1675	1.2200
GENDEL	1.6280	1.6072	1.7817	1.7234	1.7619	1.6911	1.7216
STRESS	1.4784	1.4826	1.4901	1.4920	1.5351	1.4440	1.4890
PSTRESS	1.5364	1.5365	1.5791	1.5762	1.6172	1.5407	1.5680
SUICIDE	1.7129	1.7515	1.8032	1.7510	1.8372	1.7184	1.7737
PHYSWER	1.6706	1.6677	1.6658	1.7044	1.6818	1.6937	1.6810
ESTRESS	1.5114	1.5781	1.5460	1.5214	1.5830	1.4977	1.5495
FAMILYC	1.7384	1.9126	1.8165	1.7278	1.7755	1.6785	1.8064
DEPRESS	1.7384	1.7380	1.7036	1.6846	1.7665	1.6071	1.7342
AFFECTO	1.5924	1.8813	1.7486	1.7666	1.8507	1.8144	1.8422
RAGE	1.9044	1.7976	1.8289	1.8110	1.8139	1.7390	1.8109
SELF P	1.5611	1.5516	1.5448	1.5214	1.5363	1.5473	1.5433
GUILT	1.6790	1.6075	1.6634	1.6194	1.6478	1.6380	1.6396
XSS	1.5591	1.4428	1.1586	1.4311	1.6197	1.0155	1.4927
BONDS	1.9068	1.7799	1.9068	1.7966	1.9313	1.4373	1.8106
STRESS	1.3416	1.3108	1.4292	1.4450	1.6903	1.1541	1.2205
NCBEMS	1.2364	1.2733	1.0953	1.2035	1.4674	1.2442	1.0049
XSS	1.4354	1.4114	1.4924	1.4755	1.5436	1.1436	1.2704
MX1XES	1.4142	1.7252	1.1323	1.2040	1.2939	1.1873	1.4484
MX1XSD	1.9411	1.1541	1.3774	1.3571	1.4414	1.7521	1.2863
XSD	1.0231	1.9225	1.2824	1.2613	1.3422	1.1374	1.2471
GRP1	1.0476	1.1308	1.1066	1.0856	1.0608	1.0290	1.0679
ZSP1	1.6094	1.8493	1.4668	1.9048	1.0248	1.0713	1.0679
ZSPARC1	1.7694	1.8493	1.9331	1.0083	1.0248	1.0147	1.0614
ZSPBEH1	1.7696	1.8311	1.9477	1.9746	1.0956	1.0885	1.9727

B.3a--Means and Wilks' Lambda for Males by Age.

GROUP COUNTS

	GROUP 1 12 OR LE SS	GROUP 2 13	GROUP 3 14	GROUP 4 15	GROUP 5 16	GROUP 6 17 OR HO RE	TOTAL
COUNT	71.0000	159.0000	201.0000	175.0000	161.0000	160.0000	927.0000

MEANS

	GROUP 1 12 OR LE SS	GROUP 2 13	GROUP 3 14	GROUP 4 15	GROUP 5 16	GROUP 6 17 OR HO RE	TOTAL	WILKS' LAMBDA F
X2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	.0000
X3	2.4507	2.5912	2.4527	2.4457	2.4949	2.3750	2.4653	.4839
DX31	.3340	.2013	.2935	.3200	.2609	.3042	.2626	1.6858
DX32	.0676	.0774	.0335	.0286	.0168	.0187	.0318	1.0641
DX33	.0845	.1509	.1393	.1486	.1739	.1500	.1467	.6532
DX34	.2254	.1698	.1841	.1714	.1615	.1437	.1715	.5294
X4	1.3380	1.3019	1.2687	1.3200	1.2857	1.2375	1.2869	.8494
DX41	.1944	.2706	.3256	.2286	.2256	.1000	.2503	2.3436
DX42	.0000	.0000	.0050	.0057	.0186	.0063	.0063	.0568
DX43	.2676	.4277	.4030	.4457	.4720	.4356	.4261	2.0076
DX44	.3380	.3119	.2695	.3200	.2877	.2375	.3066	1.8494
X5	1.6780	1.7044	2.1045	2.1714	2.2913	2.6563	2.1532	3.1858
DX51	.1765	.1786	.1031	.1714	.2236	.2500	.1852	3.0721
DX52	.0704	.2075	.2886	.1714	.1043	.2625	.1718	.7062
DX53	.1408	.1509	.2090	.2657	.3478	.4043	.2665	.6015
DX54	.0423	.0566	.1194	.0686	.1056	.1437	.0949	.5135
DX55	.0000	.0063	.0100	.0057	.0186	.0375	.0140	.1846
X6	3.6338	3.5005	3.7861	3.7829	3.7019	3.7500	3.7691	.6726
DX61	.0423	.0189	.0100	.0114	.0248	.0187	.0183	.7756
DX62	.1600	.1195	.1343	.1513	.1739	.1563	.1489	.5084
DX63	.3394	.2264	.2537	.2457	.2236	.2437	.2395	.1201
DX64	.2113	.2327	.2637	.2171	.2298	.2188	.2319	.3350
DX65	.3350	.4025	.3383	.3714	.3478	.3625	.3614	.3988
X7	3.3236	3.3636	3.4577	3.3600	3.3913	3.2813	3.3743	.4205
DX71	.0423	.0189	.0100	.0114	.0248	.0187	.0183	.7756
DX72	.2817	.3327	.2339	.2000	.2622	.2511	.2611	1.2419
DX73	.3394	.3333	.2786	.2057	.2921	.2933	.2772	.6119
DX74	.1631	.1761	.2736	.2229	.1863	.1949	.2287	.3347
DX75	.2535	.2900	.3631	.2600	.2483	.2675	.2850	.7607
DX81	.0423	.0189	.0100	.0114	.0248	.0187	.0183	.7756
DX82	.1600	.1195	.1343	.1513	.1739	.1563	.1489	.5084
DX83	.3394	.2264	.2537	.2457	.2236	.2437	.2395	.1201
DX84	.2113	.2327	.2637	.2171	.2298	.2188	.2319	.3350
X76	2.3208	2.3208	2.3134	2.3143	2.1801	2.1750	2.2686	.9167
DX761	.1600	.1509	.1841	.2224	.2609	.2637	.1623	1.1611
DX762	.4930	.4969	.4279	.4886	.4224	.4000	.4315	1.1777
DX763	.1472	.2390	.2786	.2514	.2050	.2312	.2395	.7255
DX764	.1247	.1066	.1065	.1257	.0994	.1079	.1079	.3303
X175	3.2254	2.9951	3.2239	3.1600	3.0683	3.1000	3.1066	.0270
DX1751	.0986	.0606	.0606	.1029	.0663	.1187	.0934	1.1166
DX1752	.3944	.4025	.3632	.4114	.5155	.4197	.4175	.8124
DX1753	.0141	.0314	.0308	.0514	.0248	.0503	.0375	.7645
DX1754	.1600	.1572	.0896	.0914	.0683	.0683	.0999	.2801
DX1755	.2239	.2190	.3733	.3429	.3200	.3429	.3429	1.5105
X176	3.2266	3.3399	3.4527	3.4400	3.4100	3.4600	3.4600	.2406
DX1761	.0239	.0201	.0346	.0174	.0100	.0503	.0561	1.2415
DX1762	.0239	.0266	.0346	.0314	.0409	.0075	.0075	.9917
DX1763	.0239	.0266	.0346	.0314	.0409	.0075	.0075	.9917
DX1764	.0239	.0266	.0346	.0314	.0409	.0075	.0075	.9917
DX1765	.0239	.0266	.0346	.0314	.0409	.0075	.0075	.9917
BONDING	.1230	.1270	.1940	.2000	.1304	.1750	.1642	.5547
FB	.1230	.1270	.1940	.2000	.1304	.1750	.1642	.5547
PARCOC	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
PARACC	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
PARCONG	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
CB	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
POLICEP	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
CHURCHP	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
MINSTRP	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
SCHOOLP	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
TEACHRP	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
RELGITY	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
AUTH	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
FAITH	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
COLLO	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
CLASSES	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
NCBEN	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
DELSC	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
SMOKE	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
ALCOHOL	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
DRUGS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
AVALD	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
GENDEL	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
STRESS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
PSSTRESS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
SUICIDE	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
PHYSWUR	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
ESTRESS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
FAMILYC	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
DEPRESS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
AFFECTD	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
PAGE	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
SELFR	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
GUILT	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
XSS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
BONDS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
STRES	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
NCBENS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
XSS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
MX1X5BS	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
MX1X5BD	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
MXSD	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
GRP1	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
ZSB1	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
ZSXABC1	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472
ZSXBCB1	.4624	.4908	.3624	.4611	.4617	.4636	.4622	.9472

B.3b--Standard Deviations for Males by Age.

