

ADOLESCENTS' MORAL DEVELOPMENT AND SEXUAL RESPONSIBILITY
AS AFFECTED BY PARENT-ADOLESCENT COMMUNICATION
AND PARENTING EFFECTIVENESS

by

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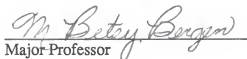
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CHAPTER 1

INTRODUCTION

American society is ambivalent about human sexuality. This cultural ambivalence stems from the various factions present in society holding differing views on the subject. If these views were merely in opposition to one another, the situation would be more simple than it is. However, as it stands, there are complicated overlaps and conflicts among factions. Some want a society where members are free to choose their sexual behavior with no bounds. Some would like to see sexual behavior included in the individual's right to expression, but tempered with sexual responsibility for self and others. Still, others want to dictate moral rules to members of our society, proclaiming, for example, "thou shalt not have premarital sexual intercourse under any circumstances."

These opinions make it difficult for individuals to make decisions about their sexual behavior based upon clear and consistent sexual attitudes. They may hold a sexual attitude closely corresponding with the moral dictum of a particular group, yet behave sexually in a manner representing ideas of another.

Cultural ambivalence is especially evident when one examines the interactions between adults and adolescents. Teens' spontaneous sexual behavior often makes adults uncomfortable. It also makes teens the target for adults' efforts to make them sexually responsible. Although it would be difficult to find a universally acceptable definition of teen sexual responsibility, some components include: a steady dating relationship, contraceptive use (Vance, 1985), the ability to receive love from sources other than sexual intimacy (Petersen, 1985), a perception of the need to be sexually responsible (Sher, Emans, & Grace, 1982), and a high level of moral reasoning (Kohlberg, 1964).

Since sexual responsibility is a complex, multifaceted concept, many factors influence its development. Among them are parent-adolescent communication (Wagner,

1980) and parenting effectiveness (Baumrind, 1967). It is likely that these factors influence sexual responsibility similar to the way they influence development (Olson, Wallace, & Miller, 1984).

Purpose

The purpose of this study was to determine the effects Parent-Adolescent Communication and Parenting Effectiveness have on Moral Development and Sexual Responsibility.

Definition of Terms

The dependent variables of this study were Sexual Responsibility and Moral Development. Sexual Responsibility is behavior associated with being sexually responsible. If adolescents have high educational or future plans, are older, discuss sexual intercourse, use contraceptives, or have decided they are unready for sexual intercourse, they are showing or will be more likely to show sexually responsible behaviors.

Kohlberg (1964) devised three levels of moral development. The process of moral reasoning advances from a first level to a third level. In this study, indicators of the highest level of Moral Development were self-reliance, perceptions of a positive future, better than average ability to cope with stress, congruence of self-perception of sexual knowledge and actual knowledge, and individual age.

Parent-Adolescent Communication and Parenting Effectiveness were the independent variables in this study. Parent-Adolescent Communication was measured using the amount and perception of communication (Barnes & Olson, 1985). Parents and teens who communicate positively with one another have a high level of trust in their relationship, perceive warmth in the parent-adolescent relationship, and have fewer problems.

Effective and ineffective parenting, as referred to in this study, were derived from Baumrind's (1967) work on authoritarian, permissive, and authoritative parenting styles. An authoritative parenting style was associated with effective parenting. Authoritarian and permissive parenting styles were grouped as ineffective parenting. Effective parents display clear boundaries and parental hierarchy. They exhibit neither extreme levels of parental dominance nor child centeredness in their families (Olson, Russell, & Sprenkle, 1980, 1983). They will comfortably talk about human reproduction, discuss contraception, and discuss beliefs about sexual restraint. Ineffective parents do not achieve a balance between cohesiveness and adaptability. Their boundaries may be either rigid or permeable as expressed by a lack of developmentally appropriate rules and a lack of rule enforcement.

Hypotheses

The general hypothesis of this study was: a statistically significant relationship exists between the dependent variables, Moral Development and Sexual Responsibility, and the independent variables, Parent-Adolescent Communication and Parenting Effectiveness.

Specific hypotheses. Eleven specific hypotheses were postulated for this study.

Hypothesis (1). There will be a statistically significant positive correlation between Moral Development and Sexual Responsibility.

Hypothesis (2). There will be a statistically significant positive correlation between Parenting Effectiveness and Parent-Adolescent Communication.

Hypothesis (3). For teenagers who have high levels of Parent-Adolescent Communication, there will be a significant difference in the scores for Moral Development between those with effective parents and those with ineffective parents.

Hypothesis (4). For teenagers who have low levels of Parent-Adolescent Communication, there will be a significant difference in the scores for Moral

Development between those with effective parents and those with ineffective parents.

Hypothesis (5). For teenagers who have ineffective parents, there will be a significant difference in the scores for Moral Development between those with high levels of Parent-Adolescent Communication and those who have low levels of Parent-Adolescent Communication.

Hypothesis (6). For teenagers who have high levels of Parent-Adolescent Communication, there will be a significant difference in the scores for Sexual Responsibility between those who have effective parents and those who have ineffective parents.

Hypothesis (7). For teenagers who have low levels of Parent-Adolescent Communication, there will be a significant difference in the scores for Sexual Responsibility between those who have effective parents and those who have ineffective parents.

Hypothesis (8). For teenagers who have ineffective parents, there will be a significant difference in the scores for Sexual Responsibility between those with high levels of Parent-Adolescent Communication and those who have low levels of Parent-Adolescent Communication.

Hypothesis (9). There will be a statistically significant difference between the scores on Sexual Responsibility for teenagers who have effective parents and high levels of Parent-Adolescent Communication and for those who have ineffective parents and low levels of Parent-Adolescent Communication.

Hypothesis (10). There will be a statistically significant difference on scores of Moral Development between teenagers who have ineffective parents and high levels of Parent-Adolescent Communication and teenagers who have effective parents and low levels of Parent-Adolescent Communication.

Hypothesis (11). There will be a statistically significant difference on scores of Sexual Responsibility between teenagers who have ineffective parents and high levels of Parent-Adolescent Communication and teenagers who have effective parents and low levels of Parent-Adolescent Communication.

CHAPTER 2

REVIEW OF LITERATURE

Conceptual foundations for this study are presented within this chapter. First, sexual attitudes and behaviors related to sexual responsibility will be discussed. Next, the theoretical issues of moral development will be reviewed. Third, parent-adolescent communication and parenting effectiveness are examined in light of their influence on sexual responsibility and moral development.

Responsible Sexual Attitudes and Behaviors

Sexual attitudes are opinions and values about human sexuality and sexual behaviors. Thomson (1982) described adolescents who have responsible attitudes regarding sexuality as able to define the reasons they do or do not engage in sexual intercourse. They have thought about the implications of a sexual relationship and have determined they can cognitively cope with these in a mature fashion. If adolescents choose to exercise responsible sexual behavior by using contraceptives, recognizing their partner's needs, and understanding the implications of their sexual behavior, they understand the consequences of a sexual relationship.

Unfortunately, because we live in a culture that has considerable ambiguity about sex, many teens are confused about their sexual attitudes. They are told simultaneously to be sexually provocative and to remain virginal. Many teens believe both attitudes, but pay lip service to one, and behave according to the other.

The inability to make decisions concerning sexual behavior is not the only result of ambiguous cultural sexual attitudes. Many adolescents would rather not plan for sexual intercourse, believing spontaneity increases intimacy between individuals (Rogel, Zuehlke, Petersen, Tobin-Richards, & Shelton, 1980). They may feel that planning for sexual intercourse negates feelings of love because the act becomes mechanical. Others may actually perceive sex as negative or something that distinguishes "good kids from

the bad kids" (Kisker 1985); thus, responsible preparation and planning imply to them that they are "bad girls" or "bad boys." Teens who feel this way may lack a sense of autonomy that would allow them to make appropriate decisions about their sexual behaviors and attitudes.

Many teens lack skills to decide what sexual behaviors are appropriate (Jorgensen & Sonstegard 1984). They also may become discouraged in decision making because they feel whatever decisions they make will be viewed negatively by their parents. For example, Zabin and Clark (1981) noticed that the most prevalent reason teens did not go to a family planning clinic to obtain contraceptive information was the fear they held of their parents' disapproval of this action. This fear that their parents will find out about their sexual activity demonstrates that parents' attitudes, or at least, adolescents' perception of those attitudes toward adolescent sexuality are important to the adolescent. Thus, it appears parents play an important role in the decision making process of adolescents. This role is most effective when parents communicate sexual attitudes in a positive verbal manner that facilitates adolescents' acceptance of their sexuality (Goldsmith, Gabrielson, Gabrielson, Mathews, & Potts, 1972). Sexual responsibility may be increased when parents communicate with adolescents about the emotional, economic, and physical results of sexual intercourse and encourage adolescents to make decisions based on knowledge of sexual intimacy.

Several variables associated with Sexual Responsibility have been identified. Contraceptive use and the reasoning behind its use, the need for feeling loved as a foundation for sexual intimacy, discourse concerning sexuality, and the effect of career or future orientation on Sexual Responsibility are discussed.

Contraception as an indicator of Sexual Responsibility. As mentioned earlier, the use of contraceptives is one indicator of the ability of adolescents to be sexually responsible because usage involves anticipating possible sexual intercourse and planning

to avoid some physical consequences. For many adolescents, planning for sexual intercourse and obtaining contraceptives imply they are promiscuous. Rogel, et al. (1980) established that adolescents viewed the psychosocial costs of using contraception as higher than the costs of not using contraception. Females, in particular, perceived contraception as a bar to an intimacy they saw as possible only through spontaneous sexual union. They were willing to take the risk of pregnancy rather than to sabotage the opportunity for a physically intimate relationship.

In contrast, a sexually responsible teen would view the cost of not using contraception to be higher than the cost of using it (Herold, 1981). He or she would be able to take into consideration the cost of pregnancy to oneself, one's partner, one's family, and the conceived child. To do this, a teen must be able to function at high levels of cognition and moral reasoning such that future issues, rather than present issues, can be considered. Unfortunately, many teens place a greater weight upon present issues when making sexual decisions (Dembo & Lundell, 1979). Teens who are sexually responsible reflect upon future consequences of their behavior.

Attitudes about love and intimacy. There is evidence adolescents do not have sexual intercourse simply because it is fun. Fun implies something is not serious. On the contrary, females, at least, most often appear to view sexual intercourse as a means to solidify an already established relationship. Vance (1985) did not typically find sexually active females to be promiscuous, but to have maintained a year-long relationship with their male sexual partners. Females, unlike males, most often perceived "being in love" as a prerequisite to sexual intercourse (Miller, McCoy, Olsen, & Wallace, 1986). Perhaps, increased levels of sex hormones during teen years increase males' biological urges for sexual intercourse and females' needs to nurture (Money & Tucker, 1975). Males and females, while engaging in the same act of sexual intercourse may, therefore, engage in it for two different reasons and expect two different outcomes. The female

expects intimacy with commitment, whereas the male views sex without commitment as being a valid sexual standard (Jurich & Jurich, 1974). In this situation, the male will likely be more easily satisfied since, sexual intercourse will temporarily relieve his sexual passions. However, the female may become more quickly dissatisfied if the relationship does not develop more cognitive forms of intimacy. Intimacy entails a relationship marked by the verbal and physical expressions of warmth and caring. The female may want to express intimacy in a verbal manner whereas the male may not.

Receiving love from other sources could help adolescents forego the search for love through sexual relationships. Vance (1985) and Peterson (1985) in studies of Sexual Responsibility noted children who lacked parental attention were more likely to engage in sexual relationships during adolescence. In these studies, the mothers in the single parent families did not have enough time to give the love and support that adolescents need. It is likely adolescents in single-parent families find other sources for love and affection. Females, in particular, were willing to exchange sexual intercourse for what they perceived as intimacy in the dating relationship (Rogel, et al., 1980).

Discussion of sexuality. The discussion of sexuality between parents and adolescents may postpone adolescent sexual intercourse and facilitate the making of responsible sexual decisions (Peterson, 1985; Wagner, 1980; Moore, Petersen, & Furstenberg, 1985). Adolescents who are able to disclose their concerns about the pressures of sexual decision making may feel secure enough about themselves and their relationships with others so as not to "need" sexual intercourse to achieve the feeling of being loved.

Education and career goals. Individuals who pursue greater amounts of education, formal instructional methods or "on the job training," are more likely to be goal- directed. Sher, Emans, and Grace (1982) found girls with career goals used contraceptives more often than did girls with a previous pregnancy. Career-oriented girls

found the costs of pregnancy higher than their noncareer-oriented peers. If adolescent females perceive the need to be sexually responsible, they will be more sexually responsible.

In summary, adolescents' sexual attitudes reflect culturally ambiguous beliefs about sexuality. These attitudes are the result of sexual ambiguity, insecurity, and youthful egocentrism. Due to their cognitive level of functioning (Piaget, 1948), some adolescents may think egocentrically. Perhaps, the combination of egocentrism, feelings of insecurity about being lovable and sexual ambiguity diminish adolescents' ability to use moral reasoning in determining the consequences of sexually irresponsible behavior.

Moral Development

Moral reasoning is a process that can only be explained theoretically. According to Dewey (1964), Moral Development occurs in stages. The ability to act and think in a sexually responsible manner is dependent upon ability to morally reason which in turn, is contingent upon attainment of specific Moral Development stages. A child's moral reasoning increases in each stage and each stage builds upon its predecessor. Once a stage is completed, a child cannot go back to a previous stage of Moral Development.

This stage theory of Moral Development grew out of the popular cognitive stage theory of Piaget (1948). Piaget described three levels of Moral Development (a) premoral, (b) conventional, and (c) autonomous. During the pre-moral stage correct behavior implies a sense of obligation to rules. In the conventional stage being right entails literal obedience to rules and submission to power and punishment. In the autonomous stage purpose and consequences of following rules are considered, and obligation is based upon the concept of reciprocity.

Kohlberg's theory of Moral Development. Piaget's concepts of three stages of Moral Development were expanded by Kohlberg (1964) who reconceptualized the stages

as levels and added several stages within each of them. According to Kohlberg, the first level of moral reasoning, the pre-conventional level consists of two stages, used by children ages four to nine years old. Stage one within this level is punishment and obedience orientation. Children in this stage satisfy their own needs and obey only out of a fear of getting caught and punished. This stage is based on the social status or physical attributes an individual possesses. Those with prestige, power, and physical attractiveness are viewed as being more important persons than those who lack these qualities.

Stage two is instrumental hedonism orientation. In this stage children do what feels good without regard for negative consequences or impact on others, and they begin to bargain with others when they want something. Stage two is based on whether or not individuals can satisfy their own needs by meeting the needs of others.

The second level, the conventional level, occurs between ages nine to fifteen and includes stages three and four. Stage three is good-boy, nice-girl orientation. Children will conform to the conventional rules of society to gain peer acceptance and approval. Recognition of good behavior occurs when they are rewarded via the reception of love and affection from significant others for what is perceived as "good" behavior. This stage originates from the feelings of love and empathy family members have for the individual. Stage four is law and order orientation. Obeying laws now becomes the means of displaying "good" behavior. Any negative consequences of following these laws are not considered. Following the rules preserves the authority of the society and prevents guilt. Individuals functioning at this stage establish their morality on a religious order of rights and duties.

The third level, post-conventional, occurs around age sixteen or older. It is the highest level of Moral Development and includes stages five and six. Stage five is social contract orientation whereby adolescents will compromise laws and rules to benefit

others, understand there is no single "right" way, respect others' opinions, and become concerned with human rights. These ideas are based on the individual's appreciation of community welfare as well as existence, and the quality thereof being a universal human right.

The sixth stage is universal ethical principle orientation. In this stage individuals will follow their own conscience, and put aside concern for negative personal consequences in order to defend universal values and principles of respect for human rights and ethics. For example, life is considered sacred and every human being possesses inherent value.

Adolescents and adults do not automatically function at the post-conventional level; they may still function at a lower level of moral reasoning. However, only adolescents and adults can function at the post-conventional level because it is dependent upon the ability to think logically and abstractly.

Sexual responsibility and moral reasoning. As mentioned earlier, not all adolescents function at the post-conventional level of Moral Development. They may function at the pre-conventional level where not engaging in sexual activity is due to fear of being punished by their parents or society. Some adolescents may engage in sexual activity because it feels good and have no regard for their own or their partner's welfare. At this level of reasoning, Sexual Responsibility as manifested by use of contraception may be nonexistent.

Adolescents at the conventional level may conform to society's rules or obey religious dogma about sexual standards; a "good girl or boy" does not engage in premarital sex. Institutions, the church for example, reinforce such beliefs. Without morally reasoning for themselves as to what is right, adolescents may often acquiesce to what they perceive as being a moral authority. This acquisition of another's beliefs leads to blind obedience and in some cases a dearth in moral understanding. Adolescents who

submit themselves to moral subjugation often do engage in premarital sex, but do not use contraception (Thomson, 1982). Using contraception would reveal they are "bad boys and girls" who contrived the breaking of moral codes.

When adolescents function at the post-conventional level of Moral Development they are able to understand the importance of sexual behaviors to the individual and society. Because these adolescents understand their behavior impacts upon others, those functioning at this level are more likely to use contraception when engaging in sexual intercourse. They realize the potential negative impacts of conception, loss of education, poverty, conflictual relationships, and maladaptive children on the parents, the unborn child, and society.

If adolescents at this level choose not to engage in sexual intercourse, their decision could be based on reason. They may not believe they have the emotional maturity to appreciate sexual intercourse, thus they choose to forego this action until a future time when they feel they are more mature. This choice is made with the understanding of the emotional, physical, and social consequences inherent in the act of sexual intercourse.

Adolescents, who do not act in a sexually responsible manner or hold attitudes that are not congruent with Sexual Responsibility, are functioning at either the pre-conventional or conventional level of Moral Development, at least in the area of human sexuality. Based upon what was stated by Blatt and Kohlberg (cited in Kohlberg, 1975) and Gilligan, Kohlberg, Lerner and Belenky (cited in Jurich & Jurich, 1974) concerning Moral Development and classroom teaching, parents can help their children to become more sexually responsible by facilitating development of moral reasoning. Parents can communicate encouragement for moral reasoning by raising moral issues with adolescents and allowing them to discuss value conflicts. Family encouragement for decision making by the adolescent demonstrates a willingness of the parents to allow

their adolescent to question and discuss social and parental standards with the parents, thereby enhancing the possibility for moral growth.

Enhancing Moral Development

People can advance to higher levels of moral reasoning via values clarification (Kohlberg, 1975), a process whereby children are challenged by moral dilemmas. Situations or scenarios pit one value against another and require decision-making. Values clarification implies no single "correct" answer. Children learn what their most important values are and why they find them important via communication and effective parenting.

Communication. The challenges that bring about value clarification and moral growth are elicited by communication between adults and children. Although they possess the cognitive ability to think abstractly and reason morally, teens lack the experiences to use these abilities (Kohlberg, 1964). Communication with parents can make up for lack of experience as parents stimulate adolescents' thoughts by questioning their reasons for ideas and beliefs as well as providing opportunities for the adolescent to express opinions and concerns in an unpretentious environment.

Both verbal and nonverbal communication occur on various levels. Good verbal communication implies people feel comfortable discussing experiences, thoughts and feelings. Nonverbal communication involves body language as well as action. Together, verbal and nonverbal communication make for powerful message transmission (Bandura, 1977). For instance, discussion content conveys information, but the occurrence of a discussion establishes importance. When parents are willing to discuss highly politicized issues such as sexuality, they give the message to their teens that this is an important subject to question (Furstenberg, Herceg-Baron, Shea, & Webb, 1984; Moore, et al., 1985). A study by Wagner (1980) found that if teens have the opportunity to communicate with parents about sexual knowledge, their sexual behavior tends to be

more responsible than it might otherwise have been. This suggests the messages parents send teens concerning sexual anxiety, early premarital sex, and contraceptive use do have impact.

In communication, how the receiver perceives a message may be different than the meaning the sender intended. Although verbal messages may be unclear because of this, nonverbal messages are particularly subject to interpreter's error especially if the interpreter does not ask for validation of the message received (Bandura, 1977). Furthermore, when verbal and nonverbal messages do not agree they cause problems. For instance, parents may think they are giving one message by verbally stating "I would prefer you not engage in sexual intercourse, but if you do, please use contraception." Concurrently, they may be giving teens the opposite nonverbal message, "I don't really want you to use contraception," by yelling at them for having contraceptives in their dresser drawer. Thus, teens' perceptions of their parents' message may differ from the message their parents think they are sending (Miller, et al., 1986). Teens may become confused, and all communication regarding sexuality between parent and teen from that moment on is diminished.

Quality of relationship. The ability to communicate is important to the quality of the parent-adolescent relationship. For instance, Lewis and Spanier (1979) viewed communication as a way people reward each other. People demonstrate respect by communicating positively and listening to one another. Therefore, in parent-adolescent relationships, adolescents learn whether their parents respect them and develop identity via communication (Cooper, Grotevant, Moore, & Gordon, 1982). Communication of parental acceptance of the adolescent has also been found to be positively correlated with the level of self-esteem the adolescent possesses (Coopersmith, 1967).

Because of this increased sense of self-esteem, adolescents who feel support via communication find it less costly to explore identity issues and clarify values (Cooper et

al., 1982). Their ability both to trust their environment and to be comfortable with the challenge of values is important to the process of Moral Development. According to Holstein (1972) and Stanley (1978), when parents discuss life issues with their children, the children find it easier to think at higher levels of moral reasoning when they become adolescents, because they will be challenged to think rationally.

Parenting Styles

Since action of parents towards children is also a form of communication, one can classify communication according to parenting styles. The styles of parenting are prominently discussed in the literature of Baumrind (1967). Two parenting styles, authoritarian and permissive, do not lend themselves to good communication. The third parenting style, authoritative, is based on unambiguous and growth-enhancing communication (Baumrind, 1966). For the purpose of this study, authoritative parenting was viewed as effective parenting and authoritarian and permissive parenting styles were viewed as ineffective parenting. Effective parenting sets high, yet developmentally appropriate, standards for children's behavior. Parents use explanations, demonstrations, and other-oriented reasoning to teach children how to behave (Hoffman, 1970; White & Watts, 1973). Children learn to view themselves according to their behavior and how they relate to others. They learn that others judge their intrinsic qualities according to their behavior; thus, they tend to be sensitive to the feelings of others and are cooperative, happy, resistant to temptation, and socially responsible (Parke, 1977).

