EXAMINING THE RELATIONSHIP BETWEEN ADOLESCENT SEXUAL RISK-TAKING AND ADOLESCENTS’ PERCEPTIONS OF MONITORING, COMMUNICATION, AND PARENTING STYLES IN THE HOME

By

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This study extends the research of Rodgers (1999) on the relationship between parenting processes and adolescent sexual risk-taking. Parenting behaviors considered were parental monitoring, parent-adolescent communication, and parenting styles. Sexual risk-taking was determined by assessing number of lifetime sexual partners as well as use of condoms during last sexual intercourse. A sample (n = 286) of 9th-12th grade males and females who reported having had sexual intercourse were separated into two groups - those engaging in low sexual risk-taking or high sexual risk-taking behaviors.

Logistic regression analysis revealed gender differences in the relationship between parents’ behaviors and adolescent sexual risk-taking. For females, parental monitoring of the adolescent's after-school whereabouts was related to a decrease in the odds that a daughter would take sexual risks. For males, parental monitoring of whom the adolescent male goes out with was related to a decrease in the odds of a son taking sexual risks. Several significant interaction effects were also found.
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CHAPTER I

INTRODUCTION

Statement of the Problem

Adolescent sexual risk-taking, defined for this study’s purpose as a history of sexual intercourse involving either multiple partners and/or no contraceptive/condom use (Rodgers, 1999), contributes to the staggering number of sexually transmitted diseases and unwanted pregnancies in the United States each year (Rosenthal & Feldman, 1999). Sexual risk for adolescents has changed dramatically in the past 15 years (Hutchison & Cooney, 1998; Rosenthal & Feldman, 1999). It has been estimated that over 12 million teenagers in the United States--seven million young men and five million young women--are sexually active (Aved & Lobdell, 1984). Among sexually active teenagers, about 1 in 4 acquire a sexually transmitted disease every year (SIECUS, 2000). Additionally, eighty-five percent of teenage pregnancies are unintended, accounting for twenty-five percent of all unintentional pregnancies annually (SIECUS, 2000). Tremendous health and economic burdens are related to the frequent outcomes associated with adolescent sexual risk-taking; as such it seems imperative to evaluate the risk and protective factors contributing to the context of adolescent sexual risk-taking in the United States.

This study's purpose is to explore the relationship between parental monitoring, parent-adolescent communication, and parenting styles and adolescent sexual risk-taking. The context of the adolescent’s family is considered as the primary social influence, thus carrying substantial weight for the introduction of risk and/or protective factors into the adolescent’s life. Although adolescence is a time of expanding one's primary social network with peers playing a vital role in the adolescent's life; family relationships,
remain essential factors influencing adolescent functioning and decision-making (Noller, 1995).

**Adolescent Sexual Risk-Taking**

As noted by Rodgers (1999), "the consequences of high sexual risk-taking behavior can be negative and lifelong" (p. 99). Evaluating sexual risk-taking in adolescents as the *problem* (rather than sexual initiation as the problem) is a relatively new research orientation (Rodgers, 1999). As Rodgers states (1999):

Given these trends [the likelihood that teens will engage in sexual intercourse before finishing high school, the fact that pregnancy rates among teens continue to rise, and the high levels of unprotected sexual activity resulting in increasing numbers of sexually transmitted diseases in adolescents], it is time for researchers to reconsider the “problem” of adolescent sexual behavior. Rather than continue to examine factors associated with sexual initiation, perhaps the more urgent question is: What factors will help sexually active adolescents make responsible sexual choices? (p. 100).

In addition to Rodgers' (1999) work, this study is also influenced by research efforts of Catherine Chilman (1990). Chilman encourages researchers to look for and promote healthy adolescent sexuality as a “normal, positive, central part of growth toward maturity” (p.123) rather than as an inherently problematic stage of development. In opposition to the popular message “that adolescence is inevitably fraught with problems and that adolescent sexuality is particularly dangerous and disturbing” (p. 123), Chilman sought to contextualize and define exceptions to this broad ranging statement. This researcher, like Chilman, does not encourage a concept of sexual freedom and recklessness, but challenges the notion that abstinence is the only healthy choice for adolescents. While intercourse resulting in unplanned, unwanted pregnancy or a sexually
transmitted disease is a problem, adolescent intercourse in and of itself may not be problematic. Whether or not adolescent intercourse is problematic depends on a number of factors, one of which is the mature, responsible effort to reduce risk. Irresponsible, unprotected sexual intercourse has contributed to significant health problems for adolescents.

Sexually Transmitted Diseases

Approximately three million teenagers contract a sexually transmitted disease (STD) each year (SIECUS, 2000). Some of the most common STDs among adolescents are chlamydia, gonorrhea, herpes, and the human papilloma virus, all of which pose a serious threat to young people because of the link between these diseases and the rates of cancer and infertility (SIECUS, 2000). Additionally, the risk factors associated with HIV (i.e., drug use, unprotected sex, and multiple sexual partners) are more common among young people than adults which means that the risk of HIV infection among adolescents is substantial.

Teen Pregnancy

Every day 1,115 teenagers have abortions; 1,340 teenagers have babies; 2,781 teenagers get pregnant; and 8,400 teenagers become sexually active (Children’s Defense Fund, 1994 as cited in Warren, 1995). As Warren (1995) states, “Statistical measures such as these yield a picture of a U.S. teen pregnancy problem that some researchers have described as epidemic in proportion” (p. 175). Risks and outcomes of teenage pregnancy are numerous. While there are success stories and exceptions for young mothers and
fathers, teenage mothers are only half as likely to complete high school as their non-
mother cohort, increasing numbers of teens must receive welfare to cover the cost of
delivery, and poverty and low achievement (also a cause of teenage pregnancy) often
linger as a consequence of early childbearing (Warren, 1995). Groups such as the
Children’s Defense Fund assert that teenage pregnancy and poverty are “inextricably
linked” (Warren, 1995, p. 177).

**Theoretical Framework**

**Family Systems Theory**

The proposed study is guided by the framework of family systems theory “which
focuses on interactional processes of family life rather than viewing adolescents or
parents in isolation” (Spring, 1999). Family systems theory has its roots in sociology,
biology, and cybernetics. Scientists such as Ludwig von Bertalanffy and Gregory
Bateson paved the way for the central understanding that “a system is more than the sum
of its parts” (Nichols & Schwartz, 1998, p.113 ). This systems theory foundation, applied
to family process, helps clinicians and scientists alike understand that a family system
should be seen as more than just a collection of people, but also as individual members
who influence one another in a variety of ways. The application of systems theory to the
family has led to the conclusion that “the family is an example of an open, ongoing, goal-
seeking, self-regulating, social system, and that it shares the features of all such systems”
(Broderick, 1993, p. 37); and yet the family system is also set apart from other social
systems by its unique nature and characteristics.
To describe a family system as “open” (Broderick, 1993, p. 37) implies that information flows back and forth among the boundaries of the family system, its individual parts, and the outside larger systems. A family system develops its own unique set of rules which govern its interactive processes, degrees of openness, and structure pertaining to the information flow within and beyond the system (Broderick, 1993). In systems terminology, adolescence induces a process of change in family rules and roles marked by a shift toward openness to systems outside the family such as peer groups, school, and work (Spring, 1999).

Communication is a central component of the family system’s capability to change. For the purpose of the proposed study, family systems theory will guide the researcher to examine the influence of behaviors of subsystems (i.e., the parents, their communication, monitoring, and parenting styles) on the behaviors of other separate, but conjoint parts (the adolescent’s sexual risk-taking behaviors) of the system.

**Rationale**

In the past several decades, many United States prevention programs have targeted adolescents with hopes to spread a message of sexual abstinence (e.g., Campaign for our Children, Not me Not Now, Friends First, It’s Great to Wait, Pure Love Alliance, Sex Respect, Choosing the Best, No Sex Until Marriage). Recently, however, other prevention programs have turned toward encouraging responsible contraception. Research efforts have shown an increasing risk of life-threatening STDs and data which suggests that abstinence is not the typical adolescent experience (Chilman, 1990; Rodgers, 1999). Although there has been a significant amount of research on parent-
adolescent communication and its relationship to adolescent sexuality, the majority of the literature, similar to the prevention programs on abstinence, seems to focus on initiation of sexual activity rather than on sexual risk-taking behaviors (Chilman, 1990; Jaccard, Dittus, & Gordon, 2000; Lammers, Ireland, Resnick, & Blum, 2000; Luster & Small, 1994; Metzler, Noell, Biglan, Ary, & Smolkowski, 1994; Rodgers, 1999; Small & Kerns, 1993; Small & Luster, 1994; Smith, 1997).

**Addressing Gaps in the Literature**

The purpose of this study is to widen the focus beyond examining risk markers of adolescents for initiating sexual intercourse to examining the factors that relate to the numbers of adolescents who are engaging in risky sexual behaviors. Additionally, the scope of examining the influence of the family will be stretched beyond a one-scale communication variable to the use of a three-fold assessment of interaction between parent(s) and adolescents, namely perceptions of parental monitoring, parent-adolescent communication, and parenting styles.