STANDARD DEVIATIONS

	GROUP 12 OR 13	1 OR LE	GROUP 13	2	GROUP 14	3	GROUP 15	4	GROUP 16	5	GROUP 17 OR 18	6 OR NO	TOTAL
X2		.0000		.0000		.0000		.0000		.0000		.0000	.0000
X3	1.	.3514	1.	.2540	1.	.2500	1.	.3374	1.	.2754	1.	.2775	1.
DX31		.4764		.4022		.4545		.4078		.4405		.4624	.4505
DX32		.4459		.4363		.4609		.4445		.4667		.4693	.4635
DX33		.2301		.3591		.3471		.3567		.3802		.3542	.3340
DX34		.4208		.3767		.3885		.3780		.3691		.3519	.3372
X4		.4764		.4005		.4444		.4676		.4532		.4269	.4526
DX41		.4922		.4656		.4689		.4211		.4140		.4507	.4605
DX42		.0000		.0000		.0705		.0756		.1356		.0791	.0802
DX43		.4659		.4953		.4917		.4985		.5008		.4996	.4968
DX44		.4764		.4605		.4444		.4676		.4532		.4269	.4526
X5		.8922		.9349	1.	.0656		.9244	1.	.0073	1.	.0221	1.
DX51		.4367		.4933		.4843		.4443		.4150		.3532	.4472
DX52		.4303		.4088		.4562		.4846		.4918		.4414	.4632
DX53		.3026		.3591		.4076		.4311		.4378		.3927	.4143
DX54		.0000		.2318		.3261		.2434		.3043		.3519	.2951
DX55		.0000		.0793		.0605		.0756		.1356		.1177	.1177
X6	1.	.2333	1.	.1271	1.	.0858	1.	.1300	1.	.1877	1.	.1401	1.
DX61		.3026		.1345		.0905		.1066		.1551		.1361	.1342
DX62		.3774		.3234		.3419		.3623		.3802		.3642	.3351
DX63		.4298		.4108		.4362		.4317		.4140		.4307	.4270
DX64		.4111		.4239		.4417		.4135		.4220		.4147	.4223
DX65		.4764		.4920		.4743		.4866		.4798		.4822	.4777
X7	1.	.2510	1.	.1607	1.	.0906	1.	.1946	1.	.1735	1.	.1281	1.
DX71		.2026		.1365		.0995		.1066		.1561		.1361	.1352
DX72		.4330		.4239		.4179		.4676		.4298		.4510	.4494
DX73		.4298		.4729		.4494		.4054		.4589		.4569	.4519
DX74		.3693		.3521		.4469		.4171		.3906		.4104	.4118
DX75		.4659		.5288		.4111		.4846		.4378		.3927	.4632
X8		.9541		.9349		.3134		.8631		.8278		.9179	.8555
DX81		.2026		.1365		.0995		.1066		.1561		.1361	.1352
DX82		.4330		.4239		.4179		.4676		.4298		.4510	.4494
DX83		.4298		.4729		.4494		.4054		.4589		.4569	.4519
DX84		.3693		.3521		.4469		.4171		.3906		.4104	.4118
DX85		.4659		.5288		.4111		.4846		.4378		.3927	.4632
X9		.9528		.8310		.8979		.9934		.9740		.9884	.9444
DX91		.3774		.3591		.3685		.4174		.4405		.4447	.4403
DX92		.5035		.5016		.4960		.4888		.4955		.4914	.4966
DX93		.4007		.4278		.4494		.4351		.4649		.4230	.4200
DX94		.3351		.3100		.3110		.3335		.3601		.3335	.3355
X10	1.	.4747	1.	.4323	1.	.5635	1.	.5077	1.	.4753	1.	.5045	1.
DX101		.3026		.1365		.0995		.1066		.1561		.1361	.1352
DX102		.4330		.4239		.4179		.4676		.4298		.4510	.4494
DX103		.4298		.4729		.4494		.4054		.4589		.4569	.4519
DX104		.3693		.3521		.4469		.4171		.3906		.4104	.4118
DX105		.4659		.5288		.4111		.4846		.4378		.3927	.4632
X11	1.	.5940	1.	.4922	1.	.3744	1.	.3669	1.	.4474	1.	.4704	1.
DX111		.4715		.4150		.3964		.3780		.4049		.3945	.4003
DX112		.1666		.2318		.1960		.2800		.2180		.2311	.2232
DX113		.2026		.3120		.2714		.2644		.3083		.2642	.2735
DX114		.4950		.4772		.5012		.5006		.5015		.5016	.5016
DX115		.4007		.4456		.3944		.4011		.3378		.3812	.3959
BONDING		.5096		.5250		.5471		.5543		.6046		.6421	.5522
FB		.5784		.6342		.6233		.6610		.7312		.5914	.6400
PARCDC		.8454		.7350		.7881		.8096		.9231		.8258	.8847
PARACC		.6449		.6722		.6489		.6847		.6729		.6530	.6444
PARCONG		.8527		.8091		.8628		.8803		.9421		.8941	.9366
CB		.6066		.5374		.6210		.6807		.7821		.7570	.7810
POLICEP		.7586		.7080		.6810		.7087		.7821		.7810	.7810
CHURCHP	1.	.0812		.9640		.9881		.9822		.9824		.9475	.9888
WINSRTP		.8712		.8917		.8351		.8488		.8889		.7516	.8448
SCHOOLP		.9541		.8000		.8450		.8503		.8490		.7559	.8438
TEACHRP	1.	.0034		.8745		.9497		.9220	1.	.0146		.8517	.9114
RELIGITY		.9074		.7749		.8855		.9203	1.	.0297	1.	.0241	.9433
AUTH		.7164		.6165		.6881		.6625		.7466		.6989	.6900
FAITH		.6001		.5111		.6034		.5697		.6190		.5579	.5899
COLLO		.7212		.7732		.7653		.8222		.8183		.8056	.7928
CLASSES		.9454	1.	.0494		.9305		.9518		.9765		.9458	.9755
NCBEM		.6531		.6310		.7167		.6916		.8303		.7464	.7111
DELSC		.9611		.9495		.9421		.9063		.9267		.8805	.9023
SNOKE		.9198		.9331	1.	.0267	1.	.0888	1.	.2343	1.	.1074	1.
ALCOHOL	1.	.1140	1.	.0823	1.	.1853	1.	.2103	1.	.1467	1.	.1996	1.
DRUGS		.4646		.6545		.8168		.8636		.1052		.1492	.1492
AVAILD		.9921	1.	.1011	1.	.2120	1.	.1359	1.	.1180	1.	.1207	.1211
GERDEL		.7741		.7336		.8876		.8503		.8940		.7568	.8333
STRESS		.4984		.4908		.4877		.4505		.5349		.4290	.4863
PSTRESS		.5623		.5721		.5925		.5600		.5893		.5237	.5635
SUICIDE		.7760		.8414		.8521		.7529		.9054		.7641	.8236
PHYSWR		.6336		.4374		.6459		.7244		.6137		.6125	.6359
ESTRESS		.5998		.5742		.5343		.5203		.4967		.4967	.5544
FAMILYC		.7626	1.	.1036		.8483		.8249		.0753		.7451	.8978
DEPRESS		.8186		.6932		.6673		.5277		.7685		.7178	.7006
AFFECTD		.9554		.7847		.8102		.6957		.8245		.8056	.8008
RAGE	1.	.0000		.8134		.8793		.8188		.8545		.7917	.8008
SELF		.6200		.5653		.5562		.5724		.5369		.5620	.5699
GUILT		.7375		.6352		.7056		.6112		.6419		.6621	.6474
XSS		.9333		.4774		.2772		.4249	5.	.1629	5.	.6773	.4471
BOBES		.8151		.8151		.8325		.7606	5.	.1629	5.	.6773	.4471
STRAS		.9333		.4774		.2772		.4249	5.	.1629	5.	.6773	.4471
NCBEM5		.9333		.4774		.2772		.4249	5.	.1629	5.	.6773	.4471
XSS5		.9333		.4774		.2772		.4249	5.	.1629	5.	.6773	.4471
XX1555		.9333	1.	.0746		.7222		.7222	5.	.7915	4.	.7628	.4000
XX1580		.9333	1.	.0746		.7222		.7222	5.	.7915	4.	.7628	.4000
XXSD		.9333	1.	.0746		.7222		.7222	5.	.7915	4.	.7628	.4000
GRP1	2.	.2977	1.	.2032	2.	.2128	1.	.2102	2.	.2462	2.	.2002	2.
ZSE1		.9685		.7048		.8026		.9061		.7772		.8102	1.
ZSXARC1		.9534		.1092		.0319	1.	.0637	1.	.1314	1.	.0748	1.
ZSXBEH1	1.	.0612	1.	.1713	1.	.1452	1.	.2371	1.	.3795	1.	.2427	1.

B.4a--Means and Wilks' Lambda for Females by Age.

GROUP COUNTS

	GROUP 12 OR SS	1 OR LE	GROUP 13	2	GROUP 14	3	GROUP 15	4	GROUP 16	5	GROUP 17 OR RE	6 OR MO	TOTAL
COUNT	98.0000		205.0000		206.0000		201.0000		176.0000		180.0000		1066.0000

MEANS

	GROUP 12 OR SS	1 OR LE	GROUP 13	2	GROUP 14	3	GROUP 15	4	GROUP 16	5	GROUP 17 OR RE	6 OR MO	TOTAL	LAMBDA	F
X2	2.0000		2.0000		2.0000		2.0000		2.0000		2.0000		2.0000	0.0000	
X3	2.6122		2.5366		2.5592		2.5377		2.5340		2.5444		2.5385	1.6575	
DX31	2.5551		2.5883		2.5501		2.5344		2.5395		2.5378		2.5372	1.7435	
DX32	2.5551		2.5771		2.5501		2.5344		2.5395		2.5378		2.5372	1.4585	
DX33	2.5551		2.5771		2.5501		2.5344		2.5395		2.5378		2.5372	1.7769	
DX34	2.5551		2.5771		2.5501		2.5344		2.5395		2.5378		2.5372	1.5670	
X4	1.2446		1.2146		1.2670		1.2229		1.2557		1.1611		1.2270	1.5770	
DX41	2.6553		2.5537		2.2816		2.5557		2.2443		3.1111		2.2602	5.3688	
DX42	2.6553		2.5537		2.2816		2.5557		2.2443		3.1111		2.2602	1.8499	
DX43	2.6553		2.5537		2.2816		2.5557		2.2443		3.1111		2.2602	8.8113	
DX44	2.6553		2.5537		2.2816		2.5557		2.2443		3.1111		2.2602	1.7770	
X5	1.4388		1.7122		2.1165		2.3552		2.7727		3.0000		2.2786	55.3246	
DX51	2.7755		2.5305		2.3592		2.2189		2.1307		2.0667		2.3255	64.1206	
DX52	2.7755		2.5305		2.3592		2.2189		2.1307		2.0667		2.3255	7.5015	
DX53	2.7755		2.5305		2.3592		2.2189		2.1307		2.0667		2.3255	13.5151	
DX54	2.7755		2.5305		2.3592		2.2189		2.1307		2.0667		2.3255	77.7722	
DX55	2.7755		2.5305		2.3592		2.2189		2.1307		2.0667		2.3255	3.5555	
X6	3.8367		3.7317		3.8010		3.8006		3.8977		3.7389		3.8000	1.1326	
DX61	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX62	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX63	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX64	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX65	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
X7	3.5406		3.4146		3.4759		3.4333		3.3920		3.3111		3.4006	1.1326	
DX71	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX72	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX73	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX74	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX75	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
X8	3.2245		3.2561		3.2558		3.2551		3.2644		3.2789		3.2789	1.1326	
DX81	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX82	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX83	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
DX84	2.0102		2.0532		2.0243		2.0244		2.0244		2.0111		2.0244	1.1326	
X76	2.2041		2.2398		2.2515		2.2507		2.1818		1.9944		2.1533	1.1326	
DX761	1.1122		1.1122		1.1122		1.1122		1.1122		1.1122		1.1122	1.1326	
DX762	1.1122		1.1122		1.1122		1.1122		1.1122		1.1122		1.1122	1.1326	
DX763	1.1122		1.1122		1.1122		1.1122		1.1122		1.1122		1.1122	1.1326	
DX764	1.1122		1.1122		1.1122		1.1122		1.1122		1.1122		1.1122	1.1326	
X175	2.9755		2.9751		2.9738		2.9705		2.9711		2.9715		2.9715	1.1326	
DX1751	1.1222		1.1222		1.1222		1.1222		1.1222		1.1222		1.1222	1.1326	
DX1752	1.1222		1.1222		1.1222		1.1222		1.1222		1.1222		1.1222	1.1326	
DX1753	1.1222		1.1222		1.1222		1.1222		1.1222		1.1222		1.1222	1.1326	
DX1754	1.1222		1.1222		1.1222		1.1222		1.1222		1.1222		1.1222	1.1326	
DX1755	1.1222		1.1222		1.1222		1.1222		1.1222		1.1222		1.1222	1.1326	
X176	3.7361		3.7351		3.7344		3.7364		3.7368		3.7368		3.7368	1.1326	
DX1761	1.1429		1.1122		1.0971		1.1005		1.1023		1.0778		1.1041	1.1326	
DX1762	1.1429		1.1122		1.0971		1.1005		1.1023		1.0778		1.1041	1.1326	
DX1763	1.1429		1.1122		1.0971		1.1005		1.1023		1.0778		1.1041	1.1326	
DX1764	1.1429		1.1122		1.0971		1.1005		1.1023		1.0778		1.1041	1.1326	
DX1765	1.1429		1.1122		1.0971		1.1005		1.1023		1.0778		1.1041	1.1326	
BOND176	2.2857		2.2390		2.2554		2.2139		2.2232		2.2611		2.2611	1.1326	
FB	3.6410		3.6542		3.6515		3.6515		3.6515		3.6515		3.6515	1.1326	
PARCDE	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
PARACC	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
PARCNG	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
CB	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
POLICEP	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
CHURCHP	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
MINSTRP	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
SCHOOLP	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
TEACHRP	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
RELGITTY	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
AUTH	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
FAITH	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
COLLO	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
CLASSES	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
NCEB	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
DELSC	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
SNOKE	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
ALCOHOL	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
DRUGS	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
AVALD	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
GENDEL	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
STRESS	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
PSTRESS	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
SUICIDE	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
PHYSWR	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
ESTRESS	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
FAPILYC	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
DEPRESS	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
AFFECTD	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7141	1.1326	
RAGE	3.7846		3.7141		3.7141		3.7141		3.7141		3.7141		3.7		

B.4b--Standard Deviations for Females by Age.

STANDARD DEVIATIONS

	GROUP 1 12	OR LE	GROUP 13	2	GROUP 14	3	GROUP 15	4	GROUP 16	5	GROUP 17 RE	OR NO	6	TOTAL
X2		.0000		.0000		.0000		.0000		.0000		.0000		.0000
X3	1	.3132		.3117		.3101		.3043		.2943		.2843		.2743
DX31		.4382		.4442		.4465		.4421		.4388		.4332		.4288
DX32		.4391		.4665		.4714		.4689		.4714		.4492		.4437
DX33		.3619		.2974		.3329		.2784		.2322		.3081		.3006
DX34		.4240		.4305		.4345		.4321		.3614		.3525		.3389
X4		.4322		.4116		.4445		.4174		.4373		.3687		.4191
DX41		.4343		.4362		.4509		.4390		.4309		.4642		.4438
DX42		.0000		.0493		.1201		.0705		.0000		.0743		.0808
DX43		.5025		.5007		.4972		.5011		.5014		.5039		.5002
DX44		.4322		.4116		.4445		.4174		.4373		.3687		.4191
X5		.8659		.9802		.9843		.9906		.9935		.9987		1
DX51		.4194		.4947		.4909		.4821		.4750		.4571		.4491
DX52		.2103		.4081		.4555		.4621		.4273		.4276		.4396
DX53		.3173		.3336		.3207		.4469		.4908		.4859		.4379
DX54		.2212		.2784		.3216		.3419		.3959		.4276		.4422
X6	1	.1010		.0030		.0697		.0993		.1000		.2301		.1422
DX61		.1010		.1637		.1343		.1422		.1406		.1000		.1514
DX62		.3195		.3591		.3273		.3364		.3039		.3737		.3400
DX63		.4338		.4116		.4355		.4002		.4374		.4374		.4397
DX64		.4194		.4442		.4238		.4609		.4203		.4052		.4113
DX65		.4373		.4737		.4337		.4821		.4941		.4817		.4627
X7	1	.2025		.1794		.1755		.1734		.1214		.1050		.1844
DX71		.1100		.1690		.1543		.1706		.1666		.1051		.1514
DX72		.4322		.4334		.4238		.4565		.4437		.4463		.4393
DX73		.4382		.4245		.4327		.4362		.4342		.4619		.4372
DX74		.3006		.4352		.4263		.3665		.3959		.4131		.4069
DX75		.4674		.4245		.4382		.4417		.4406		.3969		.4329
X8		.4547		.6015		.5598		.5906		.5688		.4957		.5320
DX81		.1010		.1690		.1543		.1706		.1666		.1051		.1514
DX82		.0000		.0000		.0697		.0000		.0000		.0743		.0808
DX83		.3132		.3117		.3101		.3043		.2943		.2843		.2743
DX84		.3132		.3117		.3101		.3043		.2943		.2843		.2743
X76		.7177		.3517		.3486		.6216		.6216		.3837		.3926
DX761		.7177		.3517		.3486		.6216		.6216		.3837		.3926
DX762		.7177		.3517		.3486		.6216		.6216		.3837		.3926
DX763		.7177		.3517		.3486		.6216		.6216		.3837		.3926
DX764		.7177		.3517		.3486		.6216		.6216		.3837		.3926

B.5a--Means and Wilks' Lambda for All Subjects by the Five Levels of Sexual Activity.

GROUP COUNTS

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL
COUNT	194.0000	515.0000	769.0000	257.0000	258.0000	1993.0000

MEANS

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL	WILKS' LAMBDA	F
X1	2.9072	3.1405	3.9636	4.0700	4.1357	3.6364	.9150	46.1678
X2	2.4642	1.5495	1.6112	1.5136	1.3372	1.5349	.9462	15.7593
X3	2.5510	2.4427	2.5775	2.3064	2.1473	2.4250	.9472	6.9290
DX131	2.3472	2.7119	2.2932	2.2874	2.1331	2.4056	.9477	6.4573
DX132	2.1134	1.2622	1.1170	1.245	1.1318	1.131	.9477	1.1466
DX133	2.2524	1.9465	1.386	1.245	1.0801	1.726	.9463	6.051
DX134	2.2772	1.2272	1.2107	1.2918	1.1876	1.2549	.9418	9.2289
X4	2.2577	1.010	2.2692	2.2763	2.2481	2.2745	.9484	1.7755
DX41	2.0052	0.058	0.026	0.156	0.116	0.055	.9469	1.5508
DX42	2.4588	2.4660	2.5176	2.4163	2.3527	2.4641	.9476	6.8114
DX43	2.2754	2.2272	2.2107	2.2918	2.1876	2.2549	.9418	9.2289
DX44	2.0979	1.4913	2.5657	2.8560	2.8295	2.2168	.6591	2.5289
DX51	2.9227	6.175	1.456	1.401	1.163	3.387	.6666	2.210
DX52	2.0616	2.913	3.212	2.140	2.132	2.604	.6623	1.890
DX53	2.0105	0.738	3.680	3.355	2.446	2.619	.6619	2.840
DX54	2.0022	0.175	1.521	2.646	1.667	1.194	.9299	1.916
DX55	2.0000	0.000	0.110	0.248	0.054	0.176	.9299	1.020
X6	3.6596	3.6757	3.8323	3.0139	3.8295	3.7878	.9434	3.184
DX61	2.0336	0.136	0.195	0.195	0.140	0.211	.9434	1.184
DX62	2.1568	2.558	2.126	2.073	1.899	2.140	.9434	3.359
DX63	2.2742	2.558	2.245	2.206	1.899	2.333	.9434	2.948
DX64	2.216	2.245	2.245	2.206	1.899	2.333	.9434	1.824
DX65	3.351	3.165	3.758	3.202	3.992	3.653	.9434	2.7701
X7	3.0676	3.2583	3.4720	3.5056	3.5078	3.4884	.9434	2.2020
DX71	2.0361	0.116	0.195	0.195	0.140	0.211	.9434	1.184
DX72	2.3454	2.3029	2.380	2.412	2.016	2.609	.9434	4.1882
DX73	2.26FC	2.2913	2.2414	2.214C	2.2829	2.2664	.9434	1.2593
DX74	2.1959	1.961	2.213	2.2646	1.977	2.2117	.9434	1.4633
DX75	2.1546	1.961	2.2672	2.2607	2.2668	2.2398	.9434	3.833
X8	3.6499	3.6757	3.7347	3.6846	3.6318	3.6914	.9434	1.3324
DX81	2.0412	0.155	0.195	0.195	0.140	0.211	.9434	1.184
DX82	2.0822	0.090	0.063	0.073	0.120	0.063	.9434	1.2593
DX83	2.0616	0.0705	0.0793	0.073	0.0349	0.209	.9434	1.674
DX84	2.8144	2.8375	2.8375	2.8144	2.8140	2.8209	.9434	3.6170
X76	2.9691	2.9691	2.1657	2.4473	2.6512	2.6697	.9434	3.0766
DX761	2.2784	2.2784	2.2784	2.2784	2.2784	2.2784	.9434	4.6943
DX762	2.3567	2.3567	2.3567	2.3567	2.3567	2.3567	.9434	26.6958
DX763	2.0642	0.046	0.046	0.046	0.046	0.046	.9434	19.0329
DX764	2.2784	2.2784	2.2784	2.2784	2.2784	2.2784	.9434	17.3260
X175	3.2784	3.2311	2.8817	2.4464	2.9225	2.9649	.9434	12.4777
DX1751	2.0306	0.0816	0.1391	0.191	0.2364	0.1405	.9434	30.2194
DX1752	2.4742	2.4447	2.4941	2.3696	2.3101	2.4395	.9434	8.3577
DX1753	2.0306	0.0816	0.1391	0.191	0.2364	0.1405	.9434	1.6136
DX1754	2.1134	0.0738	0.0403	0.0506	0.1240	0.0682	.9434	7.6431
DX1755	3.3505	3.3825	3.3069	3.2213	3.2907	3.3176	.9434	3.8550
X176	3.0206	3.5027	3.7763	3.8405	3.5426	3.6116	.9434	16.7112
DX1761	2.299	1.903	1.053	0.700	1.589	1.515	.9434	20.111
DX1762	2.0567	0.0310	0.0377	0.0426	0.0659	0.0426	.9434	1.2665
DX1763	2.0361	0.0621	0.0728	0.1012	0.0814	0.0711	.9434	1.3993
DX1764	2.4175	2.5088	2.416	2.5286	2.4612	2.5118	.9434	1.7465
DX1765	2.1596	2.075	2.2409	2.374	2.326	2.228	.9434	57.6401
BONDING	2.8039	2.7649	2.5733	2.4417	2.4622	2.5863	.9434	37.0227
FB	2.8039	2.7649	2.5733	2.4417	2.4622	2.5863	.9434	37.0227
PARCOC	2.5939	2.6936	2.7914	2.7046	2.6235	2.6800	.9434	23.554
PARACC	2.115	2.033	2.0928	2.046	2.0235	2.0599	.9434	25.056
PARCON6	2.9691	2.9691	2.9691	2.9691	2.9691	2.9691	.9434	10.071
CB	2.7164	2.6956	2.4791	2.3412	2.0973	2.4909	.9434	60.459
POLICEP	2.0336	0.136	0.195	0.195	0.140	0.211	.9434	1.184
CHURCHP	2.6339	2.4460	2.384	2.2215	2.2844	2.4047	.9434	4.454
MINSTRP	2.6718	2.7000	2.5464	2.4677	2.2997	2.5588	.9434	12.6119
SCHOOLP	2.1624	2.2613	2.1214	2.0781	2.6722	2.0720	.9434	3.962
TEACHP	2.0304	0.0728	0.0706	0.0503	2.2917	2.3346	.9434	3.0271
RELIGITY	2.9110	2.8703	2.7083	2.6240	2.4138	2.7211	.9434	3.0271
AUTH	2.7114	3.132	3.132	2.256	3.8330	3.1072	.9434	41.0532
FAITH	2.1426	1.1383	0.0609	0.9601	0.0000	2.7679	.9434	4.7220
COLLO	2.7317	2.7061	2.7061	2.4220	2.1149	2.6068	.9434	26.6013
CLASSES	2.9267	2.9734	2.7996	2.6130	2.1019	2.714	.9434	2.6437
NCDEN	2.3405	1.4465	1.8677	1.1977	2.3019	1.9462	.9434	2.222
DELSC	2.1678	1.8155	1.8766	0.3556	3.566	1.9462	.9434	1.939
SMOKE	2.1305	1.5110	2.0623	1.184	2.113	1.9462	.9434	125.674
ALCOHOL	2.1222	1.4712	2.0681	1.3691	2.104	1.9462	.9434	141.7427
DRUGS	2.1044	1.0458	2.0681	1.3691	2.104	1.9462	.9434	131.6228
AVOID	2.1044	1.0458	2.0681	1.3691	2.104	1.9462	.9434	228.0198
GENOFL	2.1223	1.3229	2.1776	2.0751	2.2614	2.1768	.9434	41.1726
STRESS	2.1400	2.1713	2.2750	2.4146	2.5737	2.2918	.9434	29.0682
PSTRESS	2.0190	2.0216	2.1179	2.2384	2.4350	2.1399	.9434	2.3553
SUICIDE	2.1366	1.3476	1.5243	1.7237	1.9860	1.5404	.9434	4.2919
PHYSWIFR	2.6665	2.6957	2.7114	2.7541	2.8610	2.7304	.9434	3.2291
ESTRESS	2.2032	2.3209	2.4321	2.5902	2.7125	2.4436	.9434	2.6337
FAMILYC	2.1471	1.122	1.3546	1.1011	1.4127	1.4467	.9434	3.6337
DEPRESS	2.1806	2.9110	2.9217	2.9087	3.0956	2.9161	.9434	3.6337
AFFECTO	2.5564	2.7550	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
RAGE	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
SELF	2.2109	2.1392	2.4664	2.4979	2.781	2.3939	.9434	3.6337
GUILT	2.2109	2.1392	2.4664	2.4979	2.781	2.3939	.9434	3.6337
YS	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
POWUS	1.4	1.4	1.4	1.4	1.4	1.4	.9434	101.211
STRESS	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
NCEMS	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
PKES	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
WX1X5US	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
WX1X5HD	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
WXSC	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
ZS-1	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
ZSARC1	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337
ZSXBEM1	2.1311	2.4315	2.9149	2.6306	2.9600	2.8516	.9434	3.6337

B.5b--Standard Deviations for All Subjects by the Five Levels of Sexual Activity.

STANDARD DEVIATIONS

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL
X1	1.5001	1.4824	1.5211	1.4774	1.4806	1.5660
X2	1.5011	1.4820	1.4878	1.5000	1.4737	1.4949
X3	1.2394	1.2545	1.3739	1.2810	1.2513	1.3147
DX11	.4326	.4463	.4510	.4645	.4840	.4608
DX12	.4750	.4748	.4564	.4537	.4618	.4635
DX13	.3170	.3324	.3217	.3306	.3389	.3273
DX14	.4356	.3842	.3914	.3306	.2655	.3780
X4	.4491	.4194	.4080	.4555	.4681	.4359
DX41	.4385	.4591	.4438	.4428	.4327	.4444
DX42	.0718	.0762	.0510	.1244	.1074	.0805
DX43	.4499	.4993	.5000	.4914	.4787	.4988
DX44	.4499	.4196	.4080	.4555	.4681	.4359
X5	.3750	.7095	.9594	1.0927	1.0183	1.0918
DX51	.2672	.4365	.3530	.3477	.3212	.4734
DX52	.4611	.4548	.4672	.4109	.4103	.4360
DX53	.4011	.4817	.4826	.4781	.4984	.4309
DX54	.0718	.1912	.1914	.5944	.1784	.3244
DX55	.0000	.0000	.1134	.4200	.2270	.3144
X6	1.1909	1.1339	1.1235	1.1037	1.1909	1.1427
DX61	.3470	.1159	.1384	.1384	.1737	.1437
DX62	.3074	.3901	.3322	.2960	.1512	.3476
DX63	.4326	.4337	.4229	.4249	.3930	.4230
DX64	.4164	.4303	.4308	.4214	.4257	.4271
DX65	.4732	.4656	.4846	.4940	.4907	.4816
X7	1.1410	1.1286	1.1746	1.1730	1.1909	1.1688
DX71	.1870	.1159	.1384	.1384	.1737	.1437
DX72	.4767	.4600	.4261	.4287	.4019	.4302
DX73	.4441	.4548	.4397	.4104	.4513	.4422
DX74	.3979	.3974	.4099	.4420	.3900	.4086
DX75	.3925	.3974	.4431	.4396	.4532	.4271
X8	.6021	.7151	.6633	.7112	.8134	.7181
DX81	.1294	.1238	.1384	.1240	.1737	.1453
DX82	.2758	.2990	.2444	.2964	.3258	.2809
DX83	.2415	.2710	.2704	.2622	.1638	.2573
DX84	.3695	.3559	.3692	.3905	.3899	.3836
X76	.2450	.7575	.8151	.9345	1.0815	.8774
DX761	.4491	.4207	.3829	.3477	.3899	.3980
DX762	.4491	.4207	.3829	.3477	.3899	.3980
DX763	.4491	.4207	.3829	.3477	.3899	.3980
DX764	.4491	.4207	.3829	.3477	.3899	.3980
X175	1.4305	1.5251	1.5191	1.5261	1.5958	1.5415
DX1751	.1736	.2739	.3463	.4670	.4257	.3567
VA1752	.3495	.4974	.5035	.4670	.4257	.4965
DX1753	.1736	.2739	.3463	.4670	.4257	.3567
DX1754	.3179	.2617	.1963	.2190	.3305	.2522
DX1755	.4781	.4655	.4619	.4145	.4530	.4657
X176	1.5637	1.3710	1.1029	1.0539	1.1430	1.2587
DX1761	.2310	.1758	.1502	.2026	.2466	.2021
DX1762	.2310	.1758	.1502	.2026	.2466	.2021
DX1763	.2310	.1758	.1502	.2026	.2466	.2021
DX1764	.2310	.1758	.1502	.2026	.2466	.2021
DX1765	.2310	.1758	.1502	.2026	.2466	.2021
BONDING	.0012	.4727	.5144	.5844	.5454	.5451
FB	.6567	.5994	.6658	.7643	.6842	.6817
PARCDC	.8207	.7325	.8691	.9942	.9021	.8844
PARACC	.6532	.5839	.6653	.7909	.7208	.6887
PARCONG	.6544	.8443	.9513	.9770	1.0009	.9298
CB	.5255	.5267	.5578	.6041	.6477	.5985
POLICEP	.6165	.4227	.7049	.7518	.8747	.7379
CHURCHP	.6213	.5343	.9489	1.0107	.9901	.9740
MINSTRP	.8960	.7704	.7291	.8562	.8689	.8021
SCHOOLP	.7955	.7525	.8123	.8819	.8806	.8380
TEACHRP	.6143	.6312	.6208	.9681	.9410	.8911
RELGITY	.6524	.6332	.6625	.9090	.9281	.8740
AUTH	.6430	.6417	.6494	.6657	.6709	.6803
FAITH	.5708	.5610	.5603	.5841	.6151	.5748
COLLO	.7765	.6791	.7134	.8130	.8507	.7736
CLASSES	.6802	.6324	.8734	.9299	1.0935	.9257
NCBEM	.3726	.3473	.5650	.6566	.7386	.6717
DELSC	.7970	.3351	.8798	.9262	1.0357	.9079
SMOKE	.5910	.6185	1.0149	1.1441	1.1429	1.0766
ALCOHOL	.5898	.7089	1.0148	1.0773	1.2480	1.0679
DRUGS	.2466	.2192	.6985	.9871	1.2595	.8302
AVALD	.8240	1.0448	1.1232	1.1101	1.1992	1.2200
GENDEL	.4127	.4104	.5687	.6820	.8908	.7216
STRESS	.4644	.4155	.4510	.5104	.5489	.4820
PSTRESS	.5201	.4625	.5405	.6150	.6753	.5630
SUTICIDP	.7443	.5356	.7003	.8474	1.0122	.7937
PHYSICP	.6684	.6339	.6653	.7144	.7362	.6810
ESTRESS	.6684	.6339	.6653	.7144	.7362	.6810
FAMILYLC	.7157	.6683	.6603	.9356	1.1072	.8064
DEPRESS	.6575	.6636	.7274	.7355	.7253	.7342
AFFECTD	.6504	.6423	.8377	.8635	.8487	.8423
PAGE	.6041	.7354	.7574	.8405	.9819	.8109
SELFR	.5525	.4318	.5424	.5425	.5752	.5433
GUILT	.7138	.6435	.5943	.6655	.6619	.6396
X55	1.5042	2.0831	5.0916	6.1060	5.9130	5.6327
BONDS	3.4514	5.0000	3.6099	3.4680	5.5584	3.8106
STRES	2.1146	1.9375	2.1749	2.7674	2.0261	2.4225
NCBEMS	1.2557	1.1517	2.4281	1.1522	1.9992	1.0049
MX55	.9902	1.4955	2.5335	1.1504	3.2365	2.9451
MX1X55	.9902	2.0537	5.1345	6.2126	5.8376	54.4484
MX1X560	17.8223	21.4128	45.1660	60.1935	62.0593	52.3863
MX50	1.1399	1.1624	1.7891	2.4265	2.8361	2.2471
ZS41	.0043	.2330	.5539	.6578	.6966	.6047
ZSXA8C1	.0024	.0357	.1558	.2101	.1358	.0914
ZSXBEM1	.0025	.0037	.0564	.2615	1.6339	.9787

B.6a--Means and Wilks' Lambda for Males by the Five Levels of Sexual Activity.

GROUP COUNTS						
	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL
COUNT	100.0000	232.0000	299.0000	125.0000	171.0000	927.0000
MEANS						
	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL
X1	2.9800	3.3147	4.1104	3.8240	4.0058	3.7282
X2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
X3	2.6500	2.4400	2.5726	2.3840	2.2690	2.4693
DX31	1.7000	2.2759	2.2742	2.3600	2.3372	2.2826
DX32	1.3000	1.3362	1.2876	1.2640	1.3273	1.3118
DX33	1.6000	1.1850	1.1405	1.1580	1.1677	1.1767
DX34	1.4700	1.1808	1.1808	1.1440	1.0877	1.2569
DX41	1.3100	1.3147	1.3508	1.2800	1.2211	1.3055
DX42	1.0000	0.0866	0.0000	0.0244	0.0058	0.0055
DX43	1.3000	0.4569	0.4983	0.4000	0.1041	0.4251
DX44	1.3100	0.2198	0.2508	0.2960	0.4211	0.2869
X5	1.1300	1.4741	2.4047	2.6320	2.8304	2.1456
DX51	1.8900	1.6207	1.1906	1.1760	1.0877	1.3528
DX52	1.0600	0.2974	0.3445	0.2480	0.2398	0.2718
DX53	1.0200	0.0590	0.3378	0.3600	0.4654	0.2665
DX54	1.0100	0.0129	0.1277	0.2000	0.1287	0.0949
DX55	1.0000	0.0000	0.0033	0.0160	0.0585	0.0140
X6	3.6400	3.6466	3.7860	3.9520	3.8480	3.7691
DX61	1.0200	0.0216	0.0167	0.0000	0.0234	0.0183
DX62	1.1800	0.1595	0.1472	0.1120	0.1462	0.1489
DX63	1.2900	0.2716	0.2408	0.2080	0.2047	0.2305
DX64	1.2200	0.2457	0.2241	0.2640	0.2105	0.2319
DX65	1.3200	0.3017	0.3712	0.4080	0.4152	0.3614
X7	3.0300	3.1853	3.4381	3.5680	3.5848	3.3743
DX71	1.0200	0.0216	0.0167	0.0000	0.0234	0.0183
DX72	1.3600	0.0316	0.2542	0.2160	0.1696	0.2611
DX73	1.3100	0.2528	0.3375	0.4000	0.3041	0.2772
DX74	1.1200	0.1340	0.3174	0.2800	0.0047	0.3149
DX75	1.1200	0.1747	0.2542	0.2680	0.2782	0.2287
X8	3.5600	3.4457	3.6535	3.5760	3.6675	3.5750
DX81	1.0300	0.0216	0.0167	0.0000	0.0234	0.0183
DX82	1.1600	0.2198	0.1572	0.2000	0.1813	0.1334
DX83	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DX84	1.0100	0.0590	0.3378	0.3600	0.4654	0.2665
X76	2.0200	2.2274	2.2274	2.4480	2.6964	2.2686
DX761	1.2600	0.2672	0.2040	0.1600	0.1754	0.2125
DX762	1.5400	0.5122	0.5522	0.3840	0.2164	0.4315
DX763	1.0300	0.1535	0.2475	0.1200	0.3743	0.2395
DX764	1.0900	0.0560	0.0870	0.1360	0.2047	0.1079
X175	3.4600	3.3793	3.0033	2.7680	2.6474	3.1068
DX1751	1.0300	0.0540	0.0903	0.2080	0.2281	0.1165
DX1752	1.3900	0.4224	0.5050	0.4000	0.2865	0.4175
DX1753	1.0400	0.0172	0.0334	0.0660	0.0526	0.0378
DX1754	1.1500	0.0948	0.0535	0.0720	0.1754	0.0992
DX1755	1.3900	1.4095	1.5177	1.2560	1.2573	1.3290
X176	2.6600	2.2974	3.5552	3.7200	3.3918	3.3819
DX1761	1.4200	0.2500	1.1505	0.0960	0.1988	0.2060
DX1762	1.0900	0.0388	0.0468	0.0480	0.0819	0.0861
DX1763	1.0300	0.0690	0.0936	0.1040	0.0819	0.0822
DX1764	1.1300	1.1483	1.1511	1.2480	1.4015	1.4617
DX1765	1.1300	1.1483	1.1511	1.2480	1.4015	1.4617
CONDINE	1.8300	1.7153	1.5671	1.4700	1.2180	1.7455
F8	1.9300	1.8331	1.6723	1.6511	1.1879	1.6511
PARCDE	1.6447	1.4999	1.3127	1.1835	1.0400	1.4000
PARACC	1.1506	1.0749	1.0227	1.0450	1.0598	1.0598
PARCONC	1.0500	1.0247	1.0707	1.0274	1.0270	1.0270
CB	3.7627	3.7375	3.4613	3.1105	2.4628	3.4628
POLICEP	1.0515	1.0468	1.0206	1.0476	1.0327	1.0327
CHURCHP	1.6300	1.6812	1.3802	1.2587	1.0645	1.7114
MINSTRP	1.6467	1.7672	1.5474	1.5040	1.2963	1.5653
SCHOOLP	1.1275	1.2446	1.0641	1.0530	1.0662	1.0998
TEACHERP	1.0780	1.0457	1.0001	1.0000	1.0301	1.0301
RELIGITY	1.0040	1.0378	1.0359	1.0359	1.0359	1.0359
AUTH	1.7687	1.6220	1.5538	1.2683	1.0516	1.5538
FAITH	1.1533	1.1454	1.0523	1.0352	1.0107	1.0765
COLLO	1.6495	1.7039	1.7105	1.4946	1.1351	1.5724
CLASSES	1.8401	1.9718	1.6536	1.5150	1.1431	1.6247
NCREM	1.3111	1.4923	1.5006	1.2546	1.0781	1.5558
DELSC	1.6600	1.8491	1.9431	1.1560	1.4444	2.1022
SMOKE	1.4475	1.5011	1.0792	1.1400	1.1077	1.1147
ALCOHOL	1.3400	1.8101	1.1297	1.0760	1.0819	1.1170
DRUGS	1.0600	1.0599	1.0599	1.0599	1.0778	1.0599
AVAILB	1.6341	1.9586	1.3545	1.0600	1.2910	1.5457
GENDEL	1.3541	1.5464	1.9828	1.0600	1.1800	1.5457
STRLSS	2.1374	2.1665	2.2488	1.3307	1.5148	2.0782
PSYHRESS	1.4972	1.0000	1.0533	1.1303	1.0507	1.1056
SUICIDE	1.4400	1.3728	1.4799	1.1177	1.0554	1.5597
PHYSWEP	2.5545	2.6272	2.6247	2.6680	2.7740	2.6515
ESTRESS	2.2644	2.3330	2.4292	2.4400	2.6889	2.4508
FAMILYC	1.1600	1.4600	1.5811	1.5811	1.9208	1.5049
DEPKESS	2.8412	2.8192	2.8942	2.9024	3.0154	2.9883
AFFECTD	2.4600	2.4875	2.8033	2.7425	3.0092	2.7432
RAGE	2.3420	2.4445	2.6125	2.5860	3.0020	2.6597
SELFPP	2.2510	2.2693	2.4624	2.5880	2.4453	2.4071
GUILT	2.3400	2.4274	2.4223	2.4457	2.5228	2.4451
XSS	1.5500	2.4379	2.6372	2.4000	2.9357	2.7077
BONDUS	14.0693	14.5299	13.9708	14.4740	14.6504	13.7772
STRES	4.7568	4.5528	5.2114	5.4735	5.7411	5.4281
NCHENS	2.1314	2.1355	3.3453	3.5203	3.2274	3.3200
MXSS	2.7998	2.7998	3.9453	4.1217	4.1600	3.7666
MXIXES	19.7998	19.7998	26.1763	26.1763	26.1763	26.1763
MXIXGC	19.7998	19.7998	26.1763	26.1763	26.1763	26.1763
MXSD	3.0756	3.0756	4.3419	4.4025	4.4025	4.4025
ZSH1	1.7356	1.7356	1.1104	1.1104	1.5567	1.4064
ZSHARC1	2.1298	2.1298	2.7892	2.7892	2.9957	2.9957
ZSHBEM1	2.5470	2.5474	2.6598	3.0336	3.1691	3.1513

B.6b--Standard Deviations for Males by the Five Levels of Sexual Activity.

STANDARD DEVIATIONS						
	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL
X1	1.6813	1.4445	1.4807	1.4084	1.5166	1.5445
X2	.0000	.0000	.0000	.0000	.0000	.0000
X3	1.1667	1.2678	1.3666	1.1185	1.2547	1.2975
DX31	.3775	.4679	.4669	.4742	.4723	.4505
DX32	.4324	.4734	.4534	.4626	.4707	.4635
DX33	.3655	.3314	.3481	.3754	.3711	.3540
DX34	.4422	.3963	.3853	.3525	.2837	.3772
X4	.4646	.4150	.4342	.4583	.4952	.4526
DX41	.4646	.4634	.4342	.4508	.4447	.4495
DX42	.0000	.0926	.0000	.1537	.0765	.0802
DX43	.4678	.4992	.5008	.4919	.4616	.4948
DX44	.4678	.4150	.4342	.4583	.4952	.4526
X5	.4724	.6633	.4342	1.0437	.9643	1.0346
DX51	.3145	.4383	.3955	.3826	.2837	.4078
DX52	.2727	.4581	.4760	.4336	.4282	.4452
DX53	.1407	.2519	.4738	.4819	.5013	.4428
DX54	.1000	.1132	.3298	.4016	.3358	.2933
DX55	.0000	.0000	.0578	.1260	.2353	.1177
X6	1.1675	1.1339	1.1444	1.0690	1.1833	1.1443
DX61	.1407	.1455	.1284	.0894	.1316	.1342
DX62	.3641	.3669	.3549	.3166	.3543	.3561
DX63	.4408	.4457	.4283	.4075	.4047	.4270
DX64	.4141	.4314	.4177	.4426	.4089	.4223
DX65	.4668	.4600	.4839	.4934	.4942	.4807
X7	1.0544	1.1301	1.1695	1.1173	1.1518	1.1512
DX71	.1407	.1455	.1284	.0894	.1316	.1342
DX72	.4624	.4671	.4361	.4132	.3764	.4394
DX73	.4646	.4542	.4380	.4286	.4614	.4479
DX74	.3743	.3963	.4132	.4502	.4047	.4106
DX75	.3246	.3323	.4361	.4384	.4588	.4202
X8	.8537	.9059	.8053	.8351	.8676	.8535
DX81	.1714	.1455	.1284	.0894	.1516	.1381
DX82	.3685	.4150	.3686	.4016	.3864	.3872
DX83	.0000	.0000	.0000	.0000	.0000	.0000
DX84	.8537	.8338	.8374	.8259	.8043	.8434
X76	.4202	.4235	.4037	.3691	1.3815	.4093
DX761	.4943	.5009	.4991	.4883	.4130	.4956
DX762	.2727	.3669	.4333	.4652	.4854	.4270
DX763	.2727	.2305	.2892	.3442	.4047	.3104
DX764	.2727	.2305	.2892	.3442	.4047	.3104
X175	1.4176	1.4934	1.4824	1.5141	1.5540	1.5132
DX1751	.1714	.2305	.2871	.4075	.4208	.3210
DX1752	.4902	.4950	.5008	.4919	.4535	.4934
DX1753	.1714	.1305	.1201	.2457	.2240	.1907
DX1754	.3586	.2936	.2254	.2535	.3635	.2992
DX1755	.4902	.4928	.4664	.4392	.4384	.4701
X176	1.5556	1.4778	1.2795	1.1402	1.4405	1.4053
DX1761	.4760	.4339	.3582	.2956	.4003	.4047
DX1762	.2576	.1935	.2116	.2146	.2750	.2302
DX1763	.2170	.2539	.2918	.3065	.2750	.2745
DX1764	.4726	.4984	.5006	.5001	.4920	.4988
DX1765	.3145	.3963	.3661	.4075	.4246	.3958
BONDING	.5106	.4476	.4978	.5720	.5509	.5432
FB	.6442	.5547	.6227	.6783	.6773	.6490
PARCOC	.7804	.7049	.7820	.8860	.8923	.8237
PARACC	.6751	.5674	.6141	.6970	.6919	.6754
PARCOCG	.8122	.8072	.8468	.8442	.9889	.8764
CB	.3566	.4174	.3688	.5271	.6227	.6108
POLICEP	.6476	.6174	.7488	.7627	.8631	.8370
CHURCHP	1.0040	.8845	.9293	.9972	.9948	.9898
MINSTRP	1.0040	.7684	.7636	.8674	.8973	.8438
SCHOOLP	.8554	.7550	.7839	.8766	.8707	.8438
TEACHRP	.9453	.8024	.8358	1.0552	.9222	.9371
RELGITY	.9657	.8138	.9527	.9295	.9491	.9413
AUTH	.6662	.6348	.6702	.6763	.6535	.6960
FAITH	.6132	.5339	.5664	.5887	.6356	.5829
COLLO	.7502	.7251	.7275	.7600	.7556	.7928
CLASSES	.8600	.8805	.9193	.9281	1.1044	.9755
NCBEM	.4394	.3703	.5729	.6713	.6987	.7330
DELSG	.7878	.8091	.8900	.9123	1.0661	.9293
SMOKE	.7047	.6130	.9414	1.1356	1.1382	1.0904
ALCOHOL	.6996	.7931	1.1035	1.1245	1.1793	1.1690
DRUGS	.3300	.2681	.7098	.6610	1.2470	.9133
AVALD	.8977	1.0431	1.0985	1.1534	1.1210	1.2119
GENDEL	.4543	.4527	.6659	.7594	.8779	.8303
STRESS	.4671	.3926	.4369	.5109	.5638	.4833
PSTRESS	.5317	.4644	.5056	.5464	.7004	.5635
SUICIDP	.8407	.6179	.7169	.8140	1.0811	.8256
PHYSLEP	.6567	.5152	.6323	.6204	.7275	.6579
ESTRESS	.5779	.7228	.6323	.6271	.7848	.6574
FAMILYC	.7304	.7469	.7255	.6615	1.1921	.9978
DEPRESS	.8647	.6271	.7048	.6902	.6908	.7026
AFFECTD	.8589	.7447	.8308	.7851	.7711	.8008
RAGE	.7663	.7664	.8169	.8506	.9048	.8489
SELFRR	.5054	.4914	.5714	.5619	.5797	.5629
GUILT	.7554	.6605	.6118	.6530	.6846	.6618
XSS	1.9468	2.7109	4.7317	5.5336	5.7509	5.1772
BONDS	.7501	.3415	.3511	.3517	.5542	.4171
STPES	.2231	.5336	.2066	.2467	.2400	.2400
NCREMS	.6352	.2538	.6161	.3694	.3668	.4408
MXSS	1.1752	1.4649	2.4916	2.3094	1.1451	2.0878
MX1X58S	2.0610	3.2731	4.3811	5.7316	5.16816	4.00468
MX1X58F	2.1026	2.7329	4.0249	5.42091	6.23217	5.16263
MXSD	.5076	.1844	.7797	.4516	.28669	.24459
ZSF1	.0596	.2053	.5557	.4425	.6991	.10500
ZSXABC1	.0018	.0359	.1054	.2104	.1463	.17832
ZSXBEH1	.0022	.0025	.0571	.2370	1.7140	1.2205

B.7a--Means and Wilks' Lambda for Females by the Five Levels of Sexual Activity.

GROUP COUNTS						
	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL
COUNT	94.0000	283.0000	470.0000	132.0000	87.0000	1066.0000
MEANS						
	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL
						WILKS' LAMBDA
						F
X1	2.8511	3.0141	3.8702	4.3030	4.3908	3.6492 33.6492
X2	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000 7.0000
X3	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000 7.0000
DX31	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000 7.0000
DX32	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000 7.0000
DX33	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000 7.0000
DX34	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000 7.0000
X4	1.2447	1.2332	1.1451	1.1579	1.1218	1.1755 1.1755
DX41	1.2447	1.2332	1.1451	1.1579	1.1218	1.1755 1.1755
DX42	1.2447	1.2332	1.1451	1.1579	1.1218	1.1755 1.1755
DX43	1.2447	1.2332	1.1451	1.1579	1.1218	1.1755 1.1755
DX44	1.2447	1.2332	1.1451	1.1579	1.1218	1.1755 1.1755
X5	1.0026	1.5053	2.6681	3.0682	2.8276	2.2746 153.1222
DX51	1.0026	1.5053	2.6681	3.0682	2.8276	2.2746 153.1222
DX52	1.0026	1.5053	2.6681	3.0682	2.8276	2.2746 153.1222
DX53	1.0026	1.5053	2.6681	3.0682	2.8276	2.2746 153.1222
DX54	1.0026	1.5053	2.6681	3.0682	2.8276	2.2746 153.1222
DX55	1.0026	1.5053	2.6681	3.0682	2.8276	2.2746 153.1222
X6	3.6009	3.6996	3.8617	3.9167	3.7931	3.8039 1.8039
DX61	3.6009	3.6996	3.8617	3.9167	3.7931	3.8039 1.8039
DX62	3.6009	3.6996	3.8617	3.9167	3.7931	3.8039 1.8039
DX63	3.6009	3.6996	3.8617	3.9167	3.7931	3.8039 1.8039
DX64	3.6009	3.6996	3.8617	3.9167	3.7931	3.8039 1.8039
DX65	3.6009	3.6996	3.8617	3.9167	3.7931	3.8039 1.8039
X7	3.1485	3.1880	3.4936	3.4543	3.1563	3.4006 1.4006
DX71	3.1485	3.1880	3.4936	3.4543	3.1563	3.4006 1.4006
DX72	3.1485	3.1880	3.4936	3.4543	3.1563	3.4006 1.4006
DX73	3.1485	3.1880	3.4936	3.4543	3.1563	3.4006 1.4006
DX74	3.1485	3.1880	3.4936	3.4543	3.1563	3.4006 1.4006
DX75	3.1485	3.1880	3.4936	3.4543	3.1563	3.4006 1.4006
X8	3.1226	3.1233	3.1797	3.1787	3.1786	3.1786 1.1786
DX81	3.1226	3.1233	3.1797	3.1787	3.1786	3.1786 1.1786
DX82	3.1226	3.1233	3.1797	3.1787	3.1786	3.1786 1.1786
DX83	3.1226	3.1233	3.1797	3.1787	3.1786	3.1786 1.1786
DX84	3.1226	3.1233	3.1797	3.1787	3.1786	3.1786 1.1786
X76	1.1191	2.0039	2.1319	2.1319	2.1319	2.1319 14.1319
DX761	1.1191	2.0039	2.1319	2.1319	2.1319	2.1319 14.1319
DX762	1.1191	2.0039	2.1319	2.1319	2.1319	2.1319 14.1319
DX763	1.1191	2.0039	2.1319	2.1319	2.1319	2.1319 14.1319
DX764	1.1191	2.0039	2.1319	2.1319	2.1319	2.1319 14.1319
X175	3.0319	3.1025	2.1702	2.1702	2.1702	2.1702 22.1702
DX1751	3.0319	3.1025	2.1702	2.1702	2.1702	2.1702 22.1702
DX1752	3.0319	3.1025	2.1702	2.1702	2.1702	2.1702 22.1702
DX1753	3.0319	3.1025	2.1702	2.1702	2.1702	2.1702 22.1702
DX1754	3.0319	3.1025	2.1702	2.1702	2.1702	2.1702 22.1702
DX1755	3.0319	3.1025	2.1702	2.1702	2.1702	2.1702 22.1702
X176	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
DX1761	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
DX1762	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
DX1763	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
DX1764	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
DX1765	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
BONDING	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
FB	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
PARCOC	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
PARACC	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
PARCONG	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
CB	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
POLICEP	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
CHURCHP	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
MINSTRP	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
SCHOOLP	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
TEACHRP	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
RELIGITY	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
AUTH	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
FAITH	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
COLLO	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
CLASSES	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
NCBEN	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
DELSC	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
SMORE	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
ALCOHOL	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
DRUGS	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
AVAILD	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
GENDL	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
STRESS	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
PSTRESS	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
SUICIDE	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
PHYSWR	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
STRESS	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
FAMILYC	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
DEPRESS	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
AFFECTD	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
RAGE	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
SELF	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
GUILT	3.4468	3.6820	3.9170	3.9170	3.9170	3.9170 3.9170
XSS	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
PONDS	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
STRES	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
NCBENS	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
MXSS	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
MX1XSS	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
MX1XSSD	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
MXSSD	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
ZSB1	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
ZSBARC1	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228
ZSBEN1	1.1277	2.2796	1.0228	1.0228	1.0228	1.0228 114.0228

B.7b--Standard Deviations for Females by the Five Levels of Sexual Activity.

STANDARD DEVIATIONS						
	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	TOTAL
X1	1.2865	1.5017	1.5406	1.5076	1.4089	1.5842
X2	.0000	.0000	.0000	.0000	.0000	.0000
X3	1.3022	1.2713	1.3311	1.2257	1.2165	1.3289
DX31	.4727	.4458	.4539	.4946	.5026	.4688
DX32	.4686	.4766	.4567	.4645	.4446	.4637
DX33	.2458	.3338	.3031	.2774	.2549	.3006
DX34	.4257	.3821	.3956	.3091	.2906	.3789
X4	1.3222	.4236	.3888	.4345	.4699	.4191
DX41	.4037	.4545	.4499	.4471	.4074	.4438
DX42	.1031	.0594	.0652	.0870	.1507	.0908
DX43	.0009	.5002	.4996	.4972	.5002	.5002
DX44	.4322	.4236	.3888	.4545	.4699	.4191
X5	.0029	.7311	.9555	1.0906	1.1226	1.1226
DX51	.2029	.4375	.3218	.1091	.3799	.4691
DX52	.2029	.4528	.4615	.3872	.3696	.4315
DX53	.0000	.2682	.4876	.4675	.4880	.4398
DX54	.0000	.1443	.3762	.4704	.4304	.4799
DX55	.0000	.0000	.1372	.2530	.2106	.1422
X6	1.2375	1.1353	1.1101	1.1393	1.2117	1.1416
DX61	.2256	.0839	.1445	.1721	.2106	.1514
DX62	.3471	.3908	.3166	.2774	.3468	.3400
DX63	.4257	.4236	.4198	.4390	.3696	.4197
DX64	.4188	.4101	.4329	.3996	.4552	.4313
DX65	.4709	.4705	.4856	.4972	.4630	.4827
X7	1.2266	1.1257	1.1786	1.2255	1.2573	1.1844
DX71	.2256	.0839	.1445	.1721	.2106	.1514
DX72	.4727	.4545	.4199	.4431	.4436	.4393
DX73	.4188	.4561	.4413	.3973	.4374	.4373
DX74	.4037	.3991	.4023	.4327	.3897	.4069
DX75	.3256	.4095	.4478	.4431	.4436	.4329
X8	.2029	.4528	.3460	.3530	.6814	.3560
DX81	.2029	.1028	.1445	.1460	.2106	.1514
DX82	.0000	.0000	.0652	.0000	.0000	.0000
DX83	.3356	.3226	.3366	.3224	.3103	.3400
DX84	.4709	.4705	.4856	.4972	.4630	.4827
X76	.6814	.3560	.3460	.3530	1.0906	.3560
DX761	.4074	.3991	.4023	.4327	.3897	.4069
DX762	.4810	.4866	.4866	.5017	.4495	.4953
DX763	.3298	.3626	.3626	.2077	.4495	.3680
DX764	.1936	.2369	.2369	.3672	.4232	.2681
X175	1.2203	1.5586	1.5386	1.4946	1.6831	1.5559
DX1751	.1767	.3318	.3762	.4761	.4372	.3829
DX1752	.4956	.4995	.5006	.4761	.4817	.4985
DX1753	.1451	.1120	.1027	.1224	.1672	.1178
DX1754	.2639	.2314	.1760	.1721	.1507	.1990
DX1755	.4644	.4810	.4587	.3933	.4817	.4618
X176	1.4637	1.2511	1.0688	.9646	1.0770	1.1560
DX1761	.4257	.3490	.2662	.2091	.2736	.3056
DX1762	.1451	.1640	.1760	.1916	.1835	.1713
DX1763	.1451	.2114	.2369	.2991	.2736	.2411
DX1764	.3026	.4979	.4967	.4991	.4673	.4972
DX1765	.4115	.4144	.4445	.4431	.4232	.4319
BONDING	.4927	.4909	.5251	.5952	.5328	.5423
FB	.6657	.6346	.6925	.8269	.7013	.7092
PARCOC	.8622	.8391	.9162	1.0787	.9248	.9317
PAPACC	.6311	.6131	.6964	.8742	.7735	.7161
PARCONG	.7999	.7749	1.0113	1.0666	1.0291	.9755
CB	.4931	.5478	.5694	.5971	.6847	.5872
POLICEP	.8612	.8252	.8762	.7136	.8645	.8692
CHURCHP	.8226	.8329	.8622	1.0267	.8553	.8653
MINSTRP	.7741	.7690	.7072	.8484	.8153	.7617
SCHOOLP	.7292	.7696	.8274	.8896	.8728	.8230
TEACHRP	.8222	.7947	.8120	.8767	.9710	.8491
RELIGITY	.6083	.7957	.7976	.8922	.8417	.8073
AUTH	.6152	.6463	.6351	.6946	.6956	.6664
FAITH	.5253	.5786	.5569	.5726	.5756	.5679
COLLO	.7758	.6380	.7050	.8514	.8446	.7556
CLASSES	.9551	.7831	.8326	.9197	1.0050	.8605
NCBEM	.2767	.3230	.5591	.6403	.7008	.5948
DELSG	.6090	.8563	1.0523	.9378	1.0538	1.0648
SMOKE	.4257	.6239	.9510	1.1446	1.1352	1.0648
ALCOHOL	.4289	.6113	.9510	1.1446	1.1352	1.0648
DRUGS	.0206	.1192	.6980	1.0645	1.5355	.9551
AVAILD	.7240	1.0440	1.1397	1.0717	1.3407	1.2248
GENDEL	.3374	.7237	.4925	.5209	.6196	.5256
STRESS	.4650	.4288	.4583	.5205	.5128	.4805
PSTRESS	.5094	.4568	.5550	.5350	.6146	.5652
SUICIDE	.6619	.5643	.6928	.5674	.8619	.7259
PHYSUR	.6616	.6798	.6303	.5211	.7131	.6991
ESTRESS	.6620	.5168	.5028	.5548	.5717	.5454
FAMILYC	.7014	.5964	.6636	.6132	.8793	.7142
DEPRESS	.8459	.7105	.7417	.7643	.7646	.7606
AFFECTD	.9337	.8389	.8355	.9131	.9082	.8654
RAGE	.8427	.7007	.7102	.8266	.8373	.7663
SELF	.5447	.4943	.5244	.5106	.5440	.5257
GUILT	.6571	.6303	.5308	.6406	.6098	.6191
XSS	.6498	.7197	.5249	.5167	.6247	.5730
PONDS	.5021	.6411	.6740	.8796	.5505	.8052
STRES	2.4161	2.0106	2.2398	2.7986	2.7990	2.4311
NCBEMS	.8395	1.0154	2.2979	2.9226	3.4672	2.4667
MXSS	.7692	1.7143	2.6071	3.2693	3.4186	3.0614
MX1XSES	13.1723	31.8333	53.0425	67.1644	67.6248	58.5615
MX1XEBD	8.6403	20.5510	43.3016	63.7475	61.7740	51.2613
MXSD	1.1269	1.1414	1.7969	2.4006	2.6541	2.7360
ZS01	.0002	.2531	.5520	.7201	.6957	.6458
ZSXABC1	.0017	.0355	.3141	.2102	.1126	.0826
ZSXBEH1	.0022	.0028	.0548	.2116	1.3600	.6721

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[illegible]

[illegible]

[illegible]

[illegible]

Table B.10--Pearson Correlations for Females (continued).

	STRES	DELBSH	MXSS	MX1XSD5	MX1XSRD	MXSD	SB	SBEN	SBABC
STRES	1.0000								
DELBSH	0.5500	1.0000							
MXSS	0.4500	0.3500	1.0000						
MX1XSD5	0.4000	0.3000	0.4500	1.0000					
MX1XSRD	0.3500	0.2500	0.4000	0.4500	1.0000				
MXSD	0.3000	0.2000	0.3500	0.4000	0.4500	1.0000			
SB	0.2500	0.1500	0.3000	0.3500	0.4000	0.4500	1.0000		
SBEN	0.2000	0.1000	0.2500	0.3000	0.3500	0.4000	0.4500	1.0000	
SBABC	0.1500	0.0500	0.2000	0.2500	0.3000	0.3500	0.4000	0.4500	1.0000

[illegible]

APPENDIX C

APPENDIX C

SUMMARY OF STATISTICAL PROCEDURES

The following summaries of the statistical procedures used in this study are intended to give the reader some idea of their scope and logic. Nie et al. (1975), the SPSS manual, the SPSS Supplement Manual (1976), and Kerlinger and Pedhazur (1973) are relied upon heavily in these reviews. All statistical procedures were executed with SPSS.

Nonadditivity

Nonadditivity is tested using Tukey's test for additivity. In our model the two way analysis of variance assumes that no interaction is present. The presence of nonadditivity would tend to mask simple proportional or multiplicative relationships between row and column effects, thus making the scale less reliable. Nonadditivity reduces the precision of our instruments since the estimated error variance is inflated by the component due to nonadditivity, and this loss of precision increases as the size of the error in the main effects increases. Violation of the additivity assumption is especially serious in the two way factorial fixed effects model. If interaction is present then

the error sums of squares for the additive model estimate is $\sigma_e^2 + \sigma_1^2$ rather than simply the error. The F ratio then in the presence of interaction is a conservative test and a significant result can be interpreted as a rejection of the null hypothesis. A nonsignificant result implies no decision may be made for this particular index. If significant main effects are found under these conditions, specific comparisons between treatment means will not usually detect significant differences due to the inflated estimate of the error variance. If Tukey's test indicates the presence of interaction, then the Tukey test provides a partitioning of the residual sum of squares into interaction and balance components. Therefore, assuming that interactions of higher order than linear by linear are negligible, the balance component may be used as a "purified" estimate of the error sum of squares in a model containing interaction. In effect the presence of interaction can be interpreted as indicating that those who score either high, low, or medium on the set of items in the scale do so consistently (SPSS Supplement Manual, 1976:12-27).

Factor Analysis

The uses of factor analysis in this study are of three kinds: one, exploratory--the exploration and detection of patterning of variables for the reduction of data and searching for additional concepts in this data set; two, confirmatory--a check to see if the variables constructed

primarily from face validity would be confirmed through a statistical procedure such as factor analysis; and three, as a measuring device--for the refinement of indices to be used as new variables in later analysis.

Basically factor analysis is a method by which a minimum number of hypothetical variables are specified in such a way that after controlling for these hypothetical variables, all the remaining (partial) correlations between the variables would become zero.

In this study principal-factor solution two (PA2) is used. What this does is in the initial stages of the factoring process communality estimates are placed on the main diagonal of the correlation matrix.² Initial estimates of these communalities are given by the squared multiple correlation between a given variable and the rest of the variables in the matrix. The number of factors to be reduced from the original correlation matrix is determined

²While principal-component analysis with varimax rotation was used for extracting factors and the construction of scales, it is realized that certain pitfalls exist in using standardized coefficients. Woelfel et al. (1977) explored this issue with a data set which has three known dimensions--distances between U.S. cities with the dimensions being east-west, north-south, and elevation. They found that unstandardized analysis with the variance-covariance matrix provided a better portrayal of the factor loadings where the variables were measured on the same scale. Variables measured on different scales must be analyzed cautiously using this method because of the difference in vector lengths, thus, larger factor loadings for larger lengths.

and then with the communalities placed on the diagonal the same number of factors is extracted. From this reduced matrix the variances accounted for by these factors then become the new communality estimates and are placed on the diagonal. This process continues until the differences between the two successive communality estimates are negligible (Nie et al., 1975:468-490)

From PA2 inferred factors are generated, more commonly known as classical-factor analysis where the observed correlations are presumed to be the results of some underlying regularity in the data. It is assumed that an observed variable is influenced by various determinants, some of which are shared by other variables in the set while others are not shared by any other variable. That part of a variable which is influenced by the shared determinants is called common, and the part which is influenced by idiosyncratic determinants is called unique. It should be understood that the unique part does not contribute to relationships among the variables. Therefore, the observed correlations must be the result of the correlated variables sharing some of the common determinants. The faith on our part is that assumed common determinants will account for all the observed relations in the data and will be smaller than the number of variables (Nie et al., 1975).

Principal components factor analysis was used employing the methods described above with varimax rotation. Rotation involves looking at the variables from a different

point in the circle. Since 160 variables were to be factored the data set needed to be divided into sets of variables for factoring in order to accomodate the 63 variable limit induced by the program. Based on indexes used in Hager (1970) and from proposed indexes for this data set variables were included which had face validity for hanging together. For instance the four main categories of investigation--family structure, bonding, stress, and delinquent behavior were used as categories for sorting the variables. Factor analytic runs were then performed on these sets of variables for all subjects and initial factors were extracted. All of the major categories postulated were found to exist in the data through factoring and rotation. Some new factors emerged, but were generally combinations of variables which loaded (had a high to moderate correlation) with other factors. The factor loadings for the variables are given and discussed further in Appendix A.

Initial factors were extracted using all the subjects--no division was made by sex as was done sometimes in the higher order factoring. Higher order factoring is a factor analysis performed on the scales used in this study which were postulated a priori and confirmed through the first order factor runs. Listwise deletion of missing data was employed for all runs.

Regression Analysis

Multiple regression is a general statistical technique through which one analyzes the relationship between a

dependent variable and a set of independent variables. The language of regression analysis sometimes refers the dependent variable as the criterion and the independent variable as the predictor. Multiple regression can be viewed as a descriptive tool by which the linear dependence of one variable on others is summarized and decomposed, and as an inferential tool by which the relationships in the population are evaluated from the examination of sample data.

The multiple regression model involving more than two independent variables is $Y = A + B_1X_1 + B_2X_2 + \dots + B_kX_k$ where Y represents the estimated value of the criterion variable Y , A is the intercept, and the B_i are partial regression coefficients. B_1 expresses the effect of X_1 on Y when $X_2, \dots, X_k$ are held constant. The B_1 is the expected change in Y with a change of an unit in X_1 when other X_i are held constant.

During the regression process, the A (if not = 0) and B coefficients are selected in such a way that the sum of squared residuals is minimized. Selection of the optimum coefficients using the least squares criteria implies also that the correlation between the actual Y value and the Y estimated value is maximized (Nie et al., 1975:321-342).

The full model in multiple linear regression refers to the equation in which all variables have been entered. The chance probability of the proportion of variance explained by the full model is dependent on the proportion of variance explained by each variable in the model in combi-

nation with the others. The restricted model in multiple linear regression refers to the equation in which all the variables have been entered except the variable(s) of special interest for hypothesis testing. The chance probability of the proportion of variance explained by the restricted model is dependent on the proportion of variance explained by each variable in the model in combination with the others. In comparing the full and restricted models the chance probability refers to the difference in the proportion of variance explained by each model (McNeil et al., 1975).

Multiple regression analysis is the proper statistical procedure for this phase of analysis due to the research design of multiple independent variables predicting to singular dependent variables. Multiple regression provides a means of examining the effects and magnitudes of the effects of more than one independent variable on one dependent variable.

The technique of backward solution was employed in this study. This solution starts out with the squared multiple correlation and each predictor variable is deleted from the regression equation one at a time with the loss to R^2 due to the deletion being studied. By this method each variable is treated as if it were entered last in the equation and by this method it is possible to observe which predictor adds the least when entered last. The loss in R^2

may be assessed on the criterion of meaningfulness as well as significance. Those variables not adding meaningfulness or significance are deleted from the equation. In this study the .10 level of significance was chosen as the significance level for inclusion or deletion of a predictor (Kerlinger and Pedhazur, 1973:289).

Discriminant Analysis

Multiple discriminant analysis will be used to assign individuals to one of five levels of sexual behavior based on their responses to a series of independent variables. This is done by forming linear combinations of the discriminating variables which will maximize the differences between the groups relative to the differences within the groups (Kerlinger and Pedhazur, 1973:340). Discriminant functions are of the form $D_i = d_{i1}Z_1 + d_{i2}Z_2 + \dots + d_{ip}Z_p$ where D_i is the score on discriminant function i , the d 's are the weighting coefficients, and the Z 's are the standardized values of the p discriminating variables. The maximum number of discriminant functions derivable is either one less than the number of groups or equal to the number of discriminating variables.

The research objectives of analysis and classification are used once the discriminant functions have been derived. Analysis provides several tools for the interpretation of data. One is statistical tests for measuring the success with which the discriminating variables

actually discriminate when combined into the discriminant functions. As axes of geometric space the discriminant functions can be used to study the spacial relations among the groups. The weighting coefficients are interpretable as are the coefficients in regression and factor analysis (Nie et al., 1975:434-448).

As a classification technique a set of functions can be derived which will permit the classification of new cases with unknown group memberships. For instance if we find characteristics that do well in predicting sexual behavior, we can predict to those people who are not members of the current sample given generalization considerations.

APPENDIX D

APPENDIX D

STUDENT OPINIONNAIRE

WHAT THIS IS ALL ABOUT

Michigan State University is doing an important study of the opinions young people in Michigan have about themselves and what they do. You can help us best by answering the following questions as clearly and carefully as you can. NO ONE, NOT EVEN YOUR TEACHERS, WILL EVER KNOW WHAT YOU HAVE WRITTEN. THE SUCCESS OF THIS STUDY DEPENDS ENTIRELY UPON YOUR TRUTHFULNESS.

REMEMBER

This is NOT a test. There are NO right or wrong answers (except for a few questions about your age, grade, etc.) Many times young people say the "older generation" doesn't listen to them. Here is your chance to be heard. We value your ideas and want to know what your opinions are. Different people will have different opinions. In order to help and understand young people today, we need YOUR honest opinions.

INSTRUCTIONS

There are 177 questions. Be sure to answer EACH and EVERY question. Each question has only ONE answer. Be sure to mark your answer in the appropriate space on the SEPARATE ANSWER SHEET. DO NOT MARK THE OPINIONNAIRE BOOKLET.

Sample Question:

1. I like to sleep late on weekends.

1. Strongly Disagree
2. Disagree
3. Uncertain
4. Agree
5. Strongly Agree

Elizabeth loves to sleep late whenever she can. She would mark the answer sheet in this way.

1.

1	2	3	4
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BE SURE TO USE THE SPECIAL SCORING PENCILS. AFTER YOU ARE FINISHED, PLACE THE OPINIONNAIRE BOOKLET, THE ANSWER SHEET, AND THE SPECIAL SCORING PENCIL BACK INTO THE LARGE ENVELOPE. YOUR ENVELOPE WILL BE PICKED UP BY THE MICHIGAN STATE UNIVERSITY RESEARCH TEAM.

1. How old are you?
 1. 12 or younger
 2. 13
 3. 14
 4. 15
 5. 16
 6. 17 or older
2. Your sex is
 1. male.
 2. female.
3. How much formal education does your FATHER have?
 1. Some high school or less
 2. Graduated from high school
 3. Some college
 4. Graduated from college
 5. Attended graduate or professional school
4. What is your religion?
 1. Catholic
 2. Jewish
 3. Protestant
 4. No religious preference
5. I am
 1. married or engaged.
 2. going steady.
 3. dating, but not going steady.
 4. Not currently dating.
 5. not yet dating.
6. How many brothers or sisters do you have?
 1. None
 2. One
 3. Two
 4. Three
 5. Four or more
7. Which of the following describes you the best?
 1. Only child
 2. First born child
 3. Second born child
 4. Third born child
 5. Fourth or later born child
8. Which of the following describes your family the best?
 1. I am the only child.
 2. There are only male children.
 3. There are only female children.
 4. There are both male and female children.

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
	(1)	(2)	(3)	(4)	(5)
9. I have faith in people	1	2	3	4	5
10. I have a good appetite	1	2	3	4	5
11. I wish people would pay more attention to me	1	2	3	4	5
12. With the second coming of Christ, the dead will live again	1	2	3	4	5
13. At times, I feel I'm not worth very much.	1	2	3	4	5
14. Most teachers are interesting people	1	2	3	4	5
15. I am proud of my school.	1	2	3	4	5
16. I believe there is a hell where men are punished for their sins.	1	2	3	4	5
17. Few people are really selfish.	1	2	3	4	5
18. Communities could not exist without the help of the police	1	2	3	4	5
19. On the average, how many cigarettes do you smoke in a typical day?					
1. I don't smoke or I've tried it only a few times.					
2. Less than $\frac{1}{2}$ pack					
3. Between $\frac{1}{2}$ and 1 pack					
4. Between 1 and 2 packs					
5. Over 2 packs					

20. I inhale when I smoke.

1. I don't smoke or I've tried it only a few times.
2. Never
3. Sometimes
4. Frequently
5. Very frequently

21. I enjoy smoking cigarettes.

1. I don't smoke or I've tried it only a few times.
2. Never
3. Sometimes
4. Frequently
5. Very frequently

22. Are your parents smokers?

1. No
2. Yes, father only
3. Yes, mother only
4. Yes, both parents

23. How many of your friends smoke?

1. None
2. A few
3. Some
4. Most
5. All

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	Strongly disagree (1)	Disagree (2)	Uncertain (3)	Agree (4)	Strongly agree (5)
24. Most teachers are easy to talk to	1	2	3	4	5
25. Obedience and respect for authority should be the very first requirement of a good citizen.	1	2	3	4	5
26. I believe there is a devil who tries to lead men into sin	1	2	3	4	5
27. My parents are happy that I was born.	1	2	3	4	5
28. I desperately need someone to talk to but no one will listen.	1	2	3	4	5
29. The church (synagogue) helps you live a happier life.	1	2	3	4	5
30. It is unusual for me to have aches and pains.	1	2	3	4	5
31. Sometimes I feel like crying out for love and understanding	1	2	3	4	5
32. School is a friendly place.	1	2	3	4	5
33. I need more affection from someone who cares about me	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

On how many different occasions during the past month have you had	None (1)	Once (2)	2 to 4 times (3)	5 to 7 times (4)	8 or more times (5)
34. beer to drink?	1	2	3	4	5
35. wine to drink?	1	2	3	4	5
36. whiskey to drink?.	1	2	3	4	5

TURN TO PAGE 4.

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	(1) Strongly disagree	(2) Disagree	(3) Uncertain	(4) Agree	(5) Strongly agree
37. Most teachers are interested in their students as individuals	1	2	3	4	5
38. I am bored most of the time	1	2	3	4	5
39. I would rather be in school than most other places.	1	2	3	4	5
40. A person usually knows who he can depend on	1	2	3	4	5
41. You can count on the church (synagogue) to be of help in time of need	1	2	3	4	5
42. I seldom get tired.	1	2	3	4	5
43. My parents talk <u>TO</u> me and not <u>AT</u> me	1	2	3	4	5
44. I seldom have an upset stomach.	1	2	3	4	5
45. I believe there is a divine plan and purpose for every living person and thing.	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	(1) Never	(2) Seldom	(3) Sometimes	(4) Frequently	(5) Very frequently
46. I am ashamed of some of the things I have done	1	2	3	4	5
47. I have felt so mad that I could hardly keep from hitting someone . .	1	2	3	4	5
48. I have felt guilty about getting other people in trouble	1	2	3	4	5
49. I get so angry, I can think of nothing else.	1	2	3	4	5
50. Do you plan to graduate from high school? 1. No 2. I'm not sure. 3. Yes					
51. Are you planning to go to college after high school? 1. No 2. I'm not sure. 3. Yes					
52. How many of your friends plan to go to college? 1. None 2. A few 3. Some 4. Most 5. All					
53. My parents 1. don't want me to go to college. 2. would prefer that I got a job. 3. would not care if I went to college or not. 4. would like me to go to college. 5. expect me to go to college.					
54. Do you think you have the ability to complete four years of college? 1. No 2. Probably not 3. I'm not sure. 4. Yes, probably 5. Yes, definitely					

TURN TO THE
FOLLOWING PAGE.

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

How often have you	Never (1)	Seldom (2)	Sometimes (3)	Frequently (4)	Very frequently (5)
55. held hands with someone of the opposite sex (not including relatives)?	1	2	3	4	5
56. held your arm around or been held by someone of the opposite sex (not including relatives)?	1	2	3	4	5
57. kissed or been kissed by someone of the opposite sex (not including relatives)?	1	2	3	4	5
58. necked (prolonged kissing and hugging) with someone of the opposite sex?	1	2	3	4	5
59. been involved in light petting (feeling above the waist) with someone of the opposite sex?	1	2	3	4	5
60. been involved in heavy petting (feeling below the waist) with someone of the opposite sex?	1	2	3	4	5
61. Have you gone all the way with someone of the opposite sex?					
1. Never					
2. Once					
3. 2 to 5 times					
4. 6 to 12 times					
5. 13 or more times					
62. With how many people of the opposite sex have you gone all the way?					
1. I have not gone all the way.					
2. One person					
3. 2 to 3 people					
4. 4 to 6 people					
5. 7 or more people					
63. Who was the first person you went all the way with?					
1. I have never gone all the way.					
2. A steady date					
3. Someone I have known for a while					
4. A relative					
5. A stranger					
64. How often have you had sexual relations with someone of the <u>SAME</u> sex?					
1. Never					
2. Once					
3. Twice					
4. Three times					
5. Four or more times					

TURN TO THE FOLLOWING PAGE.

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	Strongly disagree (1)	Disagree (2)	Uncertain (3)	Agree (4)	Strongly agree (5)
65. There is hardly anyone lower than a person who does not feel a great love, gratitude and respect for his parents	1	2	3	4	5
66. When I tell my parents the truth, they believe me	1	2	3	4	5
67. I often feel low.	1	2	3	4	5
68. What youth needs most is strict discipline, rugged determination and the will to fight for family and nation	1	2	3	4	5
69. Police should be admired and respected because of their tough job.	1	2	3	4	5
70. Material taught in school is interesting and useful	1	2	3	4	5
71. It's easy to figure out who can be trusted.	1	2	3	4	5
72. My parents enjoy being with each other.	1	2	3	4	5
73. People will seldom take advantage of you.	1	2	3	4	5
74. A typical police officer is a nice guy.	1	2	3	4	5
75. My parents encourage or praise me for what I do	1	2	3	4	5
76. Described below are four different types of students. Choose the one which MOST LIKE YOU.					
1. This person's primary reason for being in school is to obtain vocational or occupational training.					
2. This person feels that the educational side of school is most important but feels he also should be involved in school activities.					
3. This person feels that the social life at school is very important and does just enough school work to get by.					
4. This person is not concerned about school and would prefer to leave school and start making money as soon as possible.					
77. Most of your grades have been					
1. F's 2. D's 3. C's 4. B's 5. A's					

(DO NOT MARK OPINIONNAIRE BOOKLET.)

Compared to others of my age, my	Among the poorest (1)	Below average (2)	Average (3)	Above average (4)	Among the best (5)
78. popularity is	1	2	3	4	5
79. looks are	1	2	3	4	5
80. personality is.	1	2	3	4	5
81. clothes are	1	2	3	4	5
82. physical health is.	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

How often have you	Never (1)	Once (2)	2 to 4 times (3)	5 to 7 times (4)	8 or more times (5)
83. taken things from stores without paying for them?	1	2	3	4	5
84. driven a car without the owner's permission?	1	2	3	4	5
85. stolen money?	1	2	3	4	5
86. driven recklessly?	1	2	3	4	5
87. damaged other people's property on purpose?	1	2	3	4	5
88. beaten up on someone?	1	2	3	4	5
89. run away from home?	1	2	3	4	5
90. gotten into a fist fight?	1	2	3	4	5
91. skipped school?	1	2	3	4	5
92. used a weapon against someone?	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	(1) Strongly disagree	(2) Disagree	(3) Uncertain	(4) Agree	(5) Strongly agree
93. My parents care what happens to me	1	2	3	4	5
94. I have no problem sleeping at night.	1	2	3	4	5
95. The church (synagogue) has something to offer everyone	1	2	3	4	5
96. I can talk to my parents anytime I like.	1	2	3	4	5
97. I feel healthy most of the time.	1	2	3	4	5
98. It's easy for me to talk to my parents about things that bother me.	1	2	3	4	5
99. Most teachers treat students the same.	1	2	3	4	5
100. When dealing with people, you can rely on their honesty.	1	2	3	4	5
101. How many times during the <u>LAST WEEK</u> have you taken aspirin?					
1. None					
2. Once					
3. 2 to 4 times					
4. 5 to 7 times					
5. 8 or more times					

TURN TO THE FOLLOWING PAGE.

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

On how many different occasions have you used	None (1)	Once (2)	2 to 4 times (3)	5 to 7 times (4)	8 or more times (5)
102. marijuana?	1	2	3	4	5
103. hallucinogens or psychedelics (such as LSD, STP, and mescaline)?	1	2	3	4	5
104. amphetamines or methamphetamines (speed such as benzedrine, dexedrine and methedrine)?	1	2	3	4	5
105. hard drugs (such as heroin, cocaine and morphine)?	1	2	3	4	5
106. sedatives (downers such as barbiturates, seconal and phenobarbital)?	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	Strongly disagree (1)	Disagree (2)	Uncertain (3)	Agree (4)	Strongly agree (5)
107. Sometimes I don't care what happens to me	1	2	3	4	5
108. It is important to teach children obedience to authority.	1	2	3	4	5
109. I need to find someone who will really love me	1	2	3	4	5
110. Few people care how I feel about things	1	2	3	4	5
111. I enjoy going to school	1	2	3	4	5
112. My parents are interested in what I do.	1	2	3	4	5
113. At times, I feel my life is empty.	1	2	3	4	5
114. Any good parent should be strict with his children in order to gain their respect	1	2	3	4	5
115. Most teachers should be respected for the work they do.	1	2	3	4	5
116. I believe there is a life after death	1	2	3	4	5
117. Police are fair in their treatment of people.	1	2	3	4	5

118. How easy is it for your parents to talk to each other?

1. Very difficult
2. Somewhat difficult
3. Fairly easy
4. Easy
5. Very easy

119. Rate your parents' general relationship to each other.

1. Very unhappy
2. Unhappy
3. Fairly unhappy
4. Happy
5. Very happy

TURN TO THE NEXT PAGE.

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	(1) Never	(2) Seldom	(3) Sometimes	(4) Frequently	(5) Very frequently
120. My parents are considerate of each other's feelings.	1	2	3	4	5
121. I have tried to kill myself.	1	2	3	4	5
122. I feel bad because I betrayed others when they trusted me. . . .	1	2	3	4	5
123. My parents do nice things for each other	1	2	3	4	5
124. I have caused other people hurt and pain	1	2	3	4	5
125. I have had the urge to kill.	1	2	3	4	5
126. My parents show affection for one another.	1	2	3	4	5
127. My parents agree on important matters.	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

Do you like the following classes?	(1) No	(2) Usually not	(3) I'm not sure	(4) Sometimes	(5) Yes
128. Mathematics.	1	2	3	4	5
129. Vocational-technical (such as typing, shop, and home economics). 1	2	3	4	5	
130. Foreign languages.	1	2	3	4	5
131. Physical education	1	2	3	4	5
132. Science.	1	2	3	4	5
133. English.	1	2	3	4	5
134. Music.	1	2	3	4	5
135. Social science	1	2	3	4	5
136. Art.	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	(1) Never	(2) Seldom	(3) Sometimes	(4) Frequently	(5) Very frequently
137. I am ashamed of some of my thoughts	1	2	3	4	5
138. At times, I feel like exploding	1	2	3	4	5
139. I have thought of different ways of committing suicide.	1	2	3	4	5
140. I have had the urge to beat someone up.	1	2	3	4	5
141. I have been embarrassed by things I have told others.	1	2	3	4	5
142. I have felt like smashing things.	1	2	3	4	5
143. Have you ever thought of killing yourself	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	(1) Strongly disagree	(2) Disagree	(3) Uncertain	(4) Agree	(5) Strongly agree
144. To me, the most important work of the church is saving sinners. . .	1	2	3	4	5
145. My parents like me.	1	2	3	4	5
146. Police are helpful in time of need.	1	2	3	4	5
147. Up to now, my life has been rather discouraging	1	2	3	4	5
148. My parents enjoy having me around	1	2	3	4	5
149. Most teachers are helpful	1	2	3	4	5
150. The Bible is God's word and what it says is true.	1	2	3	4	5
151. People should have more respect for authority	1	2	3	4	5
152. Ministers, priests and rabbis are understanding and easy to talk to	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	(1) Very difficult	(2) Somewhat difficult	(3) Fairly easy	(4) Easy	(5) Very easy
If you wanted to obtain					
153. marijuana, how difficult would it be?	1	2	3	4	5
154. hallucinogens or psychedelics (such as LSD, STP and mescaline), how difficult would it be?	1	2	3	4	5
155. amphetamines or methamphetamines (speed such as benzedrine, dexedrine and methedrine), how difficult would it be?	1	2	3	4	5
156. hard drugs (such as heroin, cocaine and morphine), how difficult would it be?	1	2	3	4	5
157. sedatives (downers such as barbiturates, seconal and phenobar- bital), how difficult would it be?	1	2	3	4	5

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	No (1)	Yes (2)
158. Serious illness is a problem in my family.	1	2
159. Drinking is a serious problem in my family	1	2
160. Divorce or the likelihood of divorce is causing trouble for my family.	1	2
161. Mental illness is causing problems for my family.	1	2
162. The death of a family member or close friend is causing my family trouble.	1	2
163. You have been beaten so badly by your parents that you were ashamed to be seen by others.	1	2

(DO NOT MARK
OPINIONNAIRE BOOKLET.)

	(1) Strongly disagree	(2) Disagree	(3) Uncertain	(4) Agree	(5) Strongly agree
164. People think of me as a delinquent.	1	2	3	4	5
165. Police seldom misuse their authority.	1	2	3	4	5
166. My parents think I'm as good as anyone.	1	2	3	4	5
167. Ministers, priests, and rabbis give up many things for the good of others	1	2	3	4	5
168. I am a delinquent	1	2	3	4	5
169. My parents listen to what I have to say	1	2	3	4	5
170. It is unusual for the police to do something crooked.	1	2	3	4	5
171. I have frequently felt unloved.	1	2	3	4	5
172. Ministers, priests, and rabbis should be admired and respected for the work they do.	1	2	3	4	5
173. I can talk to my parents about anything	1	2	3	4	5
174. God is a heavenly father who watches over and protects us	1	2	3	4	5
175. When do you expect to get married?					
1. Before I'm twenty					
2. In my twenties					
3. After thirty					
4. I don't intend to ever get married.					
5. I am not sure.					
176. When I get married, I want					
1. I don't know or I don't plan to get married.					
2. a family with no children.					
3. a small family (only 1 child).					
4. a medium sized family (2 children).					
5. a big family (3 or more children).					
177. How do you feel about answering these questions?					
1. I liked answering them.					
2. I'm not sure.					
3. I didn't like answering them.					

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