

ATTACHMENT AND ATTITUDES: FACTORS INFLUENCING
ADOLESCENT SEXUALITY

by

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CHAPTER I
STATEMENT OF THE PROBLEM

Societal rules in the American culture concerning sexual behavior are unclear for present day youth. Adolescents receive a myriad of mixed messages on all levels, telling them at once that sexuality is a natural part of the human experience, yet is also something to be feared for consequences such as unplanned pregnancies and sexually transmitted diseases. The additional "fly in the ointment" is the message from a large segment of society that some or all elements of sexuality are forbidden outside of marriage. These conflicting messages leave the adolescent in a conundrum: how should the adolescent decide if, how and when to express her or his sexuality?

Faced with this dilemma, the adolescent may make choices regarding her or his sexuality based on a number of factors, such as personal belief systems, parental expectations, and peer pressure. And though these are obviously important issues to consider in decision making, they may be considered secondary to the decision-making process that the individual uses to incorporate these constructs. Because attachment theory incorporates both biological and environmental influences, it could add

substantially to the various theories used to describe and explain this decision-making process.

Because of its dialectical-contextual nature, attachment theory describes a process by which the child and caregiver develop a bond that creates a pattern for relationships throughout the child's life (Bowlby, 1969, 1973, 1980; Bretherton, 1992). The behaviors that are exhibited by the individual in significant early childhood relationships are repeated throughout life and can be expected to be manifest in later intimate relationships (Bowlby, 1969; Hazan & Shaver, 1987; Shaver & Hazan, 1987). It has been suggested that individuals who have established secure relationships with their caregivers will subsequently create secure relationships with intimate partners, as well as in other significant relationships (Armsden & Greenberg, 1987). Armsden and Greenberg (1987) described these individuals as securely attached to their parents as well as to others. On the other hand, individuals who were ambiguous or avoidant in their relationships with their caregivers were found to create ambiguous or avoidant relationships with their dating partners. These individuals can be identified as insecurely attached to their parents and other significant people in their lives (Armsden & Greenberg, 1987).

The research by Armsden and Greenberg (1987) explored the relationships of adolescents. Hazan and Shaver (1987) examined the relationships of adults with the use of a questionnaire, which was developed in order to identify the correlation between self-reported childhood attachment styles and the romantic relationships that were currently being experienced by these adults. Their findings were that the attachment styles adults reported they experienced in childhood were very similar to the attachment styles they exhibited in their current relationships. Similar studies examining adult relationships continue to support these original findings (Hazan & Shaver, 1990; Kirkpatrick & Shaver, 1990, 1992; Shaver & Hazan, 1987).

Since attachment has been shown to be a critical component of infant and child development, as well as an important dimension of adolescent and adult relationships, a logical extension of this area of research would be the relationship between adolescent attachment style and the attitudes and behaviors these adolescents exhibit in their sexual relationships.

This research hypothesizes that securely attached individuals will behave responsibly and discriminately with regard to sexual behavior. However, it is possible that the sexual behavior of individuals who are insecurely attached may be moderated by their belief systems. Of particular

interest will be the effect that sexual attitudes have on the behaviors of those who are insecurely attached. This study will broaden our understanding of factors that influence decision-making regarding adolescent sexual behavior. Evidence of a role of attachment on this behavior would provide another point of intervention for adolescents and their families. Additionally, this information could be beneficial in developing programs that strengthen family bonds, which may in turn shape the choices that American youth make concerning their lives.

CHAPTER II
REVIEW OF THE LITERATURE ON ATTACHMENT
AND ADOLESCENT SEXUALITY

This research examined the attachment styles and sexual attitudes and behaviors of late adolescents, examining the possible influence of an adolescent's attachment style on these attitudes and behaviors. This chapter will begin with the history of attachment theory introduced by John Bowlby (1969, 1973, 1980) and further developed by Mary Ainsworth (Ainsworth, 1989; Bretherton, 1992). The evidence of continuity of attachment beyond infancy and childhood will then be reviewed, covering research with adult and adolescent populations. Finally, this chapter will consider the possible effect of attachment on adolescent behaviors, focusing on adolescent sexuality.

History of Attachment Theory

Attachment theory, as it has come to be recognized, was introduced by John Bowlby, a neo-Freudian who was at first interested in the similarities between ethology and human behavior, and more specifically, attachment behavior (Bowlby, 1969). Bowlby began his research on attachment while performing volunteer work at a school for maladjusted children (Bretherton, 1992). There he found two boys from

different backgrounds whose common denominator was a lack of a stable mother figure at any point in their lives (Bretherton, 1992). This experience led Bowlby into the field of child psychiatry and a study of the effect of family relationships on psychological development (Bretherton, 1992). Simultaneously and independently similar ideas were being developed by psychoanalytic object-relations theorists (Bretherton, 1992), suggesting a degree of universality and application in various fields of inquiry in the conceptualization and study of attachment theory.

Bowlby's first empirical work in the study of attachment theory was based on case notes from the London Child Guidance Clinic in which he detailed the symptoms of 44 boys whose histories were marked by maternal deprivation and separation (Bretherton, 1992). Later in his studies of the adverse effects experienced by institutionalized infants and children who were separated from their mothers, Bowlby (1969) observed that these children suffered separation anxiety which was thought to stem from the attachment a child feels for its mother. Bowlby suggested that an event which activates both escape and attachment behavior occurs when the attachment figure is not present and separation anxiety is elicited in the individual (Bretherton, 1992). Moreover, it was Bowlby's position that excessive separation anxiety was the result of adverse family experiences such as

repeated and prolonged abandonment or rejection by the parents (Bretherton, 1992). Bowlby believed that this attachment serves to form the base from which a child explores the world and becomes the template upon which an individual forms relationships throughout life (Bowlby, 1969).

Bowlby's ideas regarding attachment theory were influenced by his interest in ethology and sociobiology (Bretherton, 1992). According to Lerner (1986), sociobiology is a theory espoused by those with a predetermined-epigenetic viewpoint, and attempts to combine biological sciences with the social sciences through biological reductionism. Although some biological approaches to studying behavior are reductionistic, the ethological model is more inclined to focus on the whole organism and to consider the organism in the context of its environment. Sociobiology has become almost synonymous with ethology, the study of animal behavior, and has a certain degree of contextualism in its focus on species and social structure (Miller, 1993). A distinction between sociobiology and ethology, though, is in the level of analysis. Sociobiology is concerned with a group level of analysis as well as cross generational analysis, while

ethology is more concerned with the individual level of analysis.

John Bowlby (1969) has used the constructs of both ethology and sociobiology to explain attachment behaviors observed in human infants as well as in other species. The sociobiological explanation of attachment is based on the integration of the infant's need for the mother and the bi-directional relationship that arises from that need. Therefore, the infant is born with biological behaviors necessary to interact with the caregiver. These interactions lead the caregiver to bond to the infant, enabling the infant's survival. The attachment that the child develops for the caregiver, then, becomes the foundation for future relationships (Bowlby, 1969).