The above-mentioned research collective is focused on initiation of sexual activity (rather than sexual risk-taking), and also tends to include: 1) an overemphasis on mothers and daughters; 2) small sample sizes; 3) college-aged samples generalized as adolescents; 4) a lack of ethnic diversity; 5) reliance on self-report measures; and 6) urban study settings. This study addresses several of these limitations by utilizing an adequate sample size (N=286) of adolescent 9th-12th grade girls and boys who live in a rural area of Virginia. The sample is also ethnically varied with respondents reporting their ethnicity as fifty-four percent White or Caucasian; thirty-six percent African-American or Black; three percent Native American; nearly three percent bi-racial; about two percent other; one percent Asian; and nearly one percent Hispanic.

Rurality

The majority of research on parent-adolescent communication is based on data acquired from urban samples. As a result, the research lacks representation of 20 percent of the United States population (Agriculture, 1995) who are living in rural America. Indeed, two thirds of all American schools are considered to be rural (Doebler, 1998).

Rural areas are distinctive and unique in their economic, social, and cultural characteristics. For example, and of importance to this study, rural living is often quite isolating (Doebler, 1998). Teens in rural America are not only challenged to be socially connected to others, but are also isolated from economic centers of activity and recreational facilities. Although non-urban living teens may be physically isolated from a network of casual acquaintances, teens living in rural areas are often uniquely surrounded by larger numbers of extended family members.
Additionally, in rural America parents are often required to work greater distances away from the home, creating constraints on their ability to monitor their teenager’s activities (Doebler, 1998). However, considering the increased likelihood that other family members may participate in the teen's life, it may be that adults other than parents contribute to monitoring teenagers activities. In summary, adolescents growing up in these areas may have a different experience of parental monitoring as well as different choices of leisure and after-school activities than their counterparts who live in urban or metropolitan areas.

**Considering the Gender of the Adolescent**

Research on parent-adolescent communication indicates a clear difference between the communication habits of adolescent daughters and sons. Parent-daughter communication about sex is more common than parent-son discussions (Nolin & Petersen, 1992; Papini, Farmer, Clark, Micka, & Barnett, 1990). Adolescent sons tend to be monitored less than daughters, have less communication within the family, less opportunity to discuss sexuality with their same sex parent, and fewer discussions of topics likely to teach family values about sexual behavior (Nolin & Petersen, 1992).

The research on parental monitoring of adolescents also points to gender differences, with adolescent females being monitored more than adolescent males. Several studies have also suggested that parental monitoring could have a stronger association with behavioral adjustment for girls than for boys (Jacobson & Crockett, 2000).
Related to parenting style, a high degree of psychological control with authoritarian parenting has been shown to increase odds of a female adolescent engaging in high sexual risk-taking behaviors (Meschke, Bartholomae, & Zentall, 2000; Rodgers, 1999). Rodgers’ (1999) results indicated no significant relationship between perceived parenting style and adolescent males’ sexual risk-taking behaviors.

With this in mind, it is important to take the adolescent’s gender into account during analysis. As such, this study will consider the adolescent’s gender as a variable of interest.
Research Questions

This study intends to answer the following research questions:

1) What is the relationship between adolescent sexual risk-taking and the adolescent's perception of several parenting processes including level of parental monitoring, frequency of parent-adolescent communication, and type of parenting style? 2) What influence, if any, does the gender of the adolescent have on the relationship?
CHAPTER II

LITERATURE REVIEW

Context of Adolescence

Adolescence is a transitional period of growth and change including the development of mature forms of thought, emotion, and behavior (Montemayor, 1983). The transition from childhood to adolescence is also fraught with biological, psychological, and social changes that can be quite disruptive. Additionally, adolescents are thought to lack mature skills to cope with these changes and, therefore, they may experience a high degree of what has been referred to as “transitional stress” (Montemayor, 1983). Transitional stress is likely to have an impact on family relationships, but for the most part the stage of adolescence is not likely to cause the development of serious family problems (Walsh & Scheinkman, 1993). All adolescents experience the biological, cognitive, and social transitions of the stage, but the effects of these stages are by no means universal (Walsh & Scheinkman, 1993). Context, particularly the relational context of the family, is quite important in determining the experience of the adolescent during this transitional stage.

Parents as Sex Educators

Many studies have examined whether or not parents are effective sex educators for their differentiating and often rebellious adolescents. Russo (1992) emphasized that parents’ level of comfort in discussing sexuality was central to effective communication with adolescents. Baldwin and Baranoski (1990) found that adolescents who report more sex education in the home also report better communication with their mothers and are
also more likely to be satisfied with family interactions. Feldman and Rosenthal (2000), in a study about sex education, emphasize the importance of gender. Their findings (Feldman & Rosenthal, 2000) emphasize that teens often evaluate mothers more positively [as sex educators] than fathers, daughters often evaluate mothers more positively than sons, and parents often evaluate themselves more positively than their teenagers. Despite the increasing bulk of literature encouraging sex education in the home, The National Campaign to Prevent Teen Pregnancy (2000) reports that more than one-third of teens stated that they had not had even a single helpful conversation with their parents about sex.

Defining Adolescent Sexual Risk-Taking

“Risk refers to a chance of loss; and engaging in risky behaviors is defined as risk-taking” (Beyth-Marom & Fischhoff, 1997). Particular to adolescent sexual risk-taking, Brooks-Gunn & Paikoff (1997) state, “Almost nothing is known about how teenagers make choices to engage in or not to engage in sexual experiences, or how the choice to use contraceptives is made” (p. 195). Often researchers assert that, for adolescents, engaging in sexual intercourse is sexual risk-taking. For instance, Blum et al. (2000) considered any history of sexual intercourse as a category of risk.

Beyond Abstinence

Taking recent trends and responsible behaviors into account, this study conceptualizes sexual risk-taking as behavior beyond normal, healthy adolescent sexual development (Chilman, 1990). In other words, this study conceptualizes abstinence as
one healthy risk-free choice, but also looks beyond abstinence in order to acknowledge other choices that can also diminish potential health risks.

This study conceptualizes risk as “conditions or variables associated with a lower likelihood of a socially desirable outcome and a higher likelihood of negative or socially undesirable outcomes” (Jessor, 1998, p. 195). The risk is defined as a history of sexual intercourse involving either multiple partners and/or no condom use (Rodgers, 1999). Several other studies have pointed out the importance of understanding how sexual risk-taking is constructed as a variable (Chilman, 1990; Kotchick, Dorsey, Miller, & Forehand, 1999; Luster & Small, 1994; Metzler et al., 1994; Rodgers, 1999; Savage & Holcomb, 1999; Small & Luster, 1994). For instance, Luster and Small (1994) justified the use of a wider lens when defining sexual risk-taking:

What characteristics of teens and their families distinguish sexual risk takers (i.e., those who have multiple partners and do not use contraception consistently) from teens who engage in more responsible sexual behavior? Past research on adolescent sexual behavior has tended to focus on whether or not adolescents are sexually active. Given that having intercourse before one reaches 20 years of age is now a normative event, it seems equally important for researchers to explore the differences between adolescents who engage in sexual behaviors responsibly and their peers who behave less responsibly (p. 624).

The literature collective that explores the relationship between parenting variables and contraceptive use and/or number of partners is quite limited. However, these studies provide the researcher with preliminary, supportive information encouraging further investigation of these relationships. As such, this study will examine several parenting process variables and their relationship to adolescent sexual risk-taking.
Parental Monitoring

Parental monitoring is generally defined as “the parents’ knowledge of their child’s whereabouts, activities, and friends” (Jacobson & Crockett, 2000, p. 66). Research has shown a relationship between levels of parental monitoring and adolescents’ involvement in various risk-taking behaviors (Baker et al., 1999; Flannery, Williams, & Vazsonyi, 1999; Kim, Hetherington, & Reiss, 1999; Rodgers, 1999; Spencer, Dupree, Swanson, & Cunningham, 1996). Specific to sexual risk-taking, as aforementioned, Rodgers (1999) found that high levels of parental monitoring were associated with lower sexual risk-taking behaviors, as did Luster and Small (1994) and Jacobson and Crockett (2000). Of interest, Rodgers hypothesized an interaction effect between the closeness of the parent-adolescent relationship and the effectiveness of parental monitoring. Her results showed that the closeness of the relationship did not enhance the effect of monitoring such that parental monitoring “can be a protective process independent of parental support” (p. 106). Rodgers concluded: "Teaching parents about the importance of parental monitoring and how they can monitor without being intrusive is one way to ensure low-risk sexual behavior among sexually active teens" (p. 107).

In 1994, a study researched the social context of risky sexual behavior among adolescents (Metzler et al., 1994). In addition to findings related to negative peer influence, the investigators also found that poor parental monitoring was related to risky sexual behavior (Metzler et al., 1994). In addition, researchers identified that "failures in parental monitoring were related to an indirect influence permitting the adolescent to associate with deviant peers" (p. 432). Another influential variable contributing to
parental monitoring levels was identified as parent availability. Family structure, the number of parent figures, and the number of parents who are at home during significant hours all contribute to parental monitoring levels which influence risky sexual behavior of adolescents.

In a trial study focused on developing and evaluating an intervention to increase monitoring by parents and guardians of African-American youth, researchers emphasized that parental monitoring can function both as a preventive measure and as an intervention measure for youth already involved in risky behaviors (Stanton et al., 2000). The findings of this study indicated a vast amount of parental underestimating of adolescent risk behavior indicative of a greater need for parents to learn interventions for increasing monitoring of their adolescents (Stanton et al., 2000). In a longitudinal study conducted with some of the same data, researchers found evidence for an inverse relationship between perceived parental monitoring and unprotected sex (Li, Stanton, & Feigelman, 2000b). Long-term effects of perceived parental monitoring provided sustained protection from adolescent risk behavior (Li, Fiegelman, & Stanton, 2000a; Li et al., 2000b).

In a recent publication, (Stattin & Kerr, 2000) Swedish researchers investigated and created a new prescription for parental monitoring. These researchers defined parental monitoring as "a set of correlated parental behaviors involving attention to and tracking of the child's whereabouts" (p. 1072). In their study of 703 adolescents and their parents, the investigators concluded that parental knowledge of whereabouts came from adolescent disclosure. In other words, while the parents may have tracked and obtained surveillance of their teen's activities, they could not have done so without the free
disclosure of information from their children. Stattin and Kerr (2000) urge researchers to reconsider monitoring by taking into account the role that adolescents contribute to what has previously been understood as a parental action rather than as a collaborative process.

In a study focused on female adolescents and birth control, researchers found that direct parental monitoring of adolescent females was associated with more reports of hormonal methods of contraception (the pill) as well as double contraception (the pill & condoms) (Baker et al., 1999).

Effective parental monitoring of teens requires a delicate balance. In other words, too many rules and too much supervision have been related to a greater likelihood of adolescent sexual risk-taking while a permissive lack of supervision appears to also contribute to adolescent sexual risk-taking (Meschke et al., 2000). Studies have not been able to determine process and time related effects; as a result, researchers question if, for instance, high levels of parental monitoring that negatively influence adolescent sexual risk-taking are in fact a reaction to previous unwanted adolescent behaviors (Meschke et al., 2000). In other words, it may be that adolescents engage in risk-taking behaviors as a reaction to their parents’ increased levels of monitoring initiated after a perceived negative event had already occurred.

It is important to note that "although only a few studies have compared the impact of monitoring and supervision for boys versus girls, several that have done so suggest that parental monitoring could have a stronger association with behavioral adjustment for girls than for boys" (Jacobson & Crockett, 2000, p. 68).

In summary, balanced levels of parental monitoring of adolescents has been shown to reduce risk-taking behaviors, particularly for girls.
Parent-Adolescent Communication

Studies examining the relationship between parent-adolescent communication and adolescent sexual risk-taking report inconclusive results (Fisher, 1989; Newcomer & Udry, 1985; Rodgers, 1999). Hutchison and Cooney (1998) state that “despite serious shortcomings in methodology and sampling, the literature supported the following conclusions: 1) parents were relatively uninvolved in the direct sex education of their children, 2) when a parent was involved, it was usually the mother, 3) when it did occur, the impact of parental sex instruction in the home was marked by later age of onset of sexual activity and more effective use of contraception” (p. 185).

Whitaker and Miller (2000) concluded that some studies have found that parental communication is associated with less risky sexual behavior; but others have found it is not. “One reason for the lack of clear findings about parental communication is that, in many studies, parental communication has been conceptualized relatively simply: either parents have talked to their teens about sex or they have not” (Whitaker & Miller, 2000, p. 253). Additionally, Whitaker and Miller (2000) found that general measures of sexual communication (used primarily in the literature) ignore the absence or presence of specific topics as well as aspects of the communication process, including the timing of the communication, the breadth of the communication, parental responsiveness during the discussion, and whether permissive or conservative messages are conveyed. Finally, another possible reason for the unclear relationship between parental communication and adolescent sexual risk-taking is that peer norms may be a mediator serving to either diminish or enhance the parents' influence (Whitaker & Miller, 2000).
In another review of the literature, Jaccard and Dittus (1993) stated: “Many studies in the literature report no relationship between parent-teen communication and sexual and contraceptive behavior….other studies report associations for one gender but not the other” (p. 335). These researchers concluded that the overall picture from the studies reviewed is somewhat pessimistic regarding parent-teen communication as a means of preventing unintended premarital pregnancy; because in “some studies, the relationship between parent-teen communication and sexual behavior was positive, whereas other studies only found a negative relationship…in all cases the magnitude of the effects was relatively weak” (Jaccard & Dittus, 1993, p. 335).

Despite the inconclusive results of the literature when reviewed as a whole, a few particular studies that used similar methods, instruments, and definitions provide important rationale for the proposed study’s hypotheses. For example, Rodgers (1999) conducted a study to assess parenting behaviors and their relationship to adolescent sexual risk-taking. Rodgers (1999) hypothesized that sexually active teens who talk with their parents about sexually-related issues would be less likely to demonstrate sexual risk-taking behavior compared to teens who do not communicate with their parents about such issues. The study sample was drawn from 2,257 (6th-12th) junior and high school students who were surveyed for part of a larger study. The sample included the 9th-12th graders who reported voluntarily that they had had sexual intercourse and that they resided with two parents (either biological, adoptive, or in a blended family). Finding indicated that high levels of parental monitoring (more so than high levels of communication) were associated with lower sexual risk-taking.
Another study (Kotchick et al., 1999) emphasized the personal and environmental factors that influence sexual risk-taking. Kotchick et. al. (1999) examined the sexual risk-taking behavior of adolescents in single-parent families. Higher levels of maternal sexual risk-taking were associated with reports of higher levels of adolescent sexual risk-taking behaviors. Findings also provided support for the role of high levels of parental communication about sex in reducing reported levels of adolescent sexual risk-taking.

In a study with a design similar to this investigation, Luster and Small (1994) found a relationship between mother-daughter discussion about contraception and the likelihood that a sexually active adolescent female would have one partner with whom she would consistently use contraception. Family variables indicated that high-risk females were monitored much less closely by parents, and received lower levels of support from their parents. Additionally, high-risk females were less likely to talk to their mothers about birth control. High-risk males were also less closely monitored by their parents and received less support from their parents. There were no differences in communication about birth control between low-risk and high-risk males.

In another study (Whitaker & Miller, 2000), researchers examined how parent-adolescent communication about initiating sex and condom use influenced the relationship between peer norms and sexual behavior. Peer norms were measured as teens' perceptions of peers' sexual behavior. Using an ethnically and geographically diverse sample who were chosen based on data indicating high risk for HIV, the researchers found for both sex and condom use, that the peer-norm behavior relationship was moderated by parental communication. In other words, "peer norms were more
strongly related to behavior among adolescents who had not discussed sex or condoms with a parent” (Whitaker & Miller, 2000, p. 251).

The timing of discussions between adolescent and parent are also of importance (i.e., prior to sexual initiation, during the year of sexual initiation, after the year of sexual initiation, or never) (Miller, Levin, Whitaker, & Xu, 1998b). In a cross-sectional study of sexually active adolescents conducted in New York, Alabama, and Puerto Rico with 14 to 17 year-old adolescents and their mothers, researchers found that 70% of adolescents reported having discussed condoms with their mother (Miller et al., 1998b). Male adolescents discussed condoms with their mother at a younger age (mean = 12.9 years) than female adolescents (mean = 13.5 years) (Miller et al., 1998b). Maternal discussions about condoms that occurred prior to sexual debut were associated with greater condom use. Condom use at first intercourse was associated with a dramatic increase in later condom use. Data suggest that maternal discussions prior to first intercourse would promote condom use during first intercourse, which subsequently promotes subsequent condom use (Miller et al., 1998b).

In an article focused on contraception and pregnancy, Pick and Palos (1995) reviewed two studies that both suggest that sexually active youth who use contraceptives have significantly better communication with their parents than do those who are sexually active but do not use contraceptives. This review of studies seeks to emphasize the family’s influence on sexuality of adolescents, and to identify the importance of future study on the interaction of culture and parent-adolescent communication about sexuality.

Fisher (1989) investigated differences in sexual knowledge, sexual attitudes, and contraceptive choice between young adolescents whose parents frequently discuss sexual
topics with them and those whose parents rarely discuss sex with their adolescents. A convenience sample of 22 families with 12-14 year olds participated in the study. Fisher (1989) found that sexual knowledge scores for parents who often discussed sex with their children were higher than the scores for parents who did not. In other words, parents who know more about sex are more likely to discuss sex with their children. Additionally, and of significance, the study results indicated no differences in the contraceptive choices between the adolescents in the high-communication and low-communication groups. Fisher's findings indicate a need to examine the content of the communication occurring in the high communication groups, and to include other interaction variables such as parental monitoring into the equation.

To summarize, parent-adolescent communication, conceptualized as a research variable, has been associated with mixed results. Several research issues about the conceptualization of parent-adolescent communication shed light on the inconclusive results.

**Importance of Perception**

Regardless of how much communication about sexuality and sexual risk-taking has taken place between adolescent and parent, Fisher (1989) found that the influential factor is how much communication the adolescent perceives to have taken place. Newcomer and Udry (1985) also reiterate the importance of perception throughout their study. It seems that parents and adolescents often have disparate reports of what has been communicated between them. The influential component for influencing adolescents
behavior is what the adolescent *thinks* their parents believe and say about sex and how often the adolescent perceives these conversations to have taken place.

Many monitoring studies also rely on information supplied by the adolescents regarding their perceived levels of monitoring by their parents. It seems that the influence of parenting style on adolescent behavior modification would also depend on whether or not the adolescent perceives their parents to be permissive, negligent, or attentive. As such, many studies rely on self-report of adolescents regarding parenting processes (Jacobson & Crockett, 2000; Li et al., 2000a; Li et al., 2000b; Meschke et al., 2000; Metzler et al., 1994; Rodgers, 1999).

**Research Issues**

Regarding research methodology, Jaccard, Dittus, and Gordon (1998) state that “most research on parent-teen communication about sex and birth control has used a simplified view of the communication process in which teens are asked whether they have communicated with their parents about a topic and how useful they found the conversations to be” (p. 247). Their study results (Jaccard et al., 1998) suggest that five communication dimensions may be more helpful, including: 1) the *extent* of communication, frequency and depth; 2) the *style* or manner in which information is communicated; 3) the *content* of the information that is communicated; 4) the *timing* of the communication; and 5) the *general family environment* (e.g. the overall quality of the relationship between parent and teen)” (p. 247).

Two other methodological concerns were raised by Raffaeilli, Smart, Van Horn, Hohbein, Kline, and Chan (1999) including the “tendency for researchers to assess for
communication across the teen’s entire life span which raises the problem of memory
distortions and the use of forced choice categories with the words “ever” and “never”
which may result in inaccurate data” (p. 396).

**Parenting Styles**

Parenting styles are important to consider when examining parent-adolescent
relationships. Researchers have found that both authoritarian and permissive/neglectful
styles of parenting have negative effects on family relations (Maccoby & Martin, 1983;
Noller & Bagi, 1985). On the other hand, authoritative parenting styles with flexibility
and encouragement of adolescent self-expression are likely to create a collaborative
environment that fosters productive communication between parents and their
adolescents (Noller & Bagi, 1985). Authoritative parenting requires adolescents to be
responsive to parental rules and requests while also assuming the parental responsibility
of responsiveness to adolescents needs and points of view (Maccoby & Martin, 1983).

Noller (1995) states,"Families that provide close, supportive environments for
adolescents, while at the same time encouraging independence seem to produce
adolescents who can cope with the transition to adulthood" (p. 77).

Rodgers also (1999) noted: "…children whose parents encourage autonomous
thinking and self-discovery are more likely to develop psychological and social
competence" (p. 101). On the other hand, excessive control and lack of autonomy "may
stifle the processes of social and psychological maturation that are necessary for
adolescents to make responsible choices about their behaviors" (p. 101). Rodgers argued:

Teens who are allowed psychological autonomy develop psychological maturity
and moral internalization necessary to make mature sexual decisions and to
demonstrate low-risk sexual behavior...this argument suggests that parents' psychological control may be a factor equal to, if not stronger than, behavioral control in predicting sexual risk-taking behavior among adolescents (p. 102).

Boys are particularly in need of the authoritative parenting balance between nurturing and freedom; and research indicates that controlling/authoritarian parenting styles are likely to have a particularly negative effect on adolescent males (Noller, 1995).

Similar to parental monitoring, the influence of parenting style also depends on a delicate balance that allows the adolescent to experience supported independence without a sense of permissive nonchalance or authoritarian control.

**Gender as a Moderating Variable**

Research suggests that there are clear differences between adolescent males and females in the nature of their communication with parents (i.e., daughters communicate more with parents than sons (Papini et al., 1990), and both male and female adolescents talk more with their mothers across a wider range of topics (i.e., sexuality) than they do with their fathers) (Noller & Bagi, 1985; Norrell, 1984).

For instance, in a mixed methods study conducted by Nolin and Petersen (1992), results indicate that sons "had less communication within the family, less opportunity to discuss sexuality with the same sex parent, and less discussion of topics likely to teach family values and norms about sexual behavior" (p. 76). However, the nature of the gender differences for adolescents may be explained by the role of parents. As Nolin and Petersen note: "The discrepancy between sons and daughters as recipients of family communication about sex was the result of the larger role taken by mothers in sexuality education" (p. 76). Findings in Nolin and Petersen's study indicate that mothers are
identified as the appropriate parent to discuss sexuality, that fathers are less available for discussions, and that fathers report more discomfort talking with their children about sexuality. All of these factors influence the sexual socialization of adolescent females and adolescent males in ways that suggest future study.

Additionally, the impact of monitoring and supervision has been shown to be strongly moderated by gender of the adolescent (Jacobson & Crockett, 2000). Stattin and Kerr (2000) note that girls freely disclose more than boys and that parents solicit more information from girls than boys according to the adolescents. Stattin and Kerr (2000) emphasize a reinterpretation of monitoring as heavily influenced by adolescents' spontaneous and willing divulgence of information. If indeed girls are more likely to share information, which decreases the need for parents to solicit them for reports, monitoring variables would certainly be perceived differently by male and female adolescents.

Rates of monitoring also vary by gender with adolescent females generally reporting higher levels of parental monitoring than their adolescent male counterparts (Li et al., 2000a).

As noted earlier, parenting styles also vary in effectiveness by gender. This research study addresses findings related to gender differences by analyzing male and female data separately.
CHAPTER III

METHODS

Design of the Study

This study analyzed quantitative data previously collected through the Virginia Adolescent Resiliency Assessment (VARA). Secondary data analysis is useful for the purposes of this investigation. As Colby (1982) notes, “secondary data analysis allows one to examine evidence based on data collected using several designs, cohorts, or types of samples” (p.122). This study benefited from the use of secondary data analysis by combining the data from two identical surveys conducted in separate, yet similar, rural counties in Virginia. This allowed the researcher to increase the sample size.

Secondary data analysis also has limitations. For example, the VARA survey was created prior to this study's conception. The survey is a 169-item instrument designed to offer a wide angle view into adolescents values, beliefs, thoughts, and behaviors rather than a focused view into one particular area. As a result, the few questions relating to parenting processes and sexuality had already been determined and could not be expanded or made more concrete.

Study Participants and Procedures

Study participants were comprised of 9th-12th grade students from two high schools, both of which are located in rural, ethnically diverse Virginia counties. The two high schools had been previously selected as part of the larger, VARA study. Whole school census procedures were used; thus all students in the two schools were invited to participate. Parents were notified of the study and its purpose through a passive consent
form that was sent home with all enrolled students. Parents who did not want their
children to participate were asked to contact the school to withdraw their consent.
Students could also make their own decision to withdraw. On the day of the survey’s
administration, one classroom period was devoted to the completion of the paper and
pencil questionnaire. Either a teacher or a community member proctored each classroom
by reading the instructions to the students, answering students’ questions if necessary,
and collecting the surveys in an envelope. The VARA surveys were anonymously
completed and collected; and the surveys were voluntarily completed by the students who
had freedom to withdraw from the study at any point. Those students who withdrew
from the study were allowed to have study hall in the school library at this time.

High school #1 had an attendance of 447 students the day of the survey's
administration. Four students chose not to participate. Three hundred sixty-two (362)
students in high school #1 returned surveys. Of the completed surveys, three hundred
and nineteen (319) surveys were considered valid and included in the data set. High
school #1 had a seventy-one percent response rate based on those present the day of the
survey's administration.

High school #2 had 257 students in attendance on the day of the survey's
administration. Of those present that day, two students declined to participate. Two
hundred and thirty-five (235) surveys were considered valid and included in the data set.
Forty-seven 8th graders from high school #2 were subtracted from the data set in order to
limit the sample to 9th-12th graders. High school #2 had a ninety-one percent response
rate based on those present the day of the survey's administration.
Demographics of the sample

The sample initially consisted of 507 participants. Fifty-two percent of the combined sample was female and 48% were male. The sample is not evenly distributed by grade: 30% were ninth graders, 28% tenth graders, 24% eleventh graders, and 18% twelfth graders. The 508 sample participants reported their ethnicity as 54% White or Caucasian; 36% African-American or Black; 3% Native American; about 3% bi-racial; nearly 3% other; 1% Asian; and nearly 1% Hispanic.

The majority of the sample (52%) reported living with both a mother and a father (biological or adoptive). Seventeen percent reported living in a blended family and 16% with their mother only. The other fifteen percent of students reported living with a father only, living half with mother and half with father, living with a parent and a non-relative, living in a foster home, living with relatives, and/or living alone or with friends. The majority of the sample (59%) also reported living in a non-divorced household.

According to the respondents, 66% of participant’s mothers and 75% of fathers work full-time.

Data Collection Instruments

The measures for this study were derived from the Virginia Adolescent Resiliency Assessment, a 169-item survey which was based on both a survey conducted by Stephen Small from the University of Wisconsin-Madison/Extension (Small & Kerns, 1993) and the 1998 Youth Risk Behavior Survey (Center for Adolescent and School Health, 1999), a nationally recognized survey designed to assess the risk behaviors of young people. VARA, in addition to collecting participant demographics, also consists of self-report
measures covering topics including: how teens spend their time; health care issues; personal safety and violence; mental health; alcohol, tobacco, and drug use; diet and exercise; perceptions of the community, school, and friends; parent-teen relations; and sexuality.

Parent-Adolescent Communication

Eight survey items (on eight topics) assessed the degree of parent-adolescent communication perceived by the teen (Small, 1991). The teens were asked how often in the past year they communicated with their parents (or the adults they live with) about each of the following topics: 1) drugs and alcohol; 2) sex and/or birth control; 3) job or education plans after high school; 4) personal problems/concerns; 5) teachers or classes in school; 6) dating; 7) things they enjoy; and 8) friends. Five possible responses included “never”, “rarely”, “sometimes”, “often”, “very often”, or “no adult at home”. Each question's score ranged from 0 to 4 with "never" and "no adult at home" both scored as 0. Cronbach's alpha for the 8 items was .85 (See Appendix A).

Parental Monitoring

Students completed a six-item Parental Monitoring Scale (Small & Kerns, 1993). The teens were asked how much the six items were true for them: 1) “my parent(s) know where I am after school”; 2) “If I am going to be home late, I am expected to call my parent(s) to let them know”; 3) “I tell my parent(s) whom I’m going to be with before I go out”; 4) “When I go out at night, my parent(s) know where I am”; 5) “My parent(s) know who my friends are”; and 6) “My parent(s) know the parents of my friends.”
Students chose from out of five possible responses: “never”, “rarely”, “sometimes”, “often”, “very often”, or “no adult at home”. Each question's score ranged from 0 to 4 with "never" and "no adult at home" both scored as 0. Cronbach's alpha for the six-item scale was .84.

The scale has been shown to have construct validity as evidenced by Dix's (2001) review of the scale: "The Parental Monitoring Scale has been used in at least three studies involving nearly 6,000 adolescents…higher levels of parental monitoring have been related to lower levels of adolescent risk-taking including sexual activity, delinquency, and drug use" (p. 233) (See Appendix B).

Parenting Styles

One survey item assessed for the teen’s perception of parenting styles by asking about decision making processes in the home (Kandel, Denise, & Lessor, 1972). The question reads: “In general, how are the most important decisions made between you and your parent(s) or other adult you live with (for example, what time you need to be home at night or where you can go with friends)?” Teens chose from out of six possible choices including: 1) “No parent or guardian at home” (neglectful); 2) “They tell me exactly what to do” (authoritarian); 3) “They ask my opinion but they have the final say” (authoritative); 4) “They discuss the decision with me but then let me decide” (authoritative); 5) “They trust me to decide for myself” (permissive, indulgent); 6) “They don’t care what I do, so I decide for myself” (permissive, neglectful). Adolescents were scored as having an authoritative parent if he or she responded that most important
decisions were made together with the parent. Adolescents who reported authoritative parenting styles were scored as 1; non-authoritative parenting styles were scored as 0.

Construct validity for this measure has been established in multiple studies indicating that authoritative parenting styles were related to greater independence, more positive attitudes toward school, and getting higher grades (Holden, 2001) (See Appendix C).

**Dependent Variable: Sexual Risk-Taking**

Three survey items were used to determine the sexual risk-taking behaviors of the adolescent respondents. Students were asked 1) “Have you ever had sexual intercourse?; 2) During your life, with how many people have you had sexual intercourse?; 3) The last time you had sexual intercourse did you or your partner use a condom?” The respondents were placed in one of two categories, depending on their answers. One category, *Sexually at Lower Risk* included those respondents who had had sex but had used a condom during the last time they had intercourse and have not had more than one sexual partner. Respondents were considered *Sexually at High Risk* if they had either not used a condom during the last time they had sexual intercourse or had more than one partner during their lifetime. Non-sexually active teens were not included in the analysis (See Appendix D).

**Analyses**

Quantitative analyses were performed using *SPSS for Windows v10.0* (Norusis, 1999).
Descriptive statistics determined that of the 507 9th-12th graders, 286 students (56%) reported having had sex. Those 286 students were selected as the sample of interest within the statistical analysis (SPSS) program. Of the 286 students who reported having had sex, 148 (52%) were female and 138 (48%) were male.

Following preliminary T-test analysis to determine mean levels of difference of independent variables, logistic regression analyses were conducted. Parental monitoring, parent-adolescent communication, and parenting styles were entered into a logistic regression equation as predictors of sexual risk-taking. Logistic regression, rather than linear regression, was used as a technique because the dependent variable (sexual risk-taking) is a dichotomous variable with two values, and because the relationship between the independent and dependent variables is assumed to be non-linear. Logistic regression permits the classification of subjects into groups based upon sorting criteria. In other words, changes in the independent variables change the probability of membership in the target group. In this case, logistic regression analysis was used to predict an outcome coded as 0 (low sexual risk-taking) or 1 (high sexual risk-taking); with predictions reported as probabilities of obtaining a 1.

To evaluate the independent variables for multicollinearity, prior to conducting the logistic regression analysis, correlation coefficients of the independent variables were examined. All correlations fell below .5, indicating that there was insufficient evidence to warrant concern about multicollinearity in this model (Stevens, 1996) (See Table 1).
Table 1
Test for Multicollinearity

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pamoniv</th>
<th>Pacomiv</th>
<th>Parstyiv</th>
<th>Sexridv2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pamoniv</td>
<td>1.000</td>
<td>.408**</td>
<td>.275**</td>
<td>-.204**</td>
</tr>
<tr>
<td>Pacomiv</td>
<td>.408**</td>
<td>1.000</td>
<td>.240**</td>
<td>-.032</td>
</tr>
<tr>
<td>Parstyiv</td>
<td>.275**</td>
<td>.240**</td>
<td>1.000</td>
<td>-.126*</td>
</tr>
<tr>
<td>Sexridv2</td>
<td>-.204**</td>
<td>-.032</td>
<td>-.126</td>
<td>1.000</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

Pamoniv = Parental Monitoring  
Pacomiv = Parent-Adolescent Communication  
Parstyiv = Parenting Styles  
Sexridv2 = Sexual Risk-Taking

A logistic regression was conducted for males and females separately to assess the contribution of each of the three independent variables (parental monitoring, communication, and parenting style) as predictors of sexual risk-taking. The main effect predictor variables were entered into SPSS as a block. This forced entry, **ENTER**, option allows the statistical program to determine which predictor variable accounts for the most variance. The low risk group [teens who reported only one sexual partner and also reported using a condom during their last sexual intercourse] was scored 0. The high risk group [teens who either had not used a condom during their last sexual encounter to prevent AIDS, HIV, or other sexually transmitted diseases and/or reported having had sex with more than one partner] was scored 1.

Previous research (Rodgers, 1999) suggests that sexual risk-taking may be predicted by an interaction of parenting process variables such as parental support and parent-adolescent communication. To examine this possibility in the present study, a logistic regression was conducted to examine the interaction effects of the independent variables.
Lastly, to investigate initial findings that indicated a significant main effect for parental monitoring, post-hoc analyses were also computed.
CHAPTER FOUR

RESULTS

Profile of the Sample

Fifty-six percent (286 students) of the 507 9th-12th graders reported having had sexual intercourse at least once [hereafter the term sample is used in reference to the 286 students who report having had sex]. A majority (61%) of the 286 students reported having sex for the first time between the ages of 13 and 15 years old. The majority (58%) of those who reported having had sexual intercourse also reported being sexually active (i.e., had sex within the past month).

Sexual Risk-Taking for Males and Females

About 30% of the sample was classified in the low-risk group of teens who reported having had only one sexual partner and also reported using a condom during last sexual intercourse. Seventy percent (70%) of the sample was classified in the high-risk group of teens who either had not used a condom during their last sexual encounter to prevent AIDS, HIV, or other sexually transmitted diseases and/or reported having had sex with more than one partner (See Table 2). The number of high sexual risk-takers was equally divided by gender. Of interest, the percentage of high sexual risk-takers did not steadily increase by grade. Anova analysis showed that ninth graders were significantly less likely to be sexually at high-risk than their 11th (p<.01) and 12th (p < .05) grade counterparts (See Table 2a). However, the 10th-12th graders were nearly equally at risk (See Figure 1).
Table 2
Sexual Risk-Taking Behaviors (n=286)

<table>
<thead>
<tr>
<th>Risk-Taking Variable</th>
<th>n=286</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sexual partners</td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>101</td>
</tr>
<tr>
<td>Two</td>
<td>55</td>
</tr>
<tr>
<td>Three</td>
<td>49</td>
</tr>
<tr>
<td>Four</td>
<td>27</td>
</tr>
<tr>
<td>Five</td>
<td>15</td>
</tr>
<tr>
<td>Six or more</td>
<td>29</td>
</tr>
<tr>
<td>Condom use (during last intercourse)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>169</td>
</tr>
<tr>
<td>No</td>
<td>104</td>
</tr>
</tbody>
</table>

Table 2a
Between-Grade Level Differences for Sexual Risk-Taking

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Mean Difference</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th</td>
<td>-.14</td>
<td>.241</td>
</tr>
<tr>
<td>11th</td>
<td>-.29*</td>
<td>.001</td>
</tr>
<tr>
<td>12th</td>
<td>-.23**</td>
<td>.022</td>
</tr>
<tr>
<td>10th Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9th</td>
<td>.14</td>
<td>.241</td>
</tr>
<tr>
<td>10th</td>
<td>-.14</td>
<td>.186</td>
</tr>
<tr>
<td>11th</td>
<td>--</td>
<td>.697</td>
</tr>
<tr>
<td>11th Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9th</td>
<td>.29*</td>
<td>.001</td>
</tr>
<tr>
<td>10th</td>
<td>.14</td>
<td>.186</td>
</tr>
<tr>
<td>12th</td>
<td>--</td>
<td>.849</td>
</tr>
<tr>
<td>12th Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9th</td>
<td>.23**</td>
<td>.022</td>
</tr>
<tr>
<td>10th</td>
<td>--</td>
<td>.697</td>
</tr>
<tr>
<td>11th</td>
<td>--</td>
<td>.849</td>
</tr>
</tbody>
</table>

* p < .001
** p < .05
Of the students who have had sex, only 35% report having had one partner while 25% report having had 4, 5, or 6+ sexual partners. Although 9th and 10th graders were more likely to have had only one sexual partner, the number of partners did not steadily increase by grade (See Figure 2).
The students reporting sexual risk-taking were ethnically diverse; fifty percent reported their ethnicity as White/Caucasian; forty percent African-American/Black; three percent Native American; three percent bi-racial; two percent other; and one percent Asian.

**Preliminary Data Analysis**

T-tests were conducted to examine mean level differences of independent variables by gender (See Table 3). T-tests revealed that mean level differences for the parental monitoring variable were significantly different for boys and girls. Consistent with the research literature, boys in this sample report less parental monitoring than girls. There were no significant mean level differences between genders for either parent-adolescent communication or parenting styles.
Table 3  
Mean Scores of Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>Females n=140</th>
<th></th>
<th>Males n=129</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Pamoniv</td>
<td>18.06*</td>
<td>4.93</td>
<td>16.31*</td>
<td>5.90</td>
</tr>
<tr>
<td>Pacomiv</td>
<td>16.69</td>
<td>8.00</td>
<td>13.83</td>
<td>7.32</td>
</tr>
<tr>
<td>Parstyiv</td>
<td>.50</td>
<td>.50</td>
<td>.54</td>
<td>.50</td>
</tr>
</tbody>
</table>

*p < .001

Pamoniv = Parental monitoring  
Pacomiv = Parent-adolescent communication  
Parstyiv = Parenting style

**Logistic Regression Analyses**

For females, a relationship was indicated between perceived parental monitoring and sexual risk-taking (p < .05, $X^2 = 7.44$, df = 3, n = 148) (See Table 4). Females who perceived close monitoring by their parents were more likely than their same sex peers who did not perceive close monitoring by their parents to demonstrate low sexual risk-taking behaviors (to be in a monogamous relationship and to use a condom). For females, a one-unit decrease in perceived parental monitoring multiplied the odds by .88 of being classified in the high risk group. In other words, less perceived parental monitoring significantly decreased the odds that female adolescents would use a condom and have only one partner. There were no significant effects for parent-adolescent communication or parenting styles for females indicating that neither the perceived frequency of communication with parents or having authoritative parents influenced whether or not a female teen was classified as a low or high sexual risk-taker.
For males, no significant effects or trends were found within the equation (see Table 4). For this sample, adolescent male sexual risk-taking was not predicted by perceived parental monitoring, parent-adolescent communication, or parenting style.

Table 4
Logistic Regression Model of Probability of Sexual Risk-Taking by Gender

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th></th>
<th></th>
<th></th>
<th>Male</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>SE</td>
<td>Exp(β)</td>
<td>β</td>
<td>SE</td>
<td>Exp(β)</td>
<td></td>
</tr>
<tr>
<td>Pamoniv</td>
<td>-.12*</td>
<td>.05</td>
<td>.88</td>
<td>-.04</td>
<td>.04</td>
<td>.95</td>
<td></td>
</tr>
<tr>
<td>Pacomiv</td>
<td>.04</td>
<td>.02</td>
<td>2.01</td>
<td>-.00</td>
<td>.03</td>
<td>.99</td>
<td></td>
</tr>
<tr>
<td>Parstyiv</td>
<td>-.26</td>
<td>.39</td>
<td>.77</td>
<td>-.58</td>
<td>.48</td>
<td>.55</td>
<td></td>
</tr>
</tbody>
</table>

-2 log likelihood          157.59          129.52
LR X²                        7.44                4.52

*Significant at the p < .05 level.

Pamoniv = Parental monitoring
Pacomiv = Parent-adolescent communication
Parstyiv = Parenting style

Interactions of Independent Variables

Rodgers' (1999) research indicated the potential for interaction effects of parenting process variables (i.e., parental monitoring by parent-adolescent communication) to be a key factor in relation to adolescent sexual risk-taking.

In the present study, specific to the 286 students who had had sex, a significant interaction effect was indicated for perceived parental monitoring by parenting styles (p < .01, $X^2 = 10.56$, df = 3, n = 286) indicating that an increase in perceived parental monitoring and the adolescent's perception of authoritative parenting styles in the home decreased the likelihood that an adolescent would engage in sexual risk-taking (See Table 5). Of interest, with the 286 students included in the analysis, trends were also indicated
for parent-adolescent communication by parental monitoring as well as parent-adolescent communication by parenting styles (See Table 5).

The interactions were also examined by gender. Results indicate that interactions of these independent variables predict sexual risk-taking outcomes for girls, but not for boys (See Table 4). In general, the lack of significant findings for boys indicates that the variables that predict sexual risk-taking for boys are not highly linked with parenting processes.

Table 5
Logistic Regression of Interactions for Independent Variables

<table>
<thead>
<tr>
<th>Interaction</th>
<th>β</th>
<th>SE</th>
<th>Exp (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=286 students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacomiv by Pamoniv</td>
<td>-.002***</td>
<td>.001</td>
<td>.99</td>
</tr>
<tr>
<td>Pacomiv by Parstyiv</td>
<td>.06***</td>
<td>.03</td>
<td>1.06</td>
</tr>
<tr>
<td>Pamoniv by Parstyiv</td>
<td>-.08*</td>
<td>.03</td>
<td>.92</td>
</tr>
<tr>
<td>n=148 females</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacomiv by Pamoniv</td>
<td>-.003***</td>
<td>.001</td>
<td>.99</td>
</tr>
<tr>
<td>Pacomiv by Parstyiv</td>
<td>.112***</td>
<td>.04</td>
<td>1.01</td>
</tr>
<tr>
<td>Pamoniv by Parstyiv</td>
<td>-.110***</td>
<td>.04</td>
<td>.82</td>
</tr>
<tr>
<td>n=138 males</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacomiv by Pamoniv</td>
<td>.00</td>
<td>.002</td>
<td>1.0</td>
</tr>
<tr>
<td>Pacomiv by Parstyiv</td>
<td>-.003</td>
<td>.05</td>
<td>.99</td>
</tr>
<tr>
<td>Pamoniv by Parstyiv</td>
<td>-.044</td>
<td>.04</td>
<td>.95</td>
</tr>
</tbody>
</table>

* Significant at the p < .05. level
*** Significant at the p < .10. level

Pacomiv by Pamoniv = Parent-adolescent communication by parental monitoring
Pacomiv by Parstyiv = Parent-adolescent communication by parenting styles
Pamoniv by Parstyiv = Parental monitoring by parenting styles

Post-Hoc Analyses

To further examine the significance of parental monitoring which was indicated in the first logistic regression, post-hoc analyses were conducted to determine the effects of particular aspects of parental monitoring on the logistic regression equation. Factor analysis of the parental monitoring scale was conducted with principal component
extraction and varimax rotation (See Table 6). Of the six variable scale, four variables that assess for monitoring of the teen loaded together while the two other variables that assess for monitoring the teen's friends also loaded together. Two (by gender) additional logistic regression analyses were conducted to assess for both the contribution of the four teen monitoring variables [“my parent(s) know where I am after school”; “If I am going to be home late, I am expected to call my parent(s) to let them know”; “I tell my parent(s) whom I’m going to be with before I go out”; “When I go out at night, my parent(s) know where I am”] and the two monitoring the teen's friends variables ["my parent(s) know who my friends are"; and “my parent(s) know the parents of my friends"] as potential predictors of sexual risk-taking.

Table 6
Factor Analysis of Parental Monitoring Scale (PMS)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Component 1</th>
<th>Component 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONCALL2</td>
<td>.801</td>
<td>.018</td>
</tr>
<tr>
<td>MONNIT2</td>
<td>.776</td>
<td>.367</td>
</tr>
<tr>
<td>MONAFSC2</td>
<td>.772</td>
<td>.215</td>
</tr>
<tr>
<td>MONWHO2</td>
<td>.769</td>
<td>.386</td>
</tr>
<tr>
<td>MONPRT2</td>
<td>.136</td>
<td>.900</td>
</tr>
<tr>
<td>MONFR2</td>
<td>.295</td>
<td>.843</td>
</tr>
</tbody>
</table>

Principal Component Extraction.
Varimax Rotation Method.
Three iterations.

Moncall2 = Monitoring by an expectation of calls if adolescent is late
Monit2 = Monitoring by knowing where the teen is at night
Monafsc2 = Monitoring after school whereabouts
Monwho2 =Monitoring with expectation for teen to tell who s/he is with before going out
Monprt2 = knowing the parents of the teen's friends
Monfr2 = monitoring (knowing) the friends of adolescents

For females, a significant main effect was revealed for perceived monitoring of the teen's after-school whereabouts (p < .01, $X^2 = 19.6$, df = 4, n = 148) (See Table 7).
Females who perceived close monitoring by their parents about their whereabouts after school were more likely than their same sex peers who did not perceive close monitoring by their parents after school to demonstrate low sexual risk-taking behaviors (to be in a monogamous relationship and to use a condom). Perceived monitoring of the female adolescent's friends had no impact on the dependent variable (See Table 8).

For males, a trend was revealed for perceived monitoring of who the teen is with before he goes out (See Table 7). Perceived monitoring of the male adolescent's friends did not influence sexual risk-taking (See Table 8).

Table 7
Logistic Regression Analysis on Monitoring Teen Variables by Gender

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Exp (β)</th>
<th>β</th>
<th>Male</th>
<th>Exp (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONAFSC2</td>
<td>-1.02*</td>
<td>.36</td>
<td>.35</td>
<td>.09</td>
<td>.26</td>
</tr>
<tr>
<td>MONCALL2</td>
<td>-.31</td>
<td>.22</td>
<td>.73</td>
<td>-.001</td>
<td>.21</td>
</tr>
<tr>
<td>MONWHO2</td>
<td>-.01</td>
<td>.27</td>
<td>.98</td>
<td>-.60*</td>
<td>.33</td>
</tr>
<tr>
<td>MONIT2</td>
<td>.18</td>
<td>.29</td>
<td>1.19</td>
<td>.04</td>
<td>.31</td>
</tr>
</tbody>
</table>

-2 log likelihood:  
Female: 150.69  
Male: 129.92

Logistic regression $X^2$:  
Female: 19.62  
Male: 8.95

*p <.05.

Monafsc2 = Monitoring after school whereabouts  
Moncall2 = Monitoring with expectation of calls if adolescent is late  
Monwho2 = Monitoring with expectation for teen to tell who s/he is with before going out  
Monit2 = Monitoring by knowing where the teen is at night
Table 8
Logistic Regression Analysis on Monitoring Teen’s Friends by Gender

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>SE</th>
<th>Exp (β)</th>
<th></th>
<th>β</th>
<th>SE</th>
<th>Exp (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONFR2</td>
<td>.007</td>
<td>.24</td>
<td>1.00</td>
<td>MONFR2</td>
<td>-.03</td>
<td>.25</td>
<td>.96</td>
</tr>
<tr>
<td>MONPRT2</td>
<td>-.04</td>
<td>.19</td>
<td>.95</td>
<td>MONPRT2</td>
<td>-.14</td>
<td>.23</td>
<td>.86</td>
</tr>
</tbody>
</table>

-2 log likelihood
Logistic regression $X^2$

Monfr2 = monitoring (knowing) the friends of adolescents
Monprt2 = knowing the parents of the teen’s friends
CHAPTER FIVE

DISCUSSION

The purpose of this study was to explore the following research questions: What is the relationship between adolescent sexual risk-taking and the adolescent's perception of several parenting processes including level of parental monitoring, frequency of parent-adolescent communication, and type of parenting style? What influence, if any, does the gender of the adolescent have on the relationship?

In light of the theoretical framework guiding this study, namely family systems theory “which focuses on interactional processes of family life rather than viewing adolescents or parents in isolation” (Spring, 1999), this section will focus on the meaning and relevance of this study's findings to adolescents, parents, families, and the systems beyond the home such as the clinicians who work with them.

Key Findings

It is clear from this study that sexual risk-taking, i.e., a history of either not using a condom or having had multiple partners, is a significant problem among 9th-12th grade males and females. Overall, about two out of five adolescents reported engaging in sexual risk-taking behaviors. The number of sexual risk-takers was equally divided by gender. Of interest, the percentage of sexual risk-takers did not steadily increase by grade. Although ninth graders were somewhat less likely to be sexually at risk than their counterparts, the 10th-12th graders were nearly equally at risk (See Figure 1).

Results of the logistic regression analyses provide some support for the importance of parenting processes in relation to adolescent sexual risk-taking. Although
the adolescent's perceptions of parent-adolescent communication and parenting styles were not directly associated with sexual risk-taking, there was an inverse relationship between the adolescent's perceptions of parental monitoring and the odds of being sexually at risk. In other words, adolescent males and females who perceive that their parents monitor particular behaviors (i.e., after school whereabouts, who the adolescent is out with) are less likely to have had more than one sexual partner and/or to have unprotected sex. Differences for males and females were found in relation to the particular perceived monitoring behaviors that were related to a decrease in the odds of a teen being sexually at risk. For female adolescents, high levels of perceived parental monitoring of the girl's after-school whereabouts decreased odds of classification in the sexually at risk group. For males, high levels of perceived parental monitoring of who the boy is with when he goes out decreased odds of classification in the sexually at risk group.

Another key finding suggests that perceived parental monitoring within the context of authoritative parenting can positively influence female adolescents and decrease the likelihood of high risk-taking behaviors. The combination of high levels of communication and high levels of parental monitoring, as well as high levels of communication and authoritative parenting, was associated with lower sexual risk-taking for female adolescents. The fact that there were no significant interaction effects for males may indicate the likelihood that other variables, such as peer influence, are related to the sexual risk-taking behaviors of boys (Metzler et al., 1994). The findings related to interaction effects emphasize the complex nature of parenting processes, and the complex process within which adolescents and parents influence one another.
Findings within the Context of the Literature Review

This study is consistent with current research, including Chilman (1990) and Rodgers’ (1999) review of literature, which indicated that teens are likely to engage in sexual intercourse before finishing high school. Research on adolescent sexuality has focused overwhelmingly on the initiation of sexual intercourse (Rodgers, 1999). This study confirms the need for researchers to look beyond abstinence toward seeking factors that encourage sexual responsibility. In particular, this study's results reveal a need for prevention efforts focused on reducing sexually risky behavior in adolescence.

Consistent with the findings of Rodgers (1999); Metzler et. al (1994); and Stanton (2000) this study further emphasizes that parental monitoring can be a positive force within the lives of adolescent males and females. Although Rodgers (1999) did not examine specific parental monitoring behaviors, the results from her study, consistent with this study, did indicate a need for further investigation into what degree/type/frequency of monitoring proved effective in reducing sexual risk-taking in adolescents.

As Jacobson and Crockett (2000) noted, this study also found that parental monitoring could have a stronger association for decreasing unwanted behaviors for girls than for boys. This study's conception of gender as a moderating variable, based on previous research findings, was confirmed as an important aspect of the model. As Stattin and Kerr (2000) note, girls may be more likely to share information and therefore decrease the need for parents to solicit them for reports. If this difference for girls is true, this discrepancy could serve to inform researchers to look beyond parenting processes
toward other potential protective factors that contribute to adolescent males' acts of sexual responsibility.

Consistent with Stattin and Kerr's (2000) new prescription for parental monitoring, this study indicates that parental monitoring is an important variable to study in relationship to adolescent sexual risk-taking. Also consistent with Stattin and Kerr (2000), this study's findings, particularly for males, indicate that it may be other variables such as youth disclosure or peer factors that moderate and enhance the influence of parental monitoring on sexual risk-taking.

Since studies examining the relationship between parent-adolescent communication and adolescent sexual risk-taking have often reported inconclusive results, it is not surprising that this study's findings indicate that parent-adolescent communication is related to sexual risk-taking, but only for females, when enhanced by parental monitoring and authoritative parenting styles. Jaccard, Dittus, and Gordon (1998) suggest that parent-adolescent communication is generally not measured on enough dimensions. As these researchers suggest, it could be that this study would have indicated significant relationships related to parent-adolescent communication (in addition to the interaction effects) if the parent-adolescent communication measure had also assessed for more about the content, timing, and style of the communication about sex and/or birth control.
Clinical Relevance

There is a need for more research pertaining to the investigation into what particular characteristics of teens and their families distinguish adolescent sexual risk-takers from teens who engage in more responsible sexual behavior. This study provides preliminary information about some factors that should be examined more carefully in the future.

First, the results from this study provide clinicians with important information about the sheer numbers of adolescents who are engaging in sexually risky behaviors. Therapists have both prevention and intervention opportunities to educate young clients about the problems associated with sexual risk-taking behaviors.

Second, the results of this study vary by gender. Both male and female adolescents are engaging in sexual risk-taking behaviors, but apparently, the factors that influence those behaviors are quite different. Parents could benefit from knowledge of the differences between males and females related to the effectiveness of parenting processes.

Clinicians are informed by this study primarily on the topic of parental monitoring. Therapists working with adolescents and their families need to know the importance of teaching parents about monitoring, specifically the skill of monitoring an adolescent without being intrusive or authoritarian. For female clients, this study's results suggest that therapists should particularly encourage the parents to monitor the girl's after-school whereabouts. For male clients, results suggest that therapists should encourage parents to know who their male adolescent is with when he goes out. For males, it is likely that peer influence relates strongly to sexual risk-taking behaviors.
Clinicians working with parents of adolescents should get into the habit of formulating a line of questioning to assess for monitoring, communication, and parenting style habits in the home. Questions, inherent in their nature, are suggestions. For instance, clinicians might ask: “So, what aspects of your teen’s life do you know the most about? Is it typical for you to know where your teen is most of the time? Is it typical for you to know who the adolescent is with? Who does your adolescent spend time with after-school? What are they doing after-school and where are they? Do you ask your teen to call you throughout the afternoon/night if s/he is changing locations?”

This line of questioning suggests the importance of monitoring and would allow the clinician to point out areas of parenting strengths or areas where the teen may be finding time for risk-taking. As for communication, therapy is the perfect arena to find out how parents and teens are talking and what topics are discussed or neglected. The quality of the communication and the degree of openness between parent and teen is an area to strengthen should parents and adolescents seek therapy. Communication skills are in-session topics that clinicians can encourage and model. A line of questioning about parenting processes (like those questions given above) will provide a therapist with in-session information, both factual and process-oriented, as to style of parenting. Authoritative parenting would present itself in-session as a balanced combination of limitations and rules set for the adolescent as well as a willingness to encourage independence.

The findings related to interaction effects suggest that parenting processes enhance one another. In other words, parental monitoring within the context of authoritative parenting styles is likely to inhibit the sexual risk-taking of adolescents.
whereas parental monitoring perceived as an intrusive action by an authoritarian parent may increase sexual risk-taking behaviors. Monitoring, communication, and style of parenting are all important processes to gather information about in a clinical setting. Difficulties in these areas of parenting would most likely be evident should an adolescent and parent seek therapy for problematic behavior. Therapists should point out these essential interactions and encourage parents and adolescents to nurture well-connected, well-informed, respectful, responsive, disciplined, loving relationships.

**Study Strengths**

This study adds to the existing literature on parenting processes and adolescent sexual risk-taking behaviors by analyzing sons and daughters separately, by utilizing a sample from a rural area, and by conceptualizing the problem of adolescent sexual behavior as beyond sexual initiation to factors associated with sexual risk-taking.

**Study Limitations**

This study has several limitations including the use of self-report measures exclusively, the lack of data from the parents' perspective, and the use of the term "parent(s)" in the survey which serves to unify, rather than individuate the teen's perceptions of their mothers and fathers. However, as noted earlier, the adolescent’s perceptions of parenting processes are the most influential components of behavior change; so data from the parents’ perspective, although potentially interesting, might be unnecessary.
Since the sex of the adolescent and sex of the parent have been shown to effect the degree and frequency of communication in the family (Nolin & Petersen, 1992; Noller & Callan, 1990; Papini et al., 1990); it would be important for future research to distinguish the gender of both the adolescent and the parent.

Another limitation of this study is that the parent-adolescent communication scale utilized in the Virginia Adolescent Resiliency Assessment (VARA) lacks questions assessing important communication dimensions including style, content, timing, and general family environment.

Future studies should address more of the complexities involved in communication such as the quality (lecturing versus collaborative conversations) and type (modeling via behavior versus talking).

This study also had limitations regarding the survey questions pertaining to monitoring. Considering gender differences for monitoring, this study may not ask about the particular monitoring behaviors that are effective for boys and their could be more monitoring behaviors that are effective for girls. For instance, boys may benefit from their parents monitoring the completion of homework assignments and attendance at school. Girls may benefit from their parents monitoring the school performance and driving records of their daughters’ dates.

**Suggested Future Research**

Clearly clinicians could benefit from more comprehensive studies on the nature of the relationship between parental processes and adolescent sexual behavior. Further studies could be expanded methodologically with mixed-methods studies as well as
longitudinal studies. The research collective could also benefit from a series of studies focused only on the topics of parental monitoring, parent-adolescent communication, parenting styles, and their relationship to adolescent sexual risk-taking. The nature of the VARA survey, in that it is designed to assess for many aspects of the adolescents' lives, does not allow for such an in-depth focus. For instance, the present study used survey results that included a six-item scale on parental monitoring. Although the parental monitoring scale has established reliability and validity (Dix & Gershoff, 2001), the research collective could benefit from qualitative responses about parental monitoring as well as a more comprehensive quantitative measure. Likewise, the eight-item parent-adolescent communication instrument and one-item parenting styles instrument could also be enhanced with more in-depth quantitative and qualitative questioning.

The gender of the parent is an important research issue to consider in similar, future studies. In other words, parenting process scales should be divided into two scales in order for those adolescents who live in a household with both a mother and a father to rate their parents separately.

**Conclusion**

Although the logistic regression equations in this model did provide support for the role of parental influence on adolescent sexual risk-taking behaviors, particularly for female adolescents, the study results also suggest that a number of other factors are likely to strongly influence these behaviors. The results of this study also point to the complexity of parenting processes and the interrelationship between parenting processes and reduction in sexual risk-taking behaviors.
References


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Spring, E. (1999). *How parents experience a transition to adolescence.*, Virginia Polytechnic and State University, Falls Church, VA.


Appendix A

Parent-Adolescent Communication Measure

How often, in the past year, have you communicated with one of your parents (or other adults you live with) about each of the following? (Remember: answer about the adults you live with.)

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>No Adult At Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>112. Drugs and alcohol</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>113. Sex and/or birth control</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>114. Your job or education plans after high school</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>115. Your personal problems/concerns</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>116. Teachers or classes in school</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>117. Dating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>118. Things you enjoy (for example, movies, video games, clothes, sports, music)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>119. Your friends and the people you spend time with</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
## Appendix B

**Parental Monitoring Measure**

INDICATE HOW MUCH THE FOLLOWING ARE TRUE FOR YOU, WHEN YOU THINK ABOUT THINGS OVERALL. REMEMBER: ANSWER ABOUT YOUR PARENTS OR THE ADULTS YOU LIVE WITH

<table>
<thead>
<tr>
<th>OVERALL:</th>
<th>NEVER</th>
<th>RARELY</th>
<th>SOME TIMES</th>
<th>ALOT OF THE TIME</th>
<th>ALWAYS</th>
<th>NO ADULT AT HOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>103. My parent(s) know where I am after school.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>104. If I am going to be home late, I am expected to call my parent(s) to let them know.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>105. I tell my parent(s) whom I’m going to be with before I go out.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>106. When I go out at night, my parent(s) know where I am.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>107. My parent(s) know who my friends are.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>108. My parent(s) know the parents of my friends.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix C

Parenting Styles Variable

In general, how are the most important decisions made between you and your parent(s) or other adults you live with (for example, what time you need to be home at night or where you can go with friends)?

0 = No parent or guardian at home

1 = They tell me exactly what to do

2 = They ask my opinion, but they have the final say

3 = We talk about it and together we come to a decision

4 = They discuss the decision with me but then let me decide

5 = They trust me to decide for myself

6 = They don’t care what I do, so I decide for myself
Appendix D

Sexual Risk-Taking Measures

138. Have you ever had sexual intercourse?
0 = Yes
1 = No

141. During your life, with how many people have you had sexual intercourse?
0 = I have never had sexual intercourse
1 = 1 person
2 = 2 people
3 = 3 people
4 = 4 people
5 = 5 people
6 = 6 or more people

145. The last time you had sexual intercourse did you or your partner use a condom?
0 = I have never had sexual intercourse
1 = Yes
2 = No
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M.S. Candidate, Marriage and Family Therapy, Virginia Polytechnic and State University, Northern Virginia Campus, Falls Church, VA. GPA: 3.9. Graduation expected May 2001. Thesis: Examining the relationship between adolescent sexual risk-taking and monitoring, communication, and parenting styles in the home.

B.A., cum laude, English Literature, The University of the South at Sewanee, Sewanee, TN, May 1995. GPA: 3.3

Clinical Experience

♦ Inova Kellar Center Intensive Family Therapy Services, Therapist Intern, Fairfax, VA, May 2000-May 2001. Provided brief, but intensive (two to three times weekly) family therapy addressing chronic behavior problems, substance abuse, mood and anxiety disorders, family discord, and other crisis-level problems.

♦ Inova Kellar Center Adolescent Day Treatment, Therapist Intern, Fairfax, VA, May 2000-May 2001. Provided therapy for adolescents aged 13 to 18 and to their families in an alternative to inpatient-care, clinically intensive program which provides individual, group, and family therapy in addition to school-year education at the Kellar School.

♦ Center for Family Services, Therapist Intern, Falls Church, VA, August, 1999-May 2001. Worked systemically with individuals, couples, and families under the supervision of Licensed Marriage and Family Therapists. Over 500 hours accrued to date.

♦ SARA (Sexual Assault Resource Agency), Volunteer Crisis Counselor, Charlottesville, VA, August 1997-April 1998.

Research Experience

♦ Graduate Research Assistant, Virginia Polytechnic and State University, Northern Virginia Campus, Falls Church, VA, May 2000-May 2001. Graduate research assistant to Angela Huebner, Ph.D. Assisted with data collection and data analysis of the Virginia Adolescent Resiliency Assessment. Survey and focus group research.

♦ Graduate Research Assistant, Virginia Polytechnic and State University, Northern Virginia Campus, Falls Church, VA, August 1998-May 2000. Graduate research assistant to Sandra Stith, Ph.D. and Karen Rosen, Ph.D. Researcher for a grant through USDA and the USAF focusing on domestic violence prevention and intervention. Interviewer and researcher for the NIMH grant: Systemic Treatment of Male Batterers; a Domestic Violence Focused Couples Counseling Program seeking to manualize an Integrated Solution-Oriented


Professional Organizations:

American Association of Marriage and Family Therapy, Student Member. 1999-present.