Ineffective parenting can be either authoritarian or permissive. Both styles lack effective confrontational and negotiation skills. They either do not set standards for children, or set standards that are too high or not enforced. The result is a child without behavioral boundaries who is easily frustrated by failure to meet standards (Baumrind, 1967). Because ineffective parents do not discuss their reasoning, their children do not learn how to reason morally. These parents either expect children's unquestioning

obedience and obtain it by using discipline techniques of physical punishment, shame, and ridicule or they give children few rules and set low standards of compliance. Since decision-making skills require recognition of boundaries, limited resources and an understanding of the reasoning behind the decision, children who have matured in an atmosphere deficient in these qualities may not possess the ability to make sexually responsible decisions (Miller, et al., 1986).

Fathers and parenting styles. Teens' sexual attitudes and behaviors can be traced to specific nonverbal communication with their father. Fathers nonverbally communicate approval of and disapproval of attitudes and behaviors to teens via the role of monitor, rule enforcer, and disciplinarian (Fox & Colombo, 1984). An ineffective father may communicate sexual attitudes to teens by disciplining them for masturbating or shaming them for being curious about body parts. An effective father would tell the child that it is not ok to masturbate in public places, but the act of masturbation is not evil. Teens may accept these attitudes and feel guilty when they are sexually aroused.

Ineffective fathers may also have few rules or guidelines for the adolescent to follow; therefore, the adolescent does not learn right from wrong. The father rarely demonstrates behavioral restraint to the adolescent via discipline. Adolescents receive the message that all behavior including sexual behavior is neither good nor bad and will be more likely to act selfishly to meet their own needs. Because they lack the maturity to make sexually responsible decisions, these adolescents probably will not use contraception nor be able to give logical reasons as to why they choose to engage in sexual intercourse.

Because fathers are more commonly the nonverbal conveyers of sexual attitudes, they traditionally play a secondary role in effective parenting (Fox & Colombo, 1984). This role usually consists of making sure boundaries are firm by backing up the mother's verbal discipline of the children. The mother will verbally explain to the children why

their behavior is wrong and why they are being punished for it. Mothers tend to be more comfortable in the realm of verbal communication (Fox & Colombo, 1984).

The effective parenting style incorporates both verbal communication and nonverbal communication. Ineffective parenting gives nonverbal messages of total acceptance by not verbally communicating disapproval to a misbehaving child and by relying on punishing and shaming nonverbals with little explanation as to why behavior is wrong.

Maternal parenting styles and teens. Mothers who engage in effective parenting, as evidenced by their willingness to be candid about the discussion of sex and contraception with their daughters, rear girls who postpone sexual activity until they are past the teen years (Furstenberg, et al., 1984). Jones and Philliber (1983) added that when mothers or parents communicate support for teens, adolescents engage in sexual activity at a later age, use contraception more effectively, and avoid pregnancy.

Robbins, Kaplan and Martin (1985) found that mothers who give little attention to their daughters, because they are working full-time, give the nonverbal message that the girls should take on additional household responsibilities. Due to ineffective mothering, these girls contend with added responsibilities, lack of supervision, and limited parental warmth. They also have higher pregnancy rates than daughters of unemployed mothers (Hansson, O'Conner, Jones, & Blocker, 1981). Perhaps, these girls are seeking adult styled sexual relationships in an attempt to establish what they perceive to be intimacy.

Effective mothering leads to positive parent-adolescent relationships. Mothers who are warm and affectionate towards their daughters also verbally communicate acceptance of them. Due to their approachable communication style, these mothers are viewed as confidants, valid supervisors, and resources of information by their daughters, i.e. authoritative parenting. Mothers who parent ineffectively do not communicate established standards of behavior to their adolescents. Instead, they use methods of

surveillance such as checking with the teen's friends to find out what the teen was doing, to discover their daughter's sexual behavior. Not only do these mothers have less positive relationships with their daughters, but also their covert methods fail to yield accurate information about their daughters' sexual practices (Fox & Medlin, 1985).

It would appear that adolescents are more willing to self-disclose to parents who use effective parenting (Fox & Medlin, 1985). The parent has the opportunity to relay and discuss knowledge of sexuality and contraception to teens via teens' trust in the parent not to judge or humiliate them. Parents who choose to discuss these issues with teens will cognitively challenge adolescents to use reason when acting sexually, thus enhancing the possibility teens will act sexually responsible.

Effective parents communicate knowledge. If parents possess knowledge of sexuality and contraception, they may discuss this with their teen via effective parenting; however, many parents do not have this knowledge. They give their children books to read or provide inadequate and sometimes inaccurate information. Rothenberg (1980) found that because many parents do not have adequate sexual knowledge, most of the information teens receive concerning sexuality comes from their peers.

This information indicates that effective parenting is not enough to teach Sexual Responsibility to adolescents. Parents need to be knowledgeable about sexuality in order to effectively communicate it to their teens. A study by Presser (1977) found discussions between the mother and the adolescent about contraception did not enhance the knowledge teens have about sexuality nor reduce the pregnancy risk. Other research (Moore et al., 1985) found positive parental communication to be a deterrent to sexual activity among teens. Thus, effective parenting may help the teen traverse adolescence without engaging in sexual activity.

Summary

Sexual responsibility is closely associated with Moral Development, both combine to mold youthful character. Both appear to be products of Parent-Adolescent Communication and Parenting Effectiveness. Moral Development is dependent upon the achieved cognitive level of the individual (Piaget, 1932). Without certain abilities that come with age, a child cannot obtain the advanced stages of Moral Development. Individuals will reason morally at whatever stage of Moral Development they are; however, only the latter stages of Moral Development facilitate moral reasoning which incorporates understanding complex relationships.

Parents must communicate with their children in order for the children to ascertain parents' beliefs concerning morality. Verbal communication about sexual matters demonstrates to the adolescent that this matter is important because parents are taking time to converse about it. Nonverbal communication often reinforces the already verbally communicated message. The willingness of parents both to listen to their children's concerns and to offer advice can be defined by adolescents' and parents' perception of the parent-adolescent relationship. These perceptions are important to consider because they may differ among family members (Barnes & Olson, 1985). Validating thoughts and opinions about the relationship keeps it clear of ambiguities which impede confidence.

Parenting Effectiveness is an outgrowth of communication. It is a construct defined by various behaviors that communicate acceptance, trust, guidance, care, love and their opposites. Those who parent effectively not only communicate to their children that they expect them to be responsible for taking care of themselves, making decisions, accomplishing developmentally appropriate tasks, but also that they love and accept their children's individuality. Because boundaries are semi-permeable, open discussion of sexuality can be accomplished. With these boundaries and expectations provided by

effective parents, adolescents learn to utilize their ability to morally reason at the latter stages of Moral Development. As advanced moral reasoning becomes the norm, Sexual Responsibility will increase.

CHAPTER 3

METHODS

The data used in this study were a subsample of data collected from a larger on-going longitudinal study of information obtained from adolescents, their parents, and members of small midwestern communities with an average population of 3500. Questions in the survey addressed a variety of variables related to adolescent sexual behavior.

Sample

The larger sample consisted of 189 students in grades seven through twelve and their parents. Data were collected with a survey questionnaire administered in the classroom during school hours. Of those designated as subjects, 74% responded to the questionnaire. Those who did not respond either were refused permission to do so by their parents or refused to participate themselves. To help establish validity of the data, same-sex focus groups composed of randomly selected students from each grade were used. These groups were asked about their impressions of the items used in the questionnaire. It was hoped that the groups would give feedback concerning how well the items revealed the information the researchers were wanting to acquire.

The sample of students used in this study ranged in age from 12 to 18 and covered grades seven through twelve. Students were selected when data were also available for each of their two parents. The total number of groups of students and parents used in this sample was 52. There were 29 male student subjects and 23 female student subjects. Of the total 52 students, 51 lived at home. One respondent reported living away from home. The present dating status of the students varied considerably; 48% had not yet dated, 18% were casually dating one person, 14% were casually dating more than one person, and 20% were seriously dating one person.

There were 52 male parent respondents and 52 female parent respondents ranging in age from 28 to 50 years. Most families in the sample were Caucasian and earned between \$15,000 and \$40,000 annually; however, Hispanic, lower and upper socio-economic status classes were also represented in the sample. The income of the 2% lower socio-economic standing was below \$15,000, and the income of the 27% upper socio-economic standing was above \$40,000. The educational level of the parents ranged from finishing elementary school to attending graduate or professional school. About 44% of the fathers had obtained only a high school education and 33% had some college or technical training. In the sample of mothers, 44% had finished high school while 36% had some college or technical training. Approximately 77% of the parent sample group were first time marrieds. Religious affiliations of the sample were diverse. The average number of years for marriages in this group was 16.5 years.

Data Collection

Student responses were collected at school during regular school hours. Considerable effort was made to assure complete confidentiality to each student. To increase confidentiality, no school district personnel were directly involved in the actual data collection. The researchers, assisted by upper level students from Kansas State University, administered the questionnaires and conducted the focus group meetings. Parent forms were mailed to participants along with a stamped envelope to return the surveys directly to Kansas State University. Several reminders were mailed to parents in an attempt to obtain completion and return of the questionnaires.

Instrument

Items (189 items for high school/middle school students and 108 items for the parents) on the questionnaire pertained to demographics, aspirations for the future, self-esteem, peer relations, situational and relationship variables, religiosity, sex education, sex roles, and family relationships. The parents filled out a slightly different form than

their children did, however the items used for this data set were included in both the parents' and the teen's forms. Demographics, measures pertaining to Moral Development and Sexual Responsibility attitudes, Parenting Effectiveness, and Parent-Adolescent Communication were items from both questionnaire forms that were used in this study (see Appendix A for items).

The dependent variable, Moral Development consisted of the following items from the questionnaire: (a) parents would be upset with the way I am sexually; (b) pregnant females should stay in school and try to graduate; (c) it would be best if pregnant females stayed out of sight while they are pregnant; (d) birth control would be used more often if it were easier to get; (e) information about birth control makes young people more likely to become sexually active; (f) age at first intercourse; (g) age of first partner; (h) degree of power to make life choices; (i) the sum of scores on variables, teachers are not interested in what I say/do, by teacher's standards I am a failure, and teachers do not like me very much; and (j) an indicator of the gap between self-rated knowledge about sex and knowledge about birth control and the sum of the scores on questions assessing sexual knowledge. These questions included when is the woman's risk of getting pregnant greatest, how many hours after intercourse is the sperm able to fertilize the egg, where are a male's sperm made, where do a female's eggs come from, where does fertilization take place, where does the fetus develop, the first time for sexual intercourse is always safe anyhow, there is just as high a risk of getting pregnant as anytime, and she will automatically get pregnant.

The dependent variable Sexual Responsibility was composed of the following items: (a) future educational plans; (b) the following questions on perceived pressure to have sexual intercourse, do you feel pressure to have sex from dating partners, pressure to have sex from boyfriends, pressure to have sex from father, pressure to have sex from stepmother, pressure to have sex from stepfather, pressure to have sex from society,

pressure to have sex from yourself; (c) age of marriage subtracted from the difference between age of subject and the age when subject wants to reproduce, (d) I feel more comfortable not having sex, (e) future spouse will be happier if I restrain now; (f) I don't believe that I am ready yet; (g) I would feel terrible about myself if I had sex; (h) my parents would be terribly disappointed in me if I had sex; (i) a pregnancy would probably result; (j) I don't have sex because I fear sexually transmitted diseases; (k) reason for first intercourse; (l) how much did you discuss intercourse before; (m) did you and partner use birth control; (n) what kind of birth control; (o) what is the relationship between you and first partner; and (p) how long had you been dating your partner of first intercourse.

The independent variable Parenting Effectiveness was constructed from the following questions: (a) parents and children discuss punishment; (b) children make the decisions in the family; (c) children have a say in their discipline; (d) in solving problems kids suggestions are followed; (e) different persons act as leader in our family; (f) family members consult on decisions; (g) frequently parents make the decisions; (h) family expectations are made clearly; (i) I answer my kids questions about sex; (j) I talk with kid regarding premarital sexual intercourse decision; (k) my kid talks to me about premarital sexual intercourse decision; (l) I indirectly let my kid know how I feel.

The independent variable Parent-Adolescent Communication consisted of the following components: (a) Parent-Adolescent Communication score for kids (fathers) subtracted from the Parent-Adolescent Communication score for fathers, which resulted in a degree of agreement between fathers and teens concerning the perception of Parent-Adolescent Communication; (b) Parent-Adolescent Communication score for kids (mothers) subtracted from the Parent-Adolescent Communication score for mothers which resulted in the degree of agreement between mothers and teens concerning the perception of Parent-Adolescent Communication; (c) the sum of the agreement score for fathers and mothers subtracted from the sum of the Parent-Adolescent Communication

scores for fathers, mothers, kids (fathers), and kids (mothers) equals the relative Parent-Adolescent Communication score.

Statistical Analysis

All scores for the variables were standardized to z scores using the condcriptive procedure in SPSSX. Standardization was necessary to establish comparability among the scores. After appropriate examination of the univariate characteristics of each variable, a 2x2 MANOVA test was used for the analysis of data. The MANOVA test considered the relationship between the independent variables Parenting Effectiveness and Parent-Adolescent Communication and the dependent variables Moral Development and Sexually Responsibility. In addition to the overall test for significant affects of the independent variables on dependent variables, specific a priori contrasts based on the research hypothesis was tested. One reason the MANOVA was chosen over the ANOVA for this study was that the MANOVA is able to take into consideration the interrelation among the dependent variables Moral Development and Sexual Responsibility where ANOVA is incapable of doing this.

The MANOVA test was performed three times; once for the full sample of subjects (52 subjects, 29 males and 23 females), once for the group of teens who had not had sexual intercourse (30 subjects), and once for the group of teens who had sexual intercourse (18 subjects). Four cases were determined to be unacceptable. Due to the adolescents' varied sexual experience the scores on Moral Development and Sexual Responsibility might be different; therefore, the three groups were used for comparison.

CHAPTER 4

RESULTS

Since a MANOVA was chosen as the optimal design for the study, it was important to begin the process of analysis by checking the assumptions for the use of the design. After checking the assumptions, the MANOVAs revealed little effect of the independent variables on the combined dependent variables, but did reveal some univariate effects.

Multivariate Assumptions

In order to meet the requirements for using a MANOVA design, five assumptions must be met. These assumptions are: normality of dependent variables, linearity, outliers, homoscedasticity, and relationship between dependent variables.

Univariate normality of dependent variables. To test for univariate normality, normal probability plots, detrended normal plots, and the stem-and-leaf plots were used. Sexual Responsibility in the full sample had a reasonable degree of normality. The normal plot revealed some slight departures from normality at the lower and upper ends of the distribution of scores. The detrended normal plot showed no pattern in scores and most scores clustered around zero. The stem-and-leaf display also indicated a reasonable degree of normal spread in the scores.

Using the same tests for univariate normality of Sexual Responsibility for Virgins included normal probability plots, detrended normal plots, and the stem-and-leaf plots. The normal plot revealed a straight line between the upper and lower ends of the range. The detrended normal plot showed a moderate cluster of numbers around the zero point with a minimum of pattern to the number plot. The stem and leaf display indicated a fairly normal spread in scores with a slight skew to the right. For Non-Virgins the normal plot revealed a slightly bowed line between points -1.8 and 1.8. The detrended

normal plot showed a moderate cluster of numbers below the zero point at -.125. There was a minimum of pattern of scores. The stem and leaf display indicated scores that were skewed to the right.

Multivariate normality of combined dependent variables. The standardized residual scatterplot was used to indicate whether there was multivariate normality by showing the difference between the predicted scores and the observed scores. Residuals, which are numerical indicators of the difference between predicted and observed scores, were used to check the normal distribution of scores (Tabachnick & Fidell, 1983 p. 97). If the assumption of multivariate normality is met, the distribution of the residuals for each variable should be approximately normal. An adequate degree of multivariate normality was obtained for Moral Development and the measure of Sexual Responsibility in the full sample and each of the two subsamples. In each group, the residuals for Moral Development deviated slightly at the upper and lower ends of the distribution. For each subsample, the variable Sexual Responsibility showed adequate multivariate normality, although, it showed some departure throughout the distribution.

Linearity

Linearity is determined by examining residual scatterplots using standardized values of both predicted scores and errors of prediction. If all assumptions are met, the points will be scattered on the plot without any pattern (Tabachnick & Fidell, 1983 p.93.) No pattern was found between the Sexual Responsibility scores and those of Moral Development. No pattern was found for Sexual Responsibility in the Non-Virgins subsample and Moral Development scores. Therefore, the assumptions were met for linearity.

Outliers. Several univariate outliers, where z-scores were greater than the absolute value of 3.00 were identified for Moral Development and Sexual Responsibility. Scores for these cases were recoded to a score of 3.00 to retain the deviance of that case

while removing the extreme outlier effect on means. This left all scores within three standard deviations from the mean. From examining the Box-Plots several within group outliers were identified. There were two outliers detected for Sexual Responsibility, but only one was extreme. There was one outlier detected for the variable Moral Development. For the subsample of Virgins, the Box-plots for Sexual Responsibility showed no outliers and two outliers were detected for the variable Moral Development, one of those being extreme. For Non-Virgins, the Box-plots for Sexual Responsibility showed no outliers. The variable Moral Development had one extreme outlier.

To check for multivariate outliers a Mahalanobis distance was calculated using the SPSSX Regression procedure (Tabachnick & Fidell, 1983 p.75). No multivariate outliers were found.

Homoscedasticity. The MANOVA procedure assumes that each dependent variable has the same degree of variance across cells defined by the independent variables and that the covariance between the dependent variables is constant across cells. Homoscedasticity of variance tests (Cochrans C and the Bartlett-Box F) were employed to detect the difference between the variance of Moral Development and of Sexual Responsibility across levels of Parenting Effectiveness and Parent-Adolescent Communication. Box's *M* test was used to test for equality of the covariance matrices for Moral Development and Sexual Responsibility across cells.

For the full sample the subsample of Virgins, and subsample of non-virgins all of the Cochrans C and the Bartlett-Box F tests yielded nonsignificant results, indicating equality of variance for each dependent variable across cells. Similarly, a nonsignificant result for the Box's *M* test supported equality of covariance between Moral Development and Sexual Responsibility across cells.

The results from the above tests for equality of variance and covariance across cells supported the finding that the scores for the dependent variables had essentially normal distributions (Tabachnick & Fidell, 1983, p. 81).

Relationship between dependent variables. The decision to use a MANOVA was made because it was assumed that there was a relationship between the dependent variables. The Bartlett test for sphericity was used to test the within cells correlations. If the significance level of the test result was small (less than 0.05), the hypothesis that the population correlation matrix was an identity matrix was rejected and it could be assumed the variables were adequately related. A nonsignificant result was obtained for each of the three subsamples, $p = .546$ for the full sample, $p = .678$ for the Virgin subsample, $p = .541$ for the Non-Virgin subsample, which indicated that the dependent variables were not related in the full sample nor in any of the subsamples.

Summary. The tests described above indicated that the assumptions required for use of MANOVA had been met reasonably well. However, it did appear the dependent variables were only minimally related. This was supported by very low within-cell correlations between Moral Development and Sexual Responsibility.

MANOVA

Three 2x2 between-subjects multivariate analyses of variance were run to determine the relationships between the independent variables and a combination of the dependent variables using SPSSX. Three analyses were run; one for the entire sample and one each for adolescents who were still Virgins and for those who were not. Although four tests were available to test multivariate effects, the Pillai's Criterion test was used because it was robust in situations where assumptions had not been perfectly met or where sample sizes were small, as they were for some of the analyses in the study. If these tests yield significant scores, the null hypothesis that there was no effect of the independent variables on the combination of dependent variables can be rejected. In

addition to the overall test of significance for the interaction effect of the two independent variables, the significance of the effect of each independent variable alone on the dependent variable combination was tested (see Table 1, Table 2, and Table 3).

Interaction effects. For the full sample of 52 subjects, there was no significant interaction effect of Parent-Adolescent Communication and Parenting Effectiveness on the combined dependent variables; Sexual Responsibility and Moral Development, $F(2, 47) = 1.00, p = .376$. Similar nonsignificant interaction effects of the independent variables were found for the subsamples of 30 Virgins, $F(2, 25) = 1.31, p = .287$. There was no interaction effect for the subsample of 18 Non-Virgins due to an empty cell for low Parent-Adolescent Communication and low Parenting Effectiveness.

Table 1.

Summary of Multivariate Analysis of Variance for Two-Factor Crossed Design: Parent-Adolescent Communication and Parent Effectiveness (Full Sample)

Source of Variation	Sums of Squares		Multivariate		Univariate F Values		
	Moral Dev.	Sexual Resp.	Pillais Criterion	df	F	df	Sexual Resp.
Parent-Adolescent Communication	8.21 -5.14	-5.14 3.22	.21	2	6.23*	1	9.78*
Parent Effectiveness	.57 -.37	-.37 .25	.02	2	.44	1	.68
Interaction	1.00 .87	.87 .75	.04	2	1.00	1	1.20
Error	40.32 -1.51	-1.51 46.42		47			48

* - Significance less than or equal to .05

** - Significance less than or equal to .01

Table 2.

Summary of Multivariate Analysis of Variance for Two-Factor Crossed Design: Parent-Adolescent Communication and Parent Effectiveness (Virgins Only).

Source of Variation	Sums of Squares		Multivariate		Univariate F Values		
	Moral Dev.	Sexual Resp.	Pillais Criterion	df	F	Moral Dev.	Sexual Resp.
Parent-Adolescent Communication	4.20 .01	.01 .00	.22	2	3.44*	1 7.09*	.00
Parent Effectiveness	.02 .11	.11 .84	.03	2	.36	1 .03	.75
Interaction	1.25 -.76	-.76 .46	.10	2	1.31	1 2.12	.41
Error	15.40 2.01	2.01 29.10		26			25

* - Significance less than or equal to .05

** - Significance less than or equal to .01

Table 3.

Summary of Multivariate Analysis of Variance for Two-Factor Crossed Design: Parent-Adolescent Communication and Parent Effectiveness (Non-Virgins Only).

Source of Variation	Sums of Squares		Multivariate		Univariate F Values		
	Moral Dev.	Sexual Resp.	Pillais Criterion	df	F	df	Moral Dev. Sexual Resp.
Parent-Adolescent Communication	1.9 2.72	2.72 3.89	.20	2	1.80	1	1.63 3.44
Parent Effectiveness	.07 .57	.57 4.17	.21	2	1.83	1	.07 3.69
Interaction	---	---	---	--	---	-	---
Error	17.49 6.35	6.35 16.98		15		14	

* - Significance less than or equal to .05

** - Significance less than or equal to .01

Effect of parenting effectiveness. For the full sample of 52 subjects a significance of $F(2, 47) = .44, p = .644$ was found. This number indicated no significant relationship between the combined variables Sexual Responsibility and Moral Development and Parent Effectiveness. The subsample of 30 Virgins showed a significance of $F(2,25) = .36, p = .699$. This number indicated no significant relationship between the combined variables Sexual Responsibility and Moral Development and Parenting Effectiveness. In the subsample of 18 Non-Virgins a significance of $F(2,14) = 1.83, p = .197$ was found. This number indicated no significant relationship between the combined dependent variables Sexual Responsibility and Moral Development and the independent variable Parenting Effectiveness.

Effect of Parent-Adolescent Communication. A significant relationship was found for two subsamples. For the full sample of 52 subjects $F(2,47) = 6.23, p = .004$. The subsample of 30 Virgins indicated a significance of $F(2,25) = 3.44, p = .048$. For the subsample of 18 Non-Virgins a significance of $F(2,14) = 1.79, p = .202$ was found. These numbers indicated a significant relationship between the combined dependent variables Sexual Responsibility and Moral Development and the independent variable Parent-Adolescent Communication for the full sample and the subsample of Virgins and a nonsignificant relationship for Non-Virgins.

Univariate Tests

The MANOVA results also included univariate results for interaction effects and effects of each independent variable.

Interaction effects on Moral Development. For the full sample of 52 subjects there was no significant relationship between Moral Development and the interaction of Parent-Adolescent Communication and Parenting Effectiveness; $F(1,48) = 1.20, p = .279$ was found. Similarly, with significance of $F(1,26) = 2.12, p = .158$, a nonsignificant relationship existed between Moral Development and the interaction of Parent-

Adolescent Communication and Parenting Effectiveness for the sample of 30 Virgins. No scores were reported for the sample of 18 Non-Virgins. The cell was empty due to the absence of cases that had both Parent-Adolescent Communication and Parenting Effectiveness as independent variables and Moral Development as a dependent variable.

Parenting Effectiveness on Moral Development. No significant relationship was found for the full sample of 52 subjects, $F(1,48) = .68, p = .413$, the sample of 30 Virgins $F(1,26) = .03, p = .871$, and the sample of 18 Non-Virgins, $F(1,15) = .07, p = .800$ between Moral Development and Parenting Effectiveness.

Parent-Adolescent Communication on Moral Development. A significant relationship, significance of $F(1,48) = 9.77, p = .003$, between Moral Development and Parent-Adolescent Communication was found for the full sample of 52 subjects. Similar results were found for the subsample of 30 Virgins, significance of $F(1,26) = 7.09, p = .013$, but not for the subsample of 18 Non-Virgins, $F(1,15) = 1.63, p = .221$.

Interaction effect on Sexual Responsibility. For the full sample of no significant relationship existed between Sexual responsibility and the interaction of Parent-Adolescent Communication and Parenting Effectiveness; $F(1,48) = .78, p = .383$ was found. A similar nonsignificant effect was found for the subsample of Virgins $F(1,26) = .41, p = .527$. No scores were reported for the sample of Non-Virgins. The cell was empty due to the absence of cases that had both Parent-Adolescent Communication and Parenting Effectiveness as independent variables and Sexual Responsibility as a dependent variable.

Parenting Effectiveness on Sexual Responsibility. For the full sample there was a nonsignificant relationship between Sexual Responsibility and Parenting Effectiveness $F(1,48) = .25, p = .617$. Similar nonsignificant effects of Parenting Effectiveness on Sexual Responsibility were found for the subsamples of 30 Virgins $F(1,26) = .75, p = .394$ and for the subsample of 18 Non-Virgins $F(1,15) = 3.69, p = .074$.

Parent-Adolescent Communication on Sexual Responsibility. No significant results were obtained for the full sample of 52 subjects $F(1,48) = 3.33, p = .074$, for the sample of 30 Virgins $F(1,26) = 0, p = .996$, nor for the sample of 18 Non-Virgins $F(1,15) = 3.44, p = .083$. These numbers indicated no significant relationship between Sexual Responsibility and Parent-Adolescent Communication.

Summary

Although the assumptions were nearly met for using a MANOVA, use of the MANOVA proved inappropriate for the data. Therefore, no correlation between the dependent variables was found. The multivariate analysis demonstrated a significant effect by Parent-Adolescent Communication on the combined variables Moral Development and Sexual Responsibility variables. The univariate analysis demonstrated a significant effect by Parent-Adolescent Communication on Moral Development.

CHAPTER 5

DISCUSSION

Although the data adequately met the assumptions for the use of the MANOVA, little relationship was found between the dependent variables. Despite the lack of relationship between dependent variables, a 2x2 MANOVA was employed to examine the relationship between independent variables and the dependent variables for the full sample, and two subsamples: Virgins, and Non-Virgins.

General Hypothesis:

The general hypothesis predicted there will be a statistically significant effect of the independent variables, Parent-Adolescent Communication and Parenting Effectiveness on the dependent variables, Moral Development and Sexual Responsibility. No interaction effect was found for the full sample or the Virgin subsample. The Non-Virgin subsample did not contain enough cases to test this hypothesis. Thus, there was no support for the general hypothesis.

Hypothesis 1:

Hypothesis one predicted there will be a statistically significant positive correlation between Moral Development and Sexual Responsibility. Since there was no correlation between the two variables, and since a nonsignificant relationship was found using the Bartlett test for sphericity of the dependent variables, there was no relationship between Moral Development and Sexual Responsibility. This was true for the full sample and the two subsamples; thus, there was no support for this hypothesis.

Hypothesis 2:

Hypothesis two predicted there will be a statistically significant positive correlation between Parenting Effectiveness and Parent-Adolescent Communication. No statistically significant positive correlation was found between Parenting Effectiveness and Parent-Adolescent Communication; therefore, hypothesis two was not supported.

Hypothesis 3:

Hypothesis three predicted that, for teenagers who have high levels of Parent-Adolescent Communication, there will be a significant difference in the scores for Moral Development between those with ineffective parents as compared to those with effective parents. There was no significant interaction effect for the full sample population nor for the subsample of Virgins and since one cell for Non-Virgins was empty, the interaction effect could not be tested for that subsample. Since no interaction was found between the two independent variables and Moral Development, hypothesis three was not supported.

Hypothesis 4:

Hypothesis four predicted that, for teenagers who have low levels of Parent-Adolescent Communication, there will be a significant difference in the scores for Moral Development between those with effective parents and those with ineffective parents. There was no significant interaction effect for the full sample population and the subsample of Virgins. For the Non-Virgin subsample, the cell for low Parenting Effectiveness and low Parent-Adolescent Communication was empty. Therefore, there was no interaction between the two independent variables and Moral Development, and hypothesis four was not supported.

Hypothesis 5:

Hypothesis five predicted that, for teenagers who have ineffective parents, there will be a significant difference in the scores for Moral Development between those with high levels of Parent-Adolescent Communication and those who have low levels of Parent-Adolescent Communication. There was no significant interaction effect for the full sample population or the subsample of Virgins and for the Non-Virgin subsample, the cell for low Parenting Effectiveness and low Parent-Adolescent Communication was empty. Since there was no interaction between the two independent variables and Moral Development, hypothesis five was not supported.

Hypothesis 6:

Hypothesis six predicted that, for teenagers who have high levels of Parent-Adolescent Communication, there will be a significant difference in the scores for Sexual Responsibility between those who have effective parents and those who have ineffective parents. There was no significant interaction effect for the full sample population and the subsample of Virgins and for the Non-Virgin subsample, the cell for low Parenting Effectiveness and low Parent-Adolescent Communication was empty. Since there was no interaction between the two independent variables and Moral Development, hypothesis six was not supported.

Hypothesis 7:

Hypothesis seven predicted that, for teenagers who have low levels of Parent-Adolescent Communication, there will be a significant difference in the scores for Sexual Responsibility between those who have effective parents and those who have ineffective parents. There was no significant interaction effect for the full sample population and the subsample of Virgins, and for the Non-Virgin subsample, the cell for low Parenting Effectiveness and low Parent-Adolescent Communication was empty. With no interaction between the two independent variables and Sexual Responsibility, hypothesis seven was not supported.

Hypothesis 8:

Hypothesis eight predicted that, for teenagers who have ineffective parents, there will be a significant difference in the scores for Sexual Responsibility between those with high levels of Parent-Adolescent Communication and those who have low levels of Parent-Adolescent Communication. There was no significant interaction effect for the full sample population and the subsample of Virgins and for the Non-Virgin subsample, the cell for low Parenting Effectiveness and low Parent-Adolescent Communication was

empty. With no interaction between the two independent variables and Sexual Responsibility, hypothesis eight was not supported.

Hypothesis 9:

Hypothesis nine predicted there will be a statistically significant difference between the scores on Sexual Responsibility for teenagers who have effective parents and high levels of Parent-Adolescent Communication and for those who have ineffective parents and low levels of Parent-Adolescent Communication. There was no significant interaction effect for the full sample population and the subsample of Virgins and for the Non-Virgin subsample, the cell for low Parenting Effectiveness and low Parent-Adolescent Communication was empty. Since, there was no significant interaction between the two independent variables and Sexual Responsibility, hypothesis nine was not supported.

Hypothesis 10:

Hypothesis ten predicted there will be a statistically significant difference on scores of Moral Development between teenagers who have ineffective parents and high levels of Parent-Adolescent Communication and teenagers who have effective parents and low levels of Parent-Adolescent Communication. There was no significant interaction effect for the full sample population, the subsample of Virgins and the subsample of Non-Virgins. Therefore, no interaction between the two independent variables and Moral Development, occurred and hypothesis ten was not accepted.

Hypothesis 11:

Hypothesis eleven predicted there will be a statistically significant difference on scores of Sexual Responsibility between teenagers who have ineffective parents and high levels of Parent-Adolescent Communication and teenagers who have effective parents and low levels of Parent-Adolescent Communication. No significant difference was found for the full sample population, the subsample of Virgins and the cell for Non-Virgins acted upon by both independent variables was empty due to an absence in cases.

Therefore, no interaction was found between the two independent variables and Sexual Responsibility, and the hypothesis eleven was not supported.

Further Analysis

The MANOVA results revealed little information about the effect of independent variables on the dependent variables, other than a few univariate effects. Therefore, to better understand the relationships between the variables examined in this study, correlations between independent variables and dependent variables were examined.

Correlational analysis. For the full sample, a correlation matrix was constructed to determine if there were relationships between the independent variables, between the independent variables and the dependent variables, and between the dependent variables. Parent-Adolescent Communication correlated with Moral Development, $-.32$ ($p < .05$), and with Sexual Responsibility, $.36$ ($p < .05$). No significant correlation was found between Parent-Adolescent Communication and Parenting Effectiveness, Parenting Effectiveness and Moral Development or between Parenting Effectiveness and Sexual Responsibility.

Additional ANOVAS. Since the correlation analysis revealed few significant linear relationships between variables, and since one correlation was in a direct opposition to what was expected, several scatterplots were made. These scatterplots suggested some non-linear relationships existed between some of the variables. Since a non-linear relationship would result in a low correlation, the bivariate correlations could have been misleading about the true relationship between the variables. Furthermore, since the independent variables Parent-Adolescent Communication and Parenting Effectiveness as used in the MANOVA, only were collapsed into two-level ordinal variables (high and low), precision in measuring their effect on the dependent variable may have been inadequate. Therefore, three levels of the independent variables were created by splitting the scores into clusters of low, medium and high. This process facilitated better examination of the differences between cell means and their patterns,

and, in particular, to determine if curvilinear relationships existed between any of the independent and dependent variables.

When significant effects of independent variables were found, multiple comparison tests were used to compare the means of a dependent variable at the low and high levels, low and medium levels, and the medium and high levels of independent variables. Main effects and simple main effects of independent variables and dependent variables were plotted. Using these methods, the relationships between the independent variables and the dependent variable could be better understood.

From the ANOVAs, it was found that the dependent variable means varied considerably at specific levels of independent variables. The Scheffé test was used to isolate the sources responsible for the observed significant effects obtained from the omnibus F test (Keppel, 1973, pp. 135-136) and means were diagrammed to show the relationship between a dependent variable and an independent variable. For the simple main effect, if the lines drawn were parallel, then there was no interaction between independent variables. If lines were not parallel or if they intersected, an interaction between a level or the levels of the independent variable existed.

Moral Development.

For the full sample there was a positive significant main effect of Parenting Effectiveness ($p < .05$) between level two, medium, and level three, high, (see Table 4 and Figure 1).

The full sample also showed a significant main effect ($p < .01$) between level one, low, and level three, high of Parent-Adolescent Communication on Moral Development (see Table 4 and Figure 2). Between the medium level and the high level of Parenting Effectiveness, Moral Development was negatively affected by Parent-Adolescent Communication.

Table 4.

Analysis of Variance of Parenting Effectiveness and Parent Adolescent Communication on Moral Development (Three Levels for Each Independent Variable, Full Sample).

Source of Variance	Sum of Squares	df	Mean Squares	F
Parenting Effectiveness	5.91	2	2.95	4.00*
Parent-Adols Communication	10.33	2	5.16	7.00**
Interaction	2.50	4	.62	.85
Error	31.77	43	.74	

Table 5. Analysis of Variance of Parenting Effectiveness and Parent Adolescent Communication on Sexual Responsibility (Three Levels for Each Independent Variable, Virgins Only).

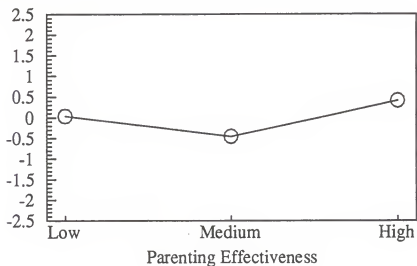
Source of Variance	Sum of Squares	df	Mean Squares	F
Parenting Effectiveness	4.54	2	2.27	2.20
Parent-Adols Communication	.32	2	.16	.16
Interaction	4.08	4	1.02	.99
Error	21.72	21	1.03	

* - Significance less than or equal to .05

** - Significance less than or equal to .01

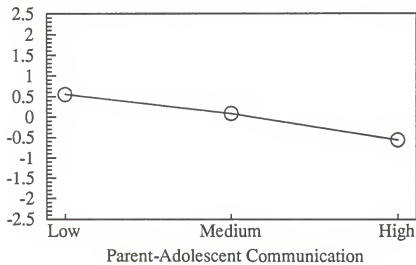
**Figure 1. Cell Means for Moral Development
(Main Effects for Full Sample)**

Standardized Means



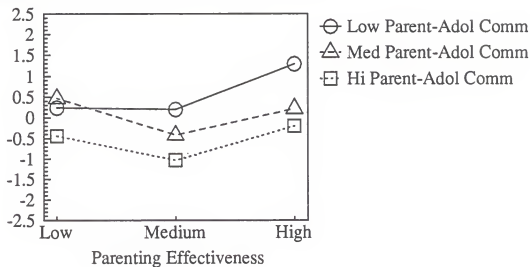
**Figure 2. Cell Means for Moral Development
(Main Effects for Full Sample)**

Standardized Means



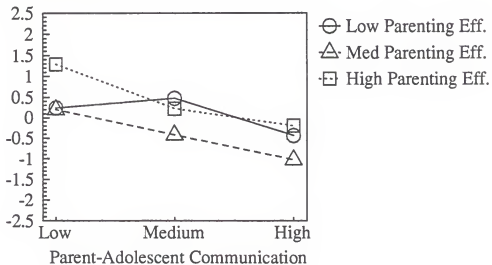
**Figure 3. Cell Means for Moral Development
(Simple Main Effects for Full Sample)**

Standardized Means



**Figure 4. Cell Means for Moral Development
(Simple Main Effects for Full Sample)**

Standardized Means



For the full sample there was no significant simple main effects of Parent-Adolescent Communication on Moral Development by any of the levels of Parenting Effectiveness (see Table 1 and Figure 3). Regardless of the level of Parenting Effectiveness, Moral Development was not significantly affected by the interaction of independent variables, Parenting Effectiveness and Parent-Adolescent Communication. This was illustrated by the nearly parallel lines drawn for each level of Parenting Effectiveness by Moral Development.

For the full sample there were no significant simple main effects of Parenting Effectiveness on Moral Development for any level of Parent-Adolescent Communication (see Table 4 and Figure 4). However, from the diagram it can be seen that Parent-Adolescent Communication had a different effect at different levels of Parenting Effectiveness.

For the Virgin subsample there was no significant main effect between all levels of Parenting Effectiveness (see Table 5 and Figure 5). Moral Development was not significantly affected by Parenting Effectiveness.

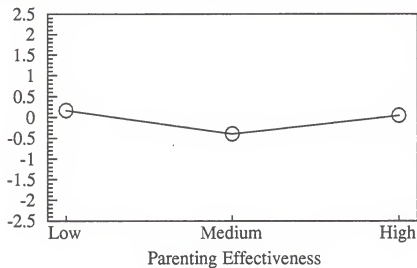
Although there was a negative effect of Parent-Adolescent Communication on Moral Development that approached significance ($p=.06$), the main effect for the Virgin subsample for all levels of Parent-Adolescent Communication was not significant (see Table 5 and Figure 6). Moral Development was not significantly affected by Parent-Adolescent Communication.

For the Virgin subsample there were no significant simple main effects of Parenting Effectiveness on Moral Development (see Table 5 and Figure 7). From the diagram it can be seen that Parenting Effectiveness had little effect on Moral Development regardless of the level of Parent-Adolescent Communication.

For the Virgin subsample there were no significant simple main effects of Parent-Adolescent Communication on Moral Development (see Table 5 and Figure 8). From the

**Figure 5. Cell Means for Moral Development
(Main Effects for Virgin Subsample)**

Standardized Means



**Figure 6. Cell Means for Moral Development
(Main Effects for Virgin Subsample)**

Standardized Means

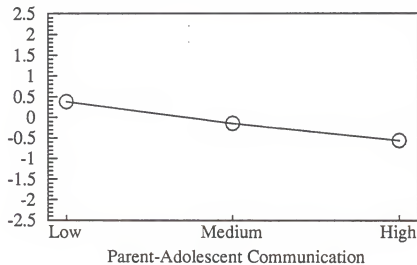


Table 6. Analysis of Variance of Parenting Effectiveness and Parent Adolescent Communication on Moral Development (Three Levels for Each Independent Variable, Non-Virgins).

Source of Variance	Sum of Squares	df	Mean Squares	F
Parenting Effectiveness	2.21	2	1.11	1.19
Parent-Adols Communication	6.90	2	3.45	3.72
Interaction	2.02	3	.73	.56
Error	9.30	10	.93	

Table 7. Analysis of Variance of Parenting Effectiveness and Parent Adolescent Communication on Sexual Responsibility (Three Levels for Each Independent Variable, Full Sample).

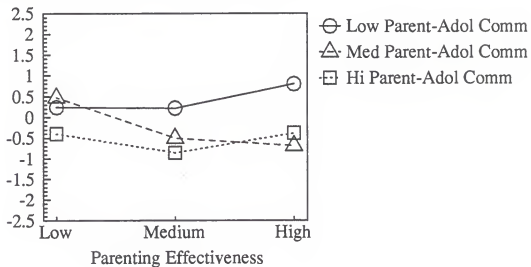
Source of Variance	Sum of Squares	df	Mean Squares	F
Parenting Effectiveness	.82	2	.41	.43
Parent-Adols Communication	8.50	2	4.25	4.49*
Interaction	.98	4	.24	.26
Error	40.74	43	.95	

* - Significance less than or equal to .05

** - Significance less than or equal to .01

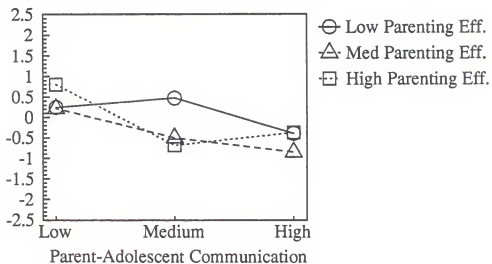
**Figure 7. Cell Means for Moral Development
(Simple Main Effects for Virgin Subsample)**

Standardized Means



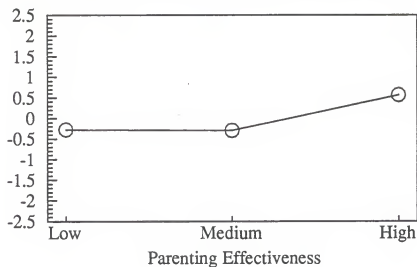
**Figure 8. Cell Means for Moral Development
(Simple Main Effects for Virgin Subsample)**

Standardized Means



**Figure 9. Cell Means for Moral Development
(Main Effects for Non-Virgin Subsample)**

Standardized Means



**Figure 10. Cell Means for Moral Development
(Main Effects for Non-Virgin Subsample)**

Standardized Means

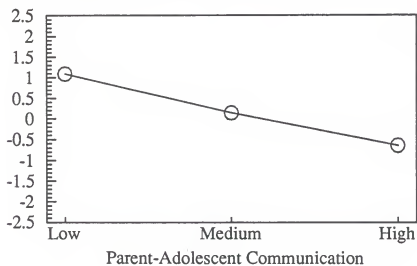


diagram it can be seen that Parent-Adolescent Communication had no effect on Moral Development regardless of the level of Parenting Effectiveness.

There was no significant main effect for the Non-Virgin subsample between all levels of Parenting Effectiveness (see Table 6 and Figure 9). Moral Development was not significantly affected by Parenting Effectiveness.

For the Non-Virgin subsample Parent-Adolescent Communication negatively affected Moral Development. The level of significance; however, only approached significance ($p=.06$). Thus, there was no significant main effect of Parent-Adolescent Communication on Moral Development (see Table 6 and Figure 10).

For the Non-Virgin subsample there were no significant simple main effects of Parenting Effectiveness on Moral Development (see Table 6 and Figure 11). From the diagram it can be seen that Parenting Effectiveness at low and medium levels had little effect on Moral Development at levels of Parent-Adolescent Communication; however at high levels of Parenting Effectiveness, it appeared that there was some positive effect on Moral Development at levels of Parent-Adolescent Communication. This observed effect was not significant.

For the Non-Virgin subsample there were no significant simple main effects of Parent-Adolescent Communication on Moral Development (see Table 6 and Figure 12). From the diagram it can be seen that at all levels of Parent-Adolescent Communication, Moral Development was not affected by levels of Parenting Effectiveness.

Sexual Responsibility.

For the full sample there was no significant main effect of Parenting Effectiveness on Sexual Responsibility (see Table 7 and Figure 13). Sexual Responsibility was not significantly affected by Parenting Effectiveness.

For the full sample there was a significant main effect of Parent-Adolescent Communication on Sexual Responsibility ($p<.05$). At low and medium levels of Parent-

Figure 11. Cell Means for Moral Development
 (Simple Main Effects for Non-Virgin Subsample)
 Standardized Means

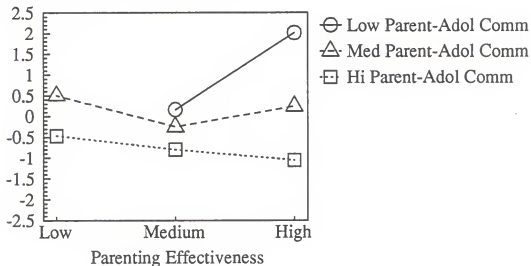
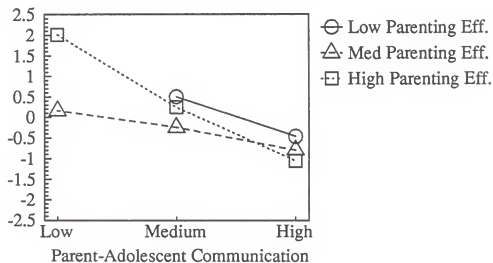


Figure 12. Cell Means for Moral Development
 (Simple Main Effects for Non-Virgin Subsample)
 Standardized Means



Adolescent Communication and for low and high levels of Parent-Adolescent Communication Sexual Responsibility was significantly affected (see Table 7 and Figure 14).

The full sample there were no significant simple main effects for Sexual Responsibility between the levels of Parenting Effectiveness (see Table 7 and Figure 15). From the diagram it can be seen that Parenting Effectiveness had little effect on Sexual Responsibility at different levels of Parent-Adolescent Communication.

For the full sample there were no significant simple main effects for Sexual Responsibility between the levels of Parent-Adolescent Communication (see Table 7 and Figure 16). From the diagram it can be seen that Parent-Adolescent Communication had no effect on Sexual Responsibility at different levels of Parenting Effectiveness.

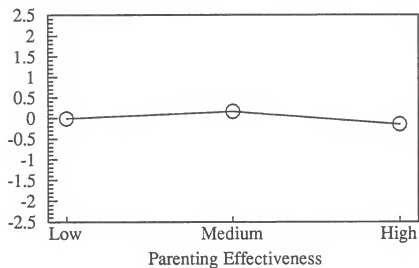
For the Virgin subsample there was no significant main effect for all levels of Parenting Effectiveness (see Table 8 and Figure 17). Sexual Responsibility was not significantly affected by Parenting Effectiveness.

For the Virgin subsample there was no significant main effect for all levels of Parent-Adolescent Communication on Sexual Responsibility (see Table 8 and Figure 18). Sexual Responsibility was not significantly affected by Parent-Adolescent Communication.

For the Virgin subsample there were no significant simple main effects on Sexual Responsibility for any of the levels of Parenting Effectiveness (see Table 8 and Figure 19). Regardless of the level of Parenting Effectiveness, Sexual Responsibility was not significantly affected by the interaction of independent variables, Parenting Effectiveness and Parent-Adolescent Communication. From the diagram it can be seen that interaction between Parent-Adolescent Communication and Sexual Responsibility increased as Parenting Effectiveness level increased.

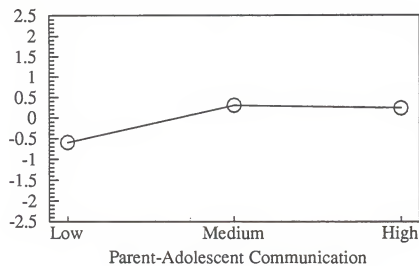
**Figure 13. Cell Means for Sexual Responsibility
(Main Effects for Full Sample)**

Standardized Means



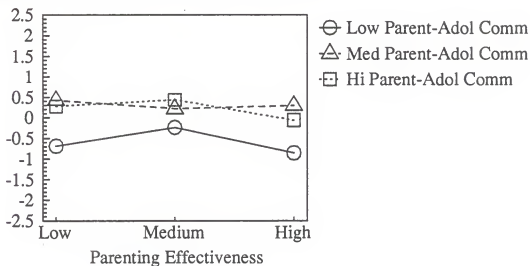
**Figure 14. Cell Means for Sexual Responsibility
(Main Effects for Full Sample)**

Standardized Means



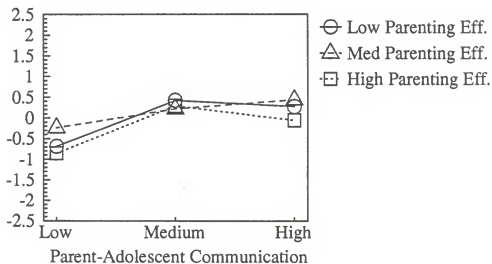
**Figure 15. Cell Means for Sexual Responsibility
(Simple Main Effects for Full Sample)**

Standardized Means



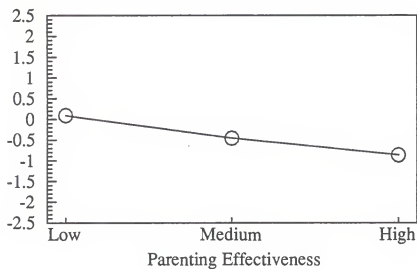
**Figure 16. Cell Means for Sexual Responsibility
(Simple Main Effects for Full Sample)**

Standardized Means



**Figure 17. Cell Means for Sexual Responsibility
(Main Effects for Virgin Subsample)**

Standardized Means



**Figure 18. Cell Means for Sexual Responsibility
(Main Effects for Virgin Subsample)**

Standardized Means

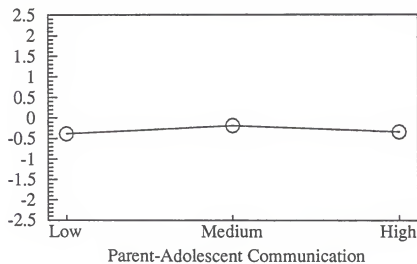


Table 8. Analysis of Variance of Parenting Effectiveness and Parent Adolescent Communication on Sexual Responsibility (Three Levels for Each Independent Variable, Virgins Only).

Source of Variance	Sum of Squares	df	Mean Squares	F
Parenting Effectiveness	1.20	2	.60	1.01
Parent-Adols Communication	3.81	2	1.90	3.22
Interaction	2.55	4	.64	1.08
Error	12.44	21	.60	

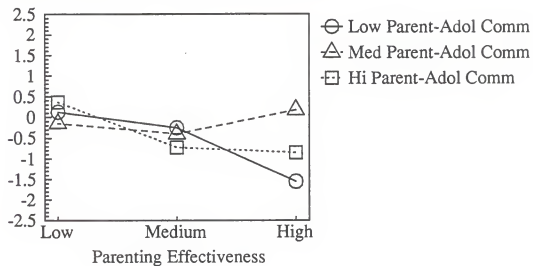
Table 9. Analysis of Variance of Parenting Effectiveness and Parent Adolescent Communication on Sexual Responsibility (Three Levels for Each Independent Variable, Non-Virgins).

Source of Variance	Sum of Squares	df	Mean Squares	F
Parenting Effectiveness	4.60	2	2.30	4.83*
Parent-Adols Communication	4.15	2	2.07	4.36*
Interaction	8.26	3	2.75	5.80*
Error	4.76	10	.48	

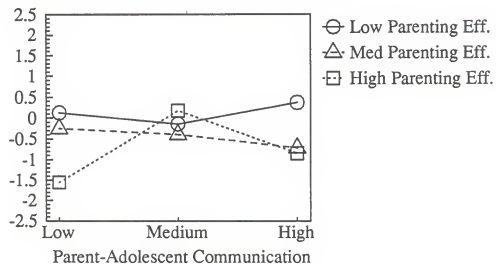
* - Significance less than or equal to .05

** - Significance less than or equal to .01

**Figure 19. Cell Means for Sexual Responsibility
(Simple Main Effects for Virgin Subsample)**
Standardized Means

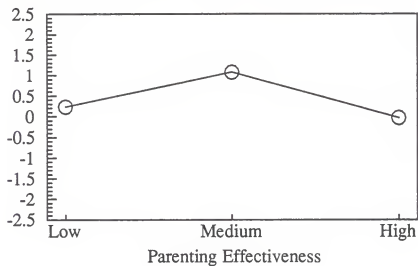


**Figure 20. Cell Means for Sexual Responsibility
(Simple Main Effects for Virgin Subsample)**
Standardized Means



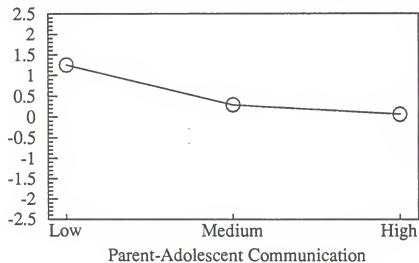
**Figure 21. Cell Means for Sexual Responsibility
(Main Effects for Non-Virgin Subsample)**

Standardized Means

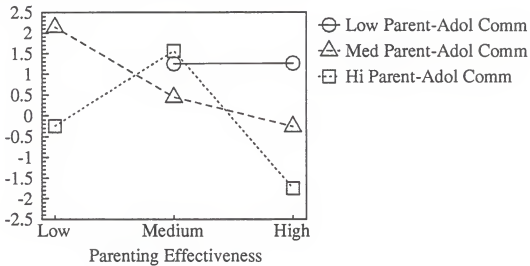


**Figure 22. Cell Means for Sexual Responsibility
(Main Effects for Non-Virgin Subsample)**

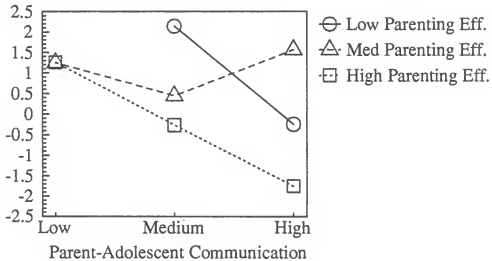
Standardized Means



**Figure 23. Cell Means for Sexual Responsibility
(Simple Main Effects for Non-Virgin Subsample)**
Standardized Means



**Figure 24. Cell Means for Sexual Responsibility
(Simple Main Effects for Non-Virgins)**
Standardized Means



For the Virgin subsample there were no significant simple main effects on Sexual Responsibility by any of the the levels of Parent-Adolescent Communication (see Table 8 and Figure 20). From the diagram it can be seen that Sexual Responsibility increased at high levels of Parent-Adolescent Communication and Parenting Effectiveness.

For the Non-Virgin subsample there was a significant main effect on Sexual Responsibility for all levels of Parenting Effectiveness; however, an interaction effect occurred among the independent variables. The significant difference was probably due to this interaction effect (see Table 9 and Figure 21).

There was a significant main effect ($p < .05$) for the Non-Virgin subsample between all levels of Parent-Adolescent Communication; however, an interaction effect occurred among the independent variables. The difference shown was probably due to this interaction effect (see Table 9 and Figure 22).

For the Non-Virgin subsample there were significant simple main effects ($p < .05$) on Sexual Responsibility for the levels of Parenting Effectiveness (see Table 9 and Figure 23). This is illustrated by the diagram. At low levels of Parenting Effectiveness and high levels of Parent-Adolescent Communication, Sexual Responsibility decreased. At medium levels of Parenting Effectiveness and medium levels of Parent-Adolescent Communication, Sexual Responsibility increased. However, at high levels of Parenting Effectiveness and high levels of Parent-Adolescent Communication the scores on Sexual Responsibility decreased further. It should be noted that all observations were from small cell n 's.

For the Non-Virgin subsample there were significant simple main effects ($p < .05$) on Sexual Responsibility for the levels of Parent-Adolescent Communication (see Table 9 and Figure 24). This is illustrated in the diagram. Parent-Adolescent Communication at medium and high levels affects Sexual Responsibility at levels of Parenting Effectiveness. It should be noted that all observations were from small cell n 's.

Conclusions

MANOVA. There were a number of reasons that might explain why the results were not as expected or hypothesized. Characteristics of the sample may have contributed to problems in the results. The MANOVA assumptions were used to eliminate possible problems in the data set. Since most assumptions regarding normal distributions, skew and outliers were met, there was a high degree of confidence that the data were not problematic to the analysis. One assumption regarding the interrelation among the dependent variables was not met by the data. If they were correlated, shared qualities between the dependent variables would change correspondingly with a change in one or both of the independent variables.

The small size (52 subjects) of the sample may have contributed to problems of significance. There was an effect in the post hoc ANOVA analysis for the Virgin (30 subjects) and Non-Virgin (18 subjects) subsamples, Parent-Adolescent Communication on Moral Development ($p=.06$) might have been significant if the sample size had been larger.

When cell sizes are not equal it is difficult to compare cell results. In this study not all cells were of equal size. For example, one cell for the Non-Virgin subsample was empty due to an absence of subjects who possessed the characteristics desired for that cell.

In the MANOVA assumptions, the relationship among the dependent variables was not correlated. This indicated that these variables may not have been measuring the constructs intended for measurement. They may have measured another variable not as yet identified. One possible explanation is that because the questionnaire used for data collection was not specifically designed to measure Moral Development and Sexual Responsibility, some of the variables had to be constructed from available information. Inability to use data specifically designed for the purposes of this study contributed to the

degree of discrepancy in determining the dependent variables; therefore, the dependent variables may not have been valid indicators of the construct.

Experimenter bias may have been another possible explanation of the lack of confidence in the variables. Respondents answering the items on the questionnaire may have been interpreting the items differently than the experimenter did. Although focus groups were established to help eliminate some of the experimenter bias, the problem still persisted.

Since social desirability is a factor concerning validity. The subjects may have wanted to "look good" through their responses to the items. Respondents may have given invalid answers simply because they wanted their answers to appear socially desirable.

The research hypotheses did not hold up to the results obtained in the MANOVA. Violation of the assumption of linearity implicit in the hypotheses, may have contributed to the nonsignificant results obtained through the MANOVA. Further analysis showed effects of the independent variables on the dependent variables to be curvilinear rather than linear. In addition, few significant interaction effects of the independent variables were found, thereby refuting most of the hypotheses.

The univariate portion of the MANOVA indicated that some significant interactions between Parent-Adolescent Communication, Parenting Effectiveness, Moral Development, and Sexual Responsibility existed. Post hoc analyses were performed to determine exactly what effects were taking place between these variables.

ANOVA. Some issues that were found through interpretation of the ANOVAs were considered as possible reasons for discrepancies in the theory. Parent-Adolescent Communication negatively effects Moral Development. This was contrary to the hoped for results. Perhaps, at high levels of Parent-Adolescent Communication the adolescents were not given a chance to make mistakes and learn from them, but were heavily guarded through verbal monitoring of their behaviors. Considering the perception differences of

the adolescents and their parents, adolescents may have felt that their parents were more controlling than those parents saw themselves.

Another possible explanation was that moral development may not be what was measured. Sexual traditionality may have been the variable measured. Items such as "Parents would be upset with the way I am sexually" and "Pregnant females should stay in school and try to graduate" could be construed as measuring sexual traditionality or Conservatism rather than moral development. Although this may be the case, sexual traditionality and conservatism may be means of measuring moral development. In this study, some sexually traditional and conservative ideas were viewed as being unhealthy. To have feared what others thought about one's sexuality or letting others make sexual decisions for self were considered indicators of low moral development. To have cared about future consequences concerning one's sexual behavior was considered sexually responsible and related to moral development. Since sexual responsibility and moral development were not highly related, it would appear that one or both of the variables was measuring something other than that which it was intended to measure.

Moral Development showed a curvilinear effect for Parenting Effectiveness. It appeared that only high levels of Parenting Effectiveness significantly impacted the moral development of adolescents. Perhaps, greater efforts by parents and teens was necessary to relay information and positive feelings through effective parenting. Similarly to a chemical reaction, Parenting Effectiveness was needed in the proper quantity to have created a significant impact on Moral Development.

Sexual Responsibility increased significantly for the full sample between the low and medium, and the low and high levels of Parent-Adolescent Communication. As parents discussed more with their adolescents, they may have been monitoring their adolescents' sexual behavior. Thus, adolescents may have felt a necessity to be constantly on guard to be sexually responsible.

For the Non-Virgin subsample, a significant interaction between the two independent variables on Sexual Responsibility was found. Sexual Responsibility decreased between the medium and high levels of Parenting Effectiveness when Parent-Adolescent Communication was high. Adolescents may have felt encroached upon when parents tried to discuss all of the adolescents' sexual concerns. Adolescents' may have disregarded their parents' input long ago. Excessive verbal monitoring of the adolescent's thoughts and feelings may have produced the opposite effect desired.

Also, Parent-Adolescent Communication may have measured the degree parents and adolescents agreed on the type of communication they had. Therefore, negative communication could have had a high Parent-Adolescent Communication score if both parents and teens had agreed their level of communication was bad. If they had negative communication, Sexual Responsibility could have been negative due to teens acting out frustration through sexual misconduct.

Implications and Further Recommendations

Although some fruitful ideas may have come from this study, it must be remembered that the sample population was midwestern rural and generalizability to urban or other geographically located populations may not be possible. However, the study was replicable for other populations.

Survey research was imperfect in its attempts to control environmental effects. Subjects were asked to relate thoughts about sexuality, parent-adolescent communication, dating, and school in a one-time-administered questionnaire. Individuals may have been subject to pressures or experiences existing in the present that affected their answers concerning past relationships. Reliability may have been jeopardized for ease in administration of the instrument.

When constructing a theory through the use of constructs it was difficult to know if the construct were valid. For example, what might have meant sexual responsibility to

one person could have meant something entirely different to another. Although, it would have been comforting to have had complete confidence in the constructs used for the research, it was not possible.

The theoretical propositions were also considered of major importance. Although the theory may have been imperfect, the consistency of the theory lends credibility to the study. Without theory there can be no framework to support the conclusions derived from the results. All statistical observations would have lacked fruitful meaning, and the study would have been a report of numbers without the meaning that transformed them into ideas.

The research may have been restrained by the definitions given to the variables. As definitions were applied, the field of reference was narrowed. Within the defined parameters, a decrease in the type of experiences that may have taken place could have resulted. Abstract concepts, such as parent-adolescent communication, parenting effectiveness, moral development, and sexual responsibility, may have lacked operationalization. Presently, research has not adequately tapped the quantifiable behaviors that can be used to measure these concepts.

Adolescent respondents may have experienced "adolescent group think." They may have answered more alike than different on the questionnaire items, due to their age. The survey may have been examining group traits rather than individual traits; therefore, a longitudinal, cross-sectional study could have been more appropriate. A longitudinal study could have accounted for variability among age groups and the cross-sectional study could have accounted for variability due to extraneous variables among individuals by indicating those individuals who might have severely deviated from the group mean. An individual's moral development and sexual responsibility scores could be monitored over time to detect effects that might have been experienced through maturation. When compared to a longitudinal study, cross-sectional analysis could reveal effects

attributable to individual differences within the population, resulting in more confidence in the validity of the sample population's independent and dependent variable mean scores.

Although Parenting Effectiveness and Parent-Adolescent Communication showed curvilinear and negative linear effects on Moral Development and Sexual Responsibility for the sample population of adolescents and their parents, a positive linear relationship may have resulted if the population had been primary school children and their parents. Constant communication from parents to their adolescents may become burdensome to the adolescent who wants to exercise newly found cognitive functions (Piaget, 1948) and independence; whereas, young children and those in primary school may be more receptive to parental explorations of their behavior. At their level of cognitive ability, young children need more guidance to conduct and understand their behavior. Upon reaching adolescence, children may need the freedom to utilize the knowledge they had learned from parental guidance. With further research it may be found that Parenting Effectiveness and Parent-Adolescent Communication reach optimum levels of behavioral impact on children before pubescence.

For those individuals teaching or in the Human Development field, it should be observed that sexuality education and possibilities for a healthy sexual attitude may be have a more important role in primary school education than previously thought. By the time adolescents receive formal sexual information, many of them have already formed their attitudes and beliefs regarding sexual attitudes and behaviors. Comprehensive sexuality education with the use of moral dilemmas for grades K-12 would appear to be important to the development of sexual health.

Finally, all research has its limitations. Possible changes in the questionnaire, model, theory, and sample population could enhance the validity and reliability of further research conducted with the variables of Parenting Effectiveness, Parent-Adolescent Communication, Moral Development and Sexual Responsibility.

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ADOLESCENTS' MORAL DEVELOPMENT AND SEXUAL RESPONSIBILITY
AS AFFECTED BY PARENT-ADOLESCENT COMMUNICATION
AND PARENTING EFFECTIVENESS

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ABSTRACT

This study tested the interaction effects of Parenting Effectiveness and Parent-Adolescent Communication and the effects they produced on Moral Development and Sexual Responsibility. The data were obtained from a questionnaire given to 52 adolescents and both of their parents. Since it was hypothesized that the two dependent variables were correlated, a 2x2 MANOVA design was used. Separate MANOVAs were conducted for the full sample, a subsample of Virgins and a subsample of Non-Virgins. The MANOVA revealed negligible correlations between dependent variables and no significant interaction effects.

Both multivariate and univariate analyses showed some significant main effects of the independent variables. In order to further explore these effects, a 3x3 ANOVA was employed. The results of the ANOVA showed that both curvilinear and linear relationships existed between some variables. The relationships between, and effect on, the variables were described. Although the theory and hypotheses for this study were not supported, recommendations have been made for further study of Parenting Effectiveness, Parent-Adolescent Communication, Moral Development, and Sexual Responsibility.