Ainsworth's Research on Infant Attachment

Mary Ainsworth began working with John Bowlby in 1950 and eventually became the first to systematically investigate the hypothesis that a small child who is securely attached to his/her mother will have the confidence necessary to independently explore his/her environment (Bretherton, 1992; Schneider, 1991). Through observational research in Uganda, Ainsworth found that infants whose mothers were sensitive and responsive exhibited playful

behaviors and appeared confident in their surroundings (Bretherton, 1992; Schneider, 1991). This research was repeated in Baltimore when in 1963 Ainsworth again used careful naturalistic observations as she searched for meaningful behavioral patterns rather than simply the frequency of specific behaviors (Bretherton, 1992). Ainsworth's findings in the Baltimore project were similar to those of the Uganda research; that is, infants whose mothers were responsive relied on facial expressions, gestures and vocalization rather than crying for communication, and the mother-child contact was characterized by observers as more satisfying and affectionate for both the mother and the child (Bretherton, 1992).

In 1969 Mary Ainsworth developed The Strange Situation, a twenty minute experimental enactment of infants' responses to their mothers' absences and their reunions, as well as to strangers. This enactment occurred in eight stages within a laboratory setting and was designed to first observe mother and infant who are then joined by an unfamiliar woman (Bretherton, 1992). The stranger plays with the baby while the mother leaves and returns. The baby is then left alone, after which the stranger returns, followed later by the mother. Of particular interest was the behavior of the children on the mothers' return. Some children exhibited

anger toward their mothers, while others ignored their mothers. Still other children responded positively when their mothers returned, seeking proximity. Analysis revealed that those children who were ambivalent or avoidant toward their mothers were reported by their mothers to have less harmonious relationships with their mothers than those children who sought to be close to their mothers on return (Bretherton, 1992).

From her research Ainsworth identified three attachment styles: (1) secure, (2) insecure avoidant, and (3) insecure anxious/ambivalent. Based on attachment theory, Ainsworth suggested that securely attached infants perceived their mothers as available and responsive, which in turn enabled the infants to better cope with separation. She further postulated that anxiously attached infants perceived their mothers as inconsistently responsive, therefore they exhibited anger because they were unsure of what to expect and feared disappointment. Finally, Ainsworth found that avoidantly attached infants perceived their mothers as rejecting, and used avoidance as a defense mechanism (Schneider, 1991).

These attachment styles have meaningful consequences for children. Those who are securely attached to their primary caregiver(s) are characterized as having warm, affectionate relationships with their caregiver(s), and have

also been found to be successful in other relationships (Ainsworth, 1989; Bowlby, 1969). Conversely, the children who have been found to be insecurely or avoidantly attached to their primary caregiver(s) have relationships with their caregiver(s) that are characterized by conflict and low levels of satisfaction. These styles, which have come to be accepted descriptive categories of attachment, have been shown to be continuous throughout the life-cycle (Ainsworth, 1989; Bowlby, 1969), as described in the next section.

Attachment Research Extended to Other Developmental Periods

A basic theme in the attachment literature is the effect of the primary relationship between child and caregiver on the child's relationships throughout life. Although early work on attachment theory focused on the mother-infant bond to the exclusion of other attachments, more current research suggests that early attachments may shape future relationships in which attachment is a continuing component (Ainsworth, 1989; Bretherton, 1992; Kennell, Voos, & Klaus, 1979; Schneider, 1991). The relationship between attachment and developmental outcomes, which has been studied for children, has more recently become a concern for research on adolescents and adults. The consequences of attachment styles are important not only for

the individual in the present, but also for consequences in the future because of the continuity of attachment. Those children who are identified as securely attached and have successful relationships with early caregivers will learn through these positive experiences how to duplicate these successes later in life (Ainsworth, 1989; Bowlby, 1969, 1973, 1980). In contrast, insecurely attached individuals exhibit a low level of success in relationships that does not provide a positive reinforcing experience which can be translated into future successes; therefore future relationships become more problematic for these individuals.

Specifically, the question is what does secure attachment mean for adolescents in terms of behaviors and attitudes, and how will attachment affect the choices that people make throughout the developmental stages in their lives? These questions have been addressed theoretically, but the empirical evidence is still somewhat sketchy (Ainsworth, 1989; Bowlby, 1969, 1973, 1980; Steinberg, 1993). Attachment is believed to have an effect on the attitudes and behaviors of individuals. The more strongly attached one is to her or his parent(s) the more likely that person is to repeat the behaviors of the parent(s), or mirror the beliefs and attitudes of the parent(s), thus linking intergenerational behaviors to attachment (Knudson-Martin, 1992). It is also believed that the quality of the

relationship an individual has with her or his parent(s), identified as attachment style, will be recreated in each subsequent significant relationship (Ainsworth, 1989; Bowlby, 1969; Hazan & Shaver, 1987, 1990).

Bowlby (1973, 1980) writes about the experience of individuals in the areas of separation and loss, theorizing that adults experience separation and loss much the same way they experienced these as an infant or child. This theme has been extended by researchers such as Kubler-Ross (1969) in the study of terminally ill patients and the way they handled their impending deaths, as well as how the families of the terminally ill met this dilemma.

The literature on continuity of attachment remains largely theoretical due, in part, to the difficulty in conducting longitudinal studies. Empirical evidence for continuity would require measuring attachment styles in infancy, followed by assessment of attachment styles at other developmental periods in life. This longitudinal design would be ideal but is impractical due to the expense and sample attrition associated with longitudinal research. So researchers must devise other methods to assess attachment styles and continuity of attachment.

Studies in adult populations have attempted to show continuity in attachment styles from childhood through adulthood by using retrospective self-report data obtained

through questionnaires that examine the feelings of warmth and acceptance an individual felt as a child in his or her relationship to the parent. This retrospective recall is identified as attachment style, which is then compared to the attachment style exhibited in a current significant relationship (Hazan & Shaver, 1987, 1990).

Adolescent attachment research has not attempted to assess continuity in attachment styles; rather, this research has focused on adolescents' current feelings of warmth and personal regard toward parents, and assumes a degree of continuity (Armsden & Greenberg, 1987). The following section will provide a brief review of the literature on adolescent attachment.

Attachment in Adolescent Relationships

Attachment, often characterized by warm, positive regard, has been credited in the literature for influencing the behaviors and attitudes of adolescents (Steinberg, 1993). Adolescents who have a warm, positive regard for their parents have been shown to be more prone to behave in ways that will gain acceptance from their parents than those adolescents who have a relationship with their parents that is characterized as distant and less than positive (Steinberg, 1993).

Adolescents who have reported closeness to their parents scored higher on measures of psychosocial development, behavior competence, and other indicators of independence (Steinberg, 1993). Moreover, these findings are robust across SES and ethnicity (Steinberg, 1993). In general, families that show acceptance and rarely devalue, judge, or constrain the developing child are found to have adolescents who have more advanced psychosocial development, identity development and interpersonal skills. "Tolerance of disagreement and the discord that may ensue is apparently a key feature of parent-child interaction in families with psychosocially healthy adolescents" (Steinberg, 1993, p. 271). This again seems to be a pattern of parenting that creates securely attached children in the first place. Since this attachment process appears to be such a significant part of development, attachment to the caregiver would be indicative of attachment in other relationships such as adolescent dating relationships.

Although few studies focus on adolescent attachment, those that do support the notion of continuity of attachment and the suggestion that attachment is an important factor in adolescent behavior and attitudes (Foshee & Bauman, 1994; Kirkpatrick & Shaver, 1990; McCormick & Kennedy, 1994; Papini & Roggman, 1992; Steinberg, 1993; Walker & Thompson, 1984). One such study of 218 college students conducted by

McCormick and Kennedy (1994) investigated the relationship between attachment and self-esteem using Hazan and Shaver's 1987 Rocky Mountain Survey as well as Coopersmith's Self-Esteem Inventory and Epstein's Mother-Father-Peer Scale to evaluate the continuity of attachment relationships. The retrospective data obtained from this study supports Bowlby's theory of continuity over time of attachment, as well as the expected effect of attachment on self-esteem in this population.

An important study involving the development of the Inventory of Parent and Peer Attachment (IPPA) assessed both the perceived degree of connectedness of the college age adolescent to her or his parents while also measuring the adolescent's self-satisfaction, likelihood of seeking social support, and response to stressful life events (Armsden & Greenberg, 1987). The original measurement asked for general responses about parents as a unit, but was found to be inadequate, as respondents found it difficult to answer the items because their relationship with their mother and their relationship with their father could be qualitatively different. Therefore, in a later revision questions were posed about the quality of the relationship with the mother and the father separately.

This research is important for two reasons. First, before the development of the IPPA no standardized self-

report measure assessing adolescent relations with parents and peers using the conceptual framework of attachment theory existed, even though attachment theory is a rich heuristic device to examine intrapsychic functioning as well as interpersonal relationships (Armsden & Greenberg, 1987). Second, the work conducted by Armsden and Greenberg (1987) was important because it illustrated the congruence between adolescent's degree of closeness to parents and peers and the adolescent's self-satisfaction, help-seeking behavior, and type of response to stressful events. Such a relationship is important to recognize when attempting to understand the ways in which adolescents cope with both daily encounters as well as in difficult situations.

In a similar study, Papini and Roggman (1992) measured adolescents' attachment to their parents as they perceived it and found a strong relationship between adolescents' perceived attachment and expressed levels of competence, depression, and anxiety. In this one year longitudinal study of 12-year-old adolescents making the transition from sixth grade to junior high school, Papini and Roggman (1992) found that adolescents' attachment to their parents was highly correlated with the adolescents' measures of self-perceived competence, especially during the transition. This study supported findings by Armsden and Greenberg (1987) that suggest attachment to parents offers a buffering

effect for adolescents during times of stress and transition by supporting the hypothesis that adolescent attachment is most salient at times of transition.

In another study, Kirkpatrick and Shaver (1990) found that childhood attachment styles were highly correlated with the religious beliefs of older adolescents and young adults. Specifically, they found that individuals whose attachment styles were characterized as secure were more likely to have a religious experience and belief system which mirrored that of their parents. They also found that those whose attachment styles were characterized as anxious/ambivalent were more likely to have a conversion experience, and those who were characterized as avoidant were more likely to have few, if any, religious beliefs. One conclusion that can be drawn from this research is that attachment style is an important predictor of belief systems and behavior patterns (Kirkpatrick & Shaver, 1990).

Adding to this small body of research examining the relationship between attachment and specific behaviors, Foshee and Bauman (1994) used the Hirschi (1969) control theory model to examine the behaviors, attachment, and belief systems of adolescents. This study, funded by the National Cancer Institute, used a sample of 685 adolescents between the ages of 12 and 14 who had not smoked a cigarette prior to 1985 and who lived with both parents (biological or

surrogate) to investigate the factors that influence the adolescents' decision to smoke cigarettes. This study examined the adolescent's degree of closeness to their parents, and the effect this relationship might have had on the likelihood that the adolescent would have begun smoking by 1987. Although the researchers did not ascertain whether or not the parents smoked, they made the assumption that adolescent smoking is generally not accepted. This assumption led the researchers to discuss the possibility that adolescents who exhibited a higher degree of closeness to their parents would also be more likely to behave in ways that would please their parents. The researchers concluded that both adolescents' reported degree of closeness to parents and adolescents' belief in conventionality influenced their smoking behavior (Foshee & Bauman, 1994).

Working on the premise that attachment may be a direct cause in adolescent behavior or may be part of a constellation of causes identified as a 'social bond', Foshee and Bauman (1994) tested a direct effect model and a mediation model to study adolescent attachment and cigarette smoking. The researchers first measured attachment to parents by asking the subjects to identify how close they felt to their parents using a five-point Likert scale. Four elements of the social bond are "attachment to conventional people, commitment to conventional activities, involvement

in conventional activities, and belief in the conventional rules of society" (Foshee & Bauman, 1994, p. 89). These beliefs, attitudes, and behaviors were measured using a self-report questionnaire.

Adolescents' self-reported degree of closeness to parents was found to have a direct effect on adolescent smoking. They found support for Hirschi's (1969) control theory which states that adolescents with strong societal bonds, identified as conventional beliefs, are less likely to exhibit deviant behavior. That is, those adolescents who reported a higher degree of closeness to their parents were more likely to conform to conventional, generally accepted norms and expectations; whereas those adolescents who reported a lower degree of closeness to their parents exhibited behavior that was mediated by their beliefs and attitudes (Foshee & Bauman, 1994). Regardless of degree of closeness, adolescents with conventional beliefs were less likely to have begun smoking by 1987 than those individuals with less conventional beliefs.

Attachment in Adult Relationships

Attachment research with adult subjects suggests that attachment continues to be important in adulthood (Hazan & Shaver, 1987, 1990; Kirkpatrick & Shaver, 1990, 1992; Shaver & Hazan, 1987). Hazan and Shaver (1987, 1990) have measured

attachment styles in adult populations using questionnaires that assess warmth and feelings of security in current relationships as well as warmth and security in child-parent relationships through retrospective data. Hazan and Shaver (1987) reported the results of two studies that investigated the similarities between the three kinds of attachment found in infancy and that attachment experienced in adulthood. In addition to looking at love relationships and attachment, another purpose of these studies was to determine if individuals could accurately identify their attachment style by choosing a statement that would best describe their feelings about relationships.

In each of these studies, adults responded to a newspaper questionnaire in which they identified their own attachment styles by selecting one of three descriptive statements. These statements were:

Secure: I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about being abandoned or about someone getting too close to me.

Avoidant: I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.

Anxious-Ambivalent:

I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to merge completely with another person, and this desire sometimes scares people away. (Hazan & Shaver, 1987)

The hypothesis that people could accurately choose their attachment style was supported through the use of retrospective data concerning attachment styles and history of childhood relationships with caregivers. They found that attachment style was related to the internal working models of the adults in these studies as well as the experiences of those adults in childhood. They also found that these attachment styles predicted the different ways in which adults experience romantic love. Those who were identified as secure described their love experiences as more happy, friendly and trusting, and as enduring longer than those who were identified as anxious/ambivalent or avoidant (Hazan & Shaver, 1987). Avoidant, as well as anxious/ambivalent, individuals were characterized by emotional highs and lows and jealousy. And while avoidant lovers were found to have a fear of intimacy, anxious/ambivalent lovers were found to be obsessive and extreme in emotional and physical desire. Beliefs about love relationships varied in that secure lovers said that romantic feelings waxed and waned, but that in some relationships that romantic feeling never faded.

Although anxious/ambivalent lovers believed in romantic yet fleeting love, avoidant people did not believe in romantic love at all.

The second study conducted by Hazan and Shaver (1987) replicated the previous research, addressing the limitation of the self-selected newspaper sample by using a college sample of 108 undergraduates. The findings from this second study were highly similar to those in the first study. Their conclusion is that experiences in childhood shape the internal working model of individuals, explaining both childhood as well as adult attachment.

Research in Adolescent Sexuality

A review of studies on adolescent sexuality reveals the numerous aspects of this area that have been examined, including age at first coitus, number of partners, use of condoms and other forms of birth control, the effect of knowledge on sexual attitudes and behaviors, as well as gender differences in these areas. Correlates of sexual activity such as SES (Zabin, Astone, & Emerson, 1993) and family structure (Hansson, O'Connor, Jones, & Blocker, 1981; Jemmott & Jemmott, 1992; Mathis, 1976; Miller & Simon, 1974; Young, Jensen, Olsen, & Cundick, 1993) have also been examined. The findings from some of those studies will be briefly reviewed.

Family structure was identified as an important component of adolescents' decision making in a study of 200 black male adolescents, which found that adolescents who lived with both parents were more likely to use condoms regularly and were less likely to father a pregnancy than those who lived with only one parent (Jemmott & Jemmott, 1992). Maternal strictness was identified as a factor in lowered frequency of coitus, while paternal strictness positively affected the regular use of condoms (Jemmott & Jemmott, 1992). A more recent study of the effects of family structure on adolescent sexuality which controlled the variables of race, age, and gender had similar findings (Young et al., 1993).

A different type of research on the effect of family structure on adolescent sexual behavior investigated the role of maternal employment on attitudes and behaviors (Hansson et al., 1981). This retrospective study of 64 unmarried female college students found that having a mother who was employed outside the home during their children's junior high and high school years was an important factor in the decision making process regarding these adolescents' sexual behaviors (Hansson et al., 1981). Specifically, Hansson et al. (1981) found that adolescents whose mothers worked away from the home were less likely to delay sexual relations, have more concerns regarding pregnancy, and have

less practical knowledge about contraception. The assumption was that those mothers who were not as available to their children would be less effective in terms of discipline and influence on the decisions their children made. This research reflects much of the attitude of a culture that chooses to identify the primary caregiver, the mother, as critical to the child's well being, and helps set the stage for other research focused on family structure using the family deficit model.

In addition to family structure, cognitive ability has also been considered in the decision making process of adolescents. Holden, Nelson, Velasquez, and Ritchie (1993) examined the cognitive, psychosocial, and reported sexual behavior differences between pregnant and nonpregnant adolescents, finding the strongest differences in areas of scholastic functioning. Even so, this study, which compared 69 pregnant and 58 nonpregnant adolescents, demonstrated the multivariate and interrelated causes of adolescent pregnancy and sexuality (Holden et al., 1993). In essence, this research supports the notion that there is no one specific element that will determine adolescents' sexual attitudes and behaviors, thereby leading research to consider a broader range of predictor variables.

Gender differences in adolescent sexual behaviors have received considerable attention in the literature (see, for

example, Antonovsky, Shoham, Kavenaki, Lancet, & Modan, 1980; Sprecher, Barbee, & Schwartz, 1995). One of the most recent additions to this area of study examined the physical and emotional experience of adolescents' first sexual intercourse and the difference in responses between men and women (Sprecher et al., 1995). Although it is notable that women experienced first intercourse differently than men, the results of this survey do not add to our understanding of factors influencing the decision to initiate intercourse.

Another approach to understanding adolescent sexuality involves the study of risk-taking behavior. Small and Luster (1994) not only studied factors such as physical abuse, neighborhood monitoring, and adolescent attachment to school as instrumental in initiating sexual behavior, but also tested a cumulative risk factor model as a useful approach to predicting adolescent sexual activity. Using a 160 item self-report questionnaire developed from several existing surveys, they found that risk factors varied by gender, and that a greater number of risk factors increased the likelihood that adolescents would be sexually experienced (Small & Luster, 1994). Risk factors were identified on the individual, familial, and extrafamilial levels. While this study provided useful information in the area of adolescent risk-taking behavior, one risk factor that was not specifically addressed was that of level or

style of attachment to parents, even though relationships and parental support were identified as indicators of risk-taking behaviors. Once again, a need for further investigation of the influence of attachment on adolescent behavior is indicated.

In another study of risk-taking sexual behavior, Johnson and Green (1993) surveyed 60 sexually active, unmarried adolescent females, and found that in addition to age, grade, and ethnic status, cognitive capacity and cognitive egocentrism were significant factors in decision making regarding sexual activity. This follows the developmental model that as adolescents mature, they will also develop and function at a higher cognitive level thereby influencing the decision making process (Johnson & Green, 1993). While this study reinforces the findings of Holden et al. (1993) regarding the multivariate nature of adolescent sexuality, it disregards the notion of intergenerational continuity that is an integral component of the developmental process and attachment (Knudson-Martin, 1992).

Furthermore, although it is often believed that knowledge is an effective tool against risk-taking behavior, this is not necessarily so. In a study of 119 adolescents incarcerated in a juvenile facility in Seattle, Washington, sexual risk taking was characterized by having a high number

of partners, unprotected vaginal and anal sex, and having sex with known or suspected drug users (Morrison, Baker & Gillmore, 1994). Even though this group of adolescents had a high level of awareness of the risks involved in their sexual behavior, this knowledge was found to have little effect on that behavior, suggesting that programs designed to increase knowledge alone would be largely ineffective at decreasing risk-taking behavior (Morrison et al., 1994).

In another study which examined beliefs and knowledge, Roche and Ramsbey (1993) asked respondents in a 1988 survey to describe what they considered proper sexual behavior, what they did, and what they thought others were doing. They then compared the results of this survey to a similar 1983 survey, and found that, although attitudes had changed somewhat due to awareness of AIDS, reported sexual behavior had changed little over this five-year period. This cross-sectional study measured change and continuity of sexual behavior, focusing on the respondents' beliefs; however, no explanation for this continuity of behaviors in the face of changing attitudes was examined.

Other research also has failed to find a relationship between AIDS awareness and religious beliefs and sexual behavior (Cullari & Mikus, 1990). Studying 116 Catholic and 92 public high school students, Cullari and Mikus (1990) found no significant correlation between AIDS knowledge and

sexual activity in adolescents; rather, students identified factors such as curiosity, need for love, and peer pressure as instrumental in sexual experimentation even though fear of pregnancy and sexually transmitted diseases were considered deterrents. Of those three factors identified in the adolescents' decision making process, the two concerning a need for love and peer pressure have a common thread that can be characterized as elements of attachment.

Similar results were noted in a study of unmarried college students which found that knowledge of sexual risk-taking practices had less to do with decision making than "...societally reinforced romanticization of sexuality..." (Sorell, Martin, Bell, & Peek, 1991, p.13). Again, the notion that these types of decisions come from internalized belief systems, which may be influenced by social structures, suggests that attachment to caregivers and others who hold primary positions in one's life could be an important and pivotal factor in behaviors and attitudes of adolescents.

Addressing one aspect of this issue, adolescent sexual behavior has been examined in relationship to peer influence (Billy, Rodgers, & Udry, 1984; Billy & Udry, 1985). In a study of junior high school students, adolescent females were found to name friends whose sexual behavior was similar to their own, while sexual behavior did not factor into

adolescent male friendship structure (Billy et al., 1984). This study revealed gender differences in selection of friendships based on sexual behavior; however, it gave no information on what factors influenced the reported sexual behaviors.

In another study revealing gender differences in adolescents' sexual attitudes and behaviors, Chara and Kuennen (1994) conducted a longitudinal study of two separate cohorts describing attitudes toward casual sex, and found that males measured at time one were less tolerant of casual sex than an older group of males measured at time two, whereas females measured at both time one and at time two were consistently opposed to casual sex. Several other studies of attitudes toward casual sex report the same type of findings (e.g., Herold & Mewhinney, 1993; Roche & Ramsbey, 1993; Wilson & Medora, 1990). Although this is valuable information in understanding what the adolescent does regarding sexuality, it still does not fully describe why the adolescent behaves the way he or she does.

In studies that examine causal factors of adolescent behaviors and attitudes, more comprehensive information is revealed. In one such study, sexuality is conceptualized as romantic love and a more qualitative understanding of adolescent-partner relationships begins to unfold. Cimbalo and Novell (1993) conducted a study of college students,

examining romantic love which included measures of traditional behaviors, routine activities, and religion, contrasted with the dimensions of sexual behavior, aberrant sex and drugs. Findings of this study supported the notion of a 'double standard' in attitudes, with women endorsing the former dimensions and men leaning toward the latter as expressions of romantic love (Cimbalo & Novell, 1993). This research, which shows significant gender differences in the conceptualization of romantic love and how that love is expressed, indicates the need to examine the origin of one's ideas about love and its expression, notions that may well be more clearly understood through the lens of attachment theory.

Research that focused on the importance of relationships in determining sexual attitudes examined love styles in college students, confirming the importance of friendship, closeness, and warmth in romantic relationships (Hendrick & Hendrick, 1993). This study used the Sexual Attitudes Scale which measures the dimensions of permissiveness, sex practices, communion, and instrumentality in sexual relationships. The qualities of warmth and closeness that were identified as critical to the love styles in this population are also characteristics which are associated with attachment styles, reinforcing the

notion that attachment styles are important to the attitudes and behaviors of adolescents.

One study which focused on adolescent relationships surveyed over 300 adolescents and found "striking resemblances between adolescent and adult relationships in terms of the contributions of commitment, communication, companionship, and passion" (Levesque, 1993, p. 219). In addition to these similarities, significant differences in adolescent and adult relationships were also found, including the adolescents' lack of connection between negative affect, conflict or trouble, and relationship satisfaction. Relationship satisfaction for adults, however, was contraindicated in the presence of negative affect, conflict or trouble (Levesque, 1993). Because relationship satisfaction was described in terms which are remarkably similar to those used to describe characteristics of attachment, it provides a foundation for further research in this area.

Another study investigating romantic love in adolescent females (Simon, Eder, & Evans, 1992) found that the middle-school girls in the sample used cultural norms to develop their ideas of romantic love and used their feelings about these ideas to respond to their concerns about romance. Where they learned these cultural norms is left only to the reader's imagination, but attachment theory addresses this

issue in that the attachment figure, that is the caregiver, is so important to the individual that one's cultural norms are constructed around the values of the attachment figure (Bowlby, 1969).

One of the problems in studying adolescent sexuality in a high-school population is illustrated by a three-year longitudinal study to determine the reliability of adolescents' self-report of sexual behavior (Alexander, Somerfield, Ensminger, Johnson, & Kim, 1993). Overall inconsistency was shown in reporting the number of sexual partners one had been engaged with, as well as age at first sexual intercourse. This group of researchers suggested offering vigorous assurance of confidentiality and anonymity to elicit honest responses (Alexander et al., 1993).

Another way of addressing the adolescent population is with a college sample (e.g., Hendrick & Hendrick, 1987; Sorell et al., 1991). Using a college age population may address the problems described in the Alexander et al. (1993) study which suggested that inconsistencies in self-reporting may have come from a desire for social acceptance. These authors suggest that a more mature adolescent population might be less affected by social desirability. Additionally, the sample for the present study will be

assured of confidentiality and anonymity, thus raising the likelihood of honest responses.

Conclusion and Hypotheses

From this body of research we know something about the individual factors that influence adolescents' sexual decisions, and how those decisions are influenced by social expectations. Furthermore, we have some insight into the extent to which knowledge about sexuality and associated risk-taking behaviors affect sexual behavior and decision making. And yet, there is much we still do not know. For instance, the role of attachment in the decision making process used by adolescents is not yet understood. Much effort has been invested in descriptive, quantitative studies of adolescent sexuality, but often the emotional aspect of adolescent sexuality has been lost; therefore, it is time to address the emotional issues in sex education as well as the physical issues (Shaughnessy & Shakesby, 1992). Even though several influences on adolescent decision making that have previously been studied are related to the concept of attachment, attachment theory has not been directly addressed; therefore, attachment theory may add to our understanding of adolescent sexual attitudes and behaviors.

In one of the few studies that has looked at the effect of attachment on adolescent behavior through a direct model

and a mediation model, Foshee and Bauman (1994) found that degree of closeness to parents both directly and indirectly influenced adolescent smoking behavior. Foshee and Bauman (1994) did not report on parents' smoking habits, but worked on the assumption that smoking is not generally accepted behavior for adolescents, so we do not know what effect this parental behavior had on adolescent behavior. However, their findings supported their hypothesis that adolescents who reported a lower degree of closeness to their parents were more likely to begin smoking than those adolescents who reported a higher degree of closeness to their parents. They also found that the relationship between reported degree of closeness to parents and adolescent smoking behavior was mediated by adolescent belief systems.

Hypotheses and Analysis Strategy

This study will utilize ANOVAs and regression analyses to examine the effect that attachment has on adolescents' sexual behavior, and will add to our understanding of the factors that influence adolescent sexuality. The first set of hypotheses will examine the relationship between the security of attachment and various aspects of the adolescent's sexual behavior. Security of attachment will be assessed using the Hazan and Shaver (1987) measure.

Hypothesis 1: Individuals who are securely attached will initiate coitus later than individuals who are insecurely attached.

Hypothesis 2: Individuals who are securely attached will have had fewer partners than individuals who are insecurely attached.

Hypothesis 3: Securely attached individuals will report greater satisfaction with their sexual experiences than insecurely attached individuals.

Because the relationship between attachment quality and behavior may be different for males and females, the test of these hypotheses will use three ANOVAs, one for each of the adolescent outcome measures as the dependent variables (or a MANOVA, if appropriate). In these ANOVAs, security of attachment and gender of the adolescent will be the between-subject factors. An interaction term (attachment by gender) will also be included in the model.

Because insecurely attached individuals may be characterized as either anxious/ambivalent or avoidant, this distinction may manifest in different behavior. Hazan and Shaver (1987) found that anxious-ambivalent individuals have a need to merge with another, and have concerns about the continuation of their relationships, whereas avoidant individuals avoid close relationships. The second set of hypotheses will test the difference between secure,

anxious/ambivalent, and avoidant adolescents on the outcome measures.

Hypothesis 4: Anxious-ambivalent individuals will have initiated intercourse earlier than avoidant and secure individuals.

Hypothesis 5: Anxious-ambivalent individuals will have had more partners than avoidant and secure individuals.

Hypothesis 6: Anxious-ambivalent will report less sexual satisfaction than avoidant and secure individuals.

Although anxious-ambivalent individuals are expected to follow these patterns, the ordering of the avoidant and secure groups is not clear, however these groups are not expected to differ significantly. Three ANOVAs (one for each of the dependent variables) or one MANOVA, if appropriate, will be conducted. Again, security of attachment and the adolescent's gender will be the independent variables. An interaction term will be included in each of these models as well.

The third and fourth sets of hypotheses will examine whether permissive attitudes moderate the effect of attachment on adolescent sexual behavior. Attachment in adolescents and adults has been operationalized in different ways. The measure of adult attachment which was developed by Hazan and Shaver (1987) and which has been widely used in adult attachment research measures attachment categorically.

In the following set of three hypotheses, attachment again will be measured as a categorical variable using the Hazan and Shaver (1987) measure. Permissive attitudes toward sexuality will be measured using the permissiveness scale from the Sexual Attitudes Scale developed by Hendrick and Hendrick (1987). The analyses will use ANOVAs with attachment and permissive attitudes as the independent variables. An interaction term (attachment by permissiveness) will also be included in each of these models. A significant interaction is expected for each of these hypotheses.

Hypothesis 7: For individuals with a secure style of attachment, permissive sexual attitudes will not affect age at first coitus, but for individuals with insecure styles of attachment, permissive sexual attitudes will moderate the behavior so that insecurely attached individuals who have less permissive attitudes will have initiated coitus at a later age than insecurely attached individuals who have more permissive attitudes.

Hypothesis 8: For individuals with a secure style of attachment, permissive sexual attitudes will not affect number of partners, but for individuals with insecure styles of attachment, permissive sexual attitudes will moderate the behavior so that individuals with insecure styles of attachment who have less permissive attitudes will report

having had fewer partners than individuals with insecure styles of attachment who have more permissive attitudes.

Hypothesis 9: For individuals with a secure style of attachment, permissive sexual attitudes will not affect level of satisfaction with sexual experience, but for individuals with insecure styles of attachment, permissive sexual attitudes will moderate the behavior so that individuals with insecure styles of attachment who have less permissive attitudes will report greater satisfaction than individuals with insecure styles of attachment who have more permissive attitudes.

Another approach to operationalizing attachment is to use a continuous measure of degree of closeness in significant relationships, as the IPPA does. Because attachment has not been used in research on sexual behavior, it was not initially clear whether using a categorical or a continuous measure would be more fruitful. Therefore, in addition to the categorical measure used for Hypothesis 7, 8, and 9, Hypotheses 10, 11, and 12 used the IPPA. In order to distinguish these measures, the IPPA continuous measure will be referred to as degree of closeness, or level of connectedness, to mothers or to fathers, and the Hazan and Shaver (1987) categorical measure will be referred to as style of attachment.

The fourth set of hypotheses will also examine whether permissiveness moderates the effect of attachment on adolescent sexual behavior. For these hypotheses attachment will be conceptualized as degree of closeness to mothers and/or fathers. Because attitudes have been found to influence decision-making (Foshee & Bauman, 1994), it is expected that the behavior of individuals will be influenced by these attitudes when there is a lesser degree of closeness to one's mother and/or father. For these analyses attachment will be measured as degree of closeness to mothers and to fathers using the Inventory of Parent-Peer Attachment scale (the mother and father sections of the Mother, Father, Peer version) developed by Armsden and Greenberg (1987) and by Armsden, McCauley, Greenberg, Burke, and Mitchell (1991). Permissive attitudes toward sexuality will again be measured using the permissiveness scale from the Sexual Attitudes Scale (Hendrick & Hendrick, 1987).

Hypothesis 10: It is hypothesized that permissive attitudes will moderate the relationship between degree of closeness to mothers and/or fathers and age at first coitus, so that individuals who are less close to their mothers and/or fathers will be younger at first coitus.

Hypothesis 11: It is hypothesized that permissive attitudes will moderate the relationship between degree of

closeness to mothers and/or fathers and number of sexual partners, so that individuals who are less close to their mothers and/or fathers will have a greater number of partners.

Hypothesis 12: It is hypothesized that permissive attitudes will moderate the relationship between degree of closeness to mothers and/or fathers and level of satisfaction, so that individuals who are less close to their mothers and/or fathers will have a lower level of satisfaction in their sexual relationships.

These hypotheses will be tested using a two-step regression procedure. Separate models will be run for each of the dependent variables (age at first coitus, number of partners, and satisfaction). In the first step, the dependent variable will be regressed on attachment and permissiveness. If a significant interaction for sexually permissive attitudes is found in the first step, the second step will remove permissiveness from the model and examine the main effect for closeness on the dependent variables. This second step will split the variable permissiveness into high and low groups using a median split, and then run the model for each of these groups separately.

CHAPTER III

METHOD

Sample

This study focused on the self-reported degree of closeness to parents, and on the attachment styles identified by late adolescents, as well as attitudes toward sexuality, and how these constructs may affect their sexual behavior and satisfaction, using a sample of 570 undergraduate students from Texas Tech University.

Students registered in Human Development and Family Studies courses in the College of Human Sciences were surveyed ($n = 640$). From this group a sample of 570 respondents within the age range of 18-25 was obtained. Sample characteristics are presented in Table 3.1. Cases with missing data were omitted, creating the different totals in some categories. This largely homogeneous sample was 86.0% Caucasian, 2.5% African-American, 7.7% Hispanic, 1.2% mixed heritage, and 2.6% other. Of this sample, 95.6% reported having a Christian belief system. There were 442 (77.5%) adolescent women and 128 adolescent men (22.5%) in this sample. The mean age of adolescent women in the sample was 20.24 years, and the mean age of adolescent men in the sample was 20.94 years. Males and females did not differ by

TABLE 3.1

Sample Characteristics ($N = 570$)^a

Variables	N	%	M	SD
Gender				
Female	442	77.49		
Male	128	22.51		
Age				
Females	439		20.24	1.58
Males	127		20.94	1.78
Race				
Caucasian	489	86.01		
African American	14	2.52		
Hispanic	44	7.68		
Other	22	3.79		
Religion				
Protestant	224	39.87		
Catholic	122	21.74		
Non-denominational Christian	191	34.03		
Eastern/Middle Eastern	16	2.79		
Atheist/Agnostic	9	1.57		
Relationship Status				
Not currently in relationship	153	26.89		
Partnered and cohabitating	76	13.41		
Partnered in exclusive relationship	243	42.92		
Dating casually	95	16.78		

^a Age has four missing cases, Race has one missing case, Religion has eight missing cases, and Relationship Status has three missing cases.

ethnicity (X^2 (4, N = 569) = p = .08); however, males and females did differ by age with males being significantly older (male mean = 20.94; female mean = 20.24) (t (566) = -4.24, p < .0001). In this sample, 139 (24.9%) individuals reported that as of the time of the survey they had not yet initiated coitus. These cases were eliminated from the analyses, and the remaining 430 cases who reported that coitus had already been initiated were used for the analyses which tested the hypotheses. Of these cases, 98.4% reported that they were heterosexual. Two cases reported that they were gay, or homosexual, four cases reported that they were bisexual, and three cases reported that their sexual orientation was unknown. Because this was a study about attachment and sexual behavior, it was decided that these cases should be retained.

Measures

The survey consists of six parts, assessing attachment style, degree of closeness the respondent has to her or his parent(s), attitudes toward sexual permissiveness, the reported sexual behavior of the individual, the level of satisfaction the respondent has with her or his sexual

experience, and demographic information. The complete text of the survey appears in Appendix A.

Attachment style

To measure style of attachment, this study used the three statements developed by Hazan and Shaver (1987). Subjects selected the statement which was most descriptive of their relationship style. This well known instrument was assessed by Hendrick and Hendrick (1989) along with four other measures of love. The measures included in the assessment by Hendrick and Hendrick (1989) were the Love Attitudes Scale developed by Hendrick and Hendrick, Sternberg's Triangular Theory of Love Scale, the Passionate Love Scale, and the Relationship Rating Form. The sample in their study had a distribution across attachment styles similar to what has been found in other studies (e.g. Kirkpatrick & Shaver, 1990, 1992; Shaver & Hazan, 1987) that have used the Hazan and Shaver three item forced-choice measure of attachment (Hendrick & Hendrick, 1989). The consistency of these findings support the reliability of the Hazan and Shaver measure of attachment styles.

Inventory of Parent-Peer Attachment

Degree of current closeness to mothers and to fathers was assessed using the mother and father sections of the

Inventory of Parent-Peer Attachment (IPPA) (Mother, Father, and Peer Version) (Armsden & Greenberg, 1987; Armsden et al., 1991). The respondents were asked to think about their relationship with their mother and their father (or a person who acts in either of those roles). If the respondents were unable to identify anyone who functioned in either of these roles, they were instructed to continue on to the next section. These sections of the IPPA assess degree of closeness by measuring the warmth and responsiveness in the parent-adolescent relationship.

The IPPA consists of three subscales: trust, communication, and alienation. Armsden and Greenberg (1987) report alpha coefficients for these subscales. The trust subscale had an alpha of .91, the communication subscale had an alpha of .91, and the alienation subscale had an alpha of .86. Additionally, the three-week test-retest reliability for the overall scale was .93. They also report good convergent validity with growth-promoting family characteristics as assessed by the Family Environment Scale, a positive relationship to the Tennessee Self-Concept Scale, and moderate correlation with utilization of parents as sources of support in times of stress.

The present study found alpha coefficients for the three subscales similar to those reported by Armsden and Greenberg (1987). The alpha coefficients for the subscales

for mother were .91 for trust, .91 for communication, and .82 for alienation, with an alpha coefficient for the overall scale of closeness to mother of .95. The alpha coefficients for the subscales for father were .93 for trust, .94 for communication, and .85 for alienation, with an alpha coefficient of .97 for the overall scale for closeness to father. For analyses using this measure, this scale was reverse scored so that a high score indicated a high level of reported closeness to their parent(s), and a low score indicated a low level of closeness.

Sexual Attitudes Scale

Attitudes toward sexuality were measured using the Sexual Attitude Scale developed by Hendrick and Hendrick (1987), who described this measure as a non-exploitive instrument designed for use with college populations, which is concerned with relationships and has been demonstrated to be "theoretically consistent and statistically solid" (p.512). Although this scale measures four different constructs, only the permissiveness scale was used for this study because it is most appropriate for the questions posed by this research. An alpha coefficient of .94 and a four week test-retest reliability of .88 have been reported for this subscale (Hendrick & Hendrick, 1987; Touliatos, Perlmutter, & Straus, 1990). The permissiveness scale had

an alpha coefficient of .87 for the present sample. This scale was reverse scored so that a high score indicated a high level of sexually permissive attitudes, and a low score indicated a low level of sexually permissive attitudes.

Sexual behavior, satisfaction, and demographics

Sexual behavior, satisfaction, and demographic information were assessed by questions developed for the purpose of this study. Questions regarding age at first coitus and number of sexual partners respondents reported to have had in their lifetime were open-ended so this information would capture the full range of the respondents' experiences. Satisfaction was measured by a single item question in which respondents described their level of satisfaction with their sexual experiences on a five point scale ranging from never true to always true, in response to the statement "Overall, I am satisfied with my sexual experience(s)." Demographic information included age, gender, race, marital status, and religious affiliation.

CHAPTER IV

RESULTS

Sample Characteristics

Attachment Style

The distribution of attachment styles in the overall sample ($n = 570$) was similar to that reported by Hazan and Shaver (1987). Hazan and Shaver reported 56% of their newspaper sample self-reported a secure attachment style, 19% an anxious/ambivalent attachment style, and 25% an avoidant attachment style. Hazan and Shaver also reported that in their college sample 56% self-reported a secure attachment style, 20% an anxious/ambivalent attachment style, and 24% an avoidant attachment style. The current research found 64.70% ($n = 369$) of the sample identified themselves as having a secure attachment style, 26.70% ($n = 152$) of the sample identified themselves as having an anxious/ambivalent style, and 8.40% ($n = 48$) of the sample identified themselves as having an avoidant style. One case had missing data for attachment style. The reason for differences in these samples are undetermined, but might be explained by differences in sample populations.

Sexual Behavior

In this sample, 138 (24.70%) respondents said they were virgins, while the balance ($n = 432$, 75.30%) said they had already initiated coitus. Because three individuals reported they had initiated coitus but also reported having had no partners, these cases were dropped from the analyses; therefore, the group that reported having initiated coitus had a total of 429 cases. Chi-square analysis showed that male and female virgins differed significantly by attachment style ($X^2(2, n = 138) = 8.08, p < .05$). Although there was little difference in the percentage of males (72.73%) and females (68.10%) who identified themselves as secure, the differences in male and female virgins who identified themselves as either anxious/ambivalent or avoidant was striking. Although 23.19% of female virgins identified themselves as anxious-ambivalent, only 9.09% of male virgins placed themselves in this category. Conversely, only 4.31% of the female virgins identified themselves as avoidant, but 18.18% of male virgins placed themselves in this category. Analysis of non-virgins did not show a significant difference ($X^2(2, n = 429) = .09, p = .96$). The distribution of attachment style by virgin status is presented in Table 4.1.

TABLE 4.1

Distribution of Attachment Style by Virgin Status ($n = 567$)^a

Gender/ Attachment Style	Virgins		Non-Virgins	
	n	%	n	%
Females				
Secure	79	68.10	204	63.16
Anxious/Ambivalent	32	27.59	90	27.86
Avoidant	5	4.31	29	8.98
Subtotal	116	100.00	323	100.00
Males				
Secure	16	72.73	68	64.15
Anxious/Ambivalent	2	9.09	28	26.42
Avoidant	4	18.18	10	9.43
Subtotal	22	100.00	106	100.00
Total	138		429	

^aThree cases were missing for the variable of virgin status.

The means and standard deviations of the other independent and dependent variables are presented in Table 4.2.

Although only those respondents who had already initiated coitus were examined for the purpose of testing the hypotheses, it is interesting to note the differences in this group from the group that had not yet initiated coitus. The mean level of closeness to mothers was significantly lower for virgins than for non-virgins ($t(567) = 2.10, p <$

TABLE 4.2

Means and Standard Deviations

Variables	Virgins (<u>n</u> = 138)		Non-Virgins (<u>n</u> = 429)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Closeness to Mother*	106.79	17.55	103.49	17.26
Closeness to Father	93.09	19.88	90.95	20.86
Level of Permissiveness****	1.61	0.32	1.91	0.53
Age at Initiation	--	--	16.67	1.88
Number of Partners	--	--	4.73	6.34
Level of Satisfaction	3.80	1.38	3.65	1.29

*p < .05, ****p < .0001

.05). The degree of closeness to father, however, did not differ significantly between virgins and non-virgins. The difference in mean level of sexual permissiveness was highly significant, with virgins measuring lower in permissive attitudes than non-virgins ($t(555) = .93, p < .0001$). Non-virgins reported a mean age at initiation of 16.67 (SD = 1.88) and having an average of 4.73 partners (SD = 6.34). Number of partners ranged from 1 to 52. Because of the

wide range in the number of partners and the presence of some extreme outliers which might affect the results of the test of the hypotheses, two different procedures were conducted to examine the effect of the outliers on the analyses. First, a Z-score transform was performed on the variables. Second, a "cropping" procedure was used in which the upper 10% and the lowest 10% were dropped from the analyses. Neither of these manipulations changed the substantive conclusion of the tests of the hypotheses. Therefore, all cases were retained to represent the full range of responses of this sample. Comparison of mean level of satisfaction with sexual experiences found virgins did not differ significantly from non-virgins ($t(531) = -.93$, $p = .36$). Virgins were then removed from the sample for further analyses.

So that it could be determined if doing MANOVAs was necessary, the independent variables were examined to ascertain how significantly these variables were interrelated. Pearson correlations found a significant negative relationship between age at initiation of sexual intercourse and the reported number of partners ($r = -0.42$, $p < .0001$). Correlational analysis also revealed a positive but non-significant relationship between age at initiation of sexual intercourse and the reported level of satisfaction

with sexual experiences ($\underline{r} = .05$, $\underline{p} = .33$). There was virtually no relationship between the number of partners individuals reported having had and the level of satisfaction they reported having in their sexual relationships ($\underline{r} = -.03$, $\underline{p} = .59$).

Even though the relationship between the variables age at initiation and number of partners were significant, the correlations between the other dependent variables were low, so a MANOVA was not deemed necessary, and ANOVA procedures were used.

Hypotheses

Analyses of a Dichotomous Measure of Attachment

Hypothesis 1: The first analysis examined the effects of attachment and gender on the age of initiation of sexual intercourse. The three attachment styles described by Hazan and Shaver (1987) were collapsed into two categories to represent secure and insecure attachment styles. The anxious/ambivalent and avoidant attachment styles were combined into one group to represent insecure attachment.

In this ANOVA, attachment style and gender of the respondent were the independent variables in the model, and age of initiation was the dependent variable. An interaction term was also used. The overall model was

significant ($F(3, 415) = 4.14, p < .01$). Neither the interaction term ($F(1, 415) = .82, p = .36$), nor the main effect for attachment style ($F(1, 415) = .20, p = .65$) was significant. However, the main effect for gender was significant ($F(1, 415) = 11.40, p < .001$). Because Scheffe's test of mean comparisons controls alpha, this test was used to examine the between group differences. The age of initiation for females (16.85 years) was significantly higher ($p < .05$) than the age of initiation for males (16.14 years). Hypothesis 1 (securely attached individuals will initiate coitus later than insecurely attached individuals) was not supported.

Hypothesis 2: The second analysis examined the effect of attachment style and gender on the number of sexual partners individuals reported. In this second ANOVA, the two-level measure of attachment style, gender of the respondent, and an interaction term were the independent variables, and number of partners was the dependent variable. The overall model was significant ($F(3, 413) = 6.50, p < .001$). Again neither the interaction term ($F(1, 413) = 1.63, p = .20$) nor the main effect for attachment style ($F(1, 413) = .64, p = .43$) was significant. However, the main effect for gender was highly significant ($F(1, 413)$

= 17.24, $p < .0001$). Scheffe's test of mean comparisons was significant at the .05 level, with the mean number of partners reported by females (4.01) significantly lower than the mean number of partners reported by males (6.94). The second hypothesis (securely attached individuals will have fewer partners than insecurely attached individuals) was not supported.

Hypothesis 3: The third analysis examined the effect of secure and insecure attachment and gender on the level of satisfaction individuals reported with their sexual experiences. The overall model was not significant ($F(3, 416) = .61, p = .61$), so the univariate results were not examined. The third hypothesis (securely attached individuals will report greater satisfaction with their sexual experiences than insecurely attached individuals) was not supported.

Analyses of a Trichotomous Measure of Attachment

The next set of hypotheses retained the three category classification scheme of attachment style originally used by Hazan and Shaver (1987). Again, attachment style (this time measured as a three level variable) and the gender of the respondent were the independent variables in the models, and age of initiation, number of partners, and satisfaction were

the dependent variables in the separate ANOVAs. Each model also had an attachment style by gender interaction term.

Hypothesis 4: The fourth analysis examined the effect that secure, anxious/ambivalent, and avoidant attachment styles had on age at initiation of sexual intercourse. In this ANOVA, attachment style, gender of the respondent, and an interaction term were the independent variables in the model, and age of initiation was the dependent variable. The overall model was significant ($F(5, 413) = 2.68, p < .05$), but neither the interaction term ($F(2, 413) = .40, p = .67$), nor the main effect for attachment style ($F(2, 413) = .66, p = .52$) was significant. However, the main effect for gender was again significant ($F(1, 413) = 11.28, p < .001$). As in the analysis of the first hypothesis, Scheffe's test of mean comparisons detected a significant difference at the .05 level in the mean age of initiation between females and males (female mean = 16.85, male mean = 16.14). Even so, this analysis failed to support Hypothesis 4.

Hypothesis 5: The fifth analysis examined the effect that the three attachment styles had on the number of partners individuals reported. Attachment style and the gender of the respondent were the independent variables in this model, and number of partners was the dependent variable. The model also included an interaction term. Once

again, the overall model was significant ($F(5, 411) = 4.24$, $p < .001$), but as before, neither the interaction term ($F(2, 411) = 1.56$, $p = .21$), nor the main effect for attachment style ($F(2, 411) = .42$, $p = .66$) was significant. However, the main effect for gender was significant ($F(1, 411) = 17.26$, $p < .0001$). Scheffe's test of mean comparisons was again significant at the .05 level. The mean number of partners respondents reported to have had was significantly lower for females (4.01) than for males (6.94). This analysis failed to support Hypothesis 5.

Hypothesis 6: The sixth analysis examined the effect of attachment style, gender, and an interaction term on the level of satisfaction individuals reported with their sexual experiences. The overall model was not significant ($F(5, 414) = .83$, $p = .53$), therefore the univariate results were not examined. Hypothesis 6 was not supported.

Analyses of Variance Examining Attachment and Permissiveness

The third set of hypotheses examined the three styles of attachment described by Hazan and Shaver (1987), as well as the effect of permissive attitudes toward sexuality on sexual behavior and attitudes. Three styles of attachment are used in the analyses because they are more descriptive

than a dichotomy of secure and insecure attachment styles. Attachment style, the measure of permissiveness, and an interaction term were used in the models, and age of initiation, number of partners, and satisfaction were the dependent variables in the separate ANOVAs. The median value on the permissiveness scale was used to create two groups (high sexual permissiveness and low sexual permissiveness).

Hypothesis 7: The seventh analysis examined the effect of style of attachment and the level of permissiveness on age of initiation of sexual intercourse. In this ANOVA, attachment style and level of sexual permissiveness were the independent variables, and age of initiation was the dependent variable. An interaction term was also used. The overall model was significant ($F(5, 413) = 5.50, p < .0001$); however, neither the interaction term nor the main effect for style of attachment were significant ($F(1, 413) = .16, p = .86$, and $F(2, 413) = .68, p = .51$, respectively). Conversely, the main effect for permissive attitudes toward sexuality was highly significant ($F(1, 413) = 25.81, p < .0001$). Scheffe's test of mean comparisons showed the mean age of initiation of sexual intercourse was 17.22 years for individuals with less sexually permissive attitudes, and the mean age of initiation of sexual intercourse was

significantly lower (16.28 years) for individuals with more sexually permissive attitudes. Hypothesis 7 is partially supported by this analysis.

Hypothesis 8: The eighth analysis examined the effect of style of attachment, the level of permissiveness, and an interaction term on number of partners reported by respondents. As before, the overall model was significant ($F(5, 411) = 6.17, p < .0001$). Even though the interaction term ($F(2, 411) = .59, p = .56$) and the main effect for style of attachment ($F(2, 411) = .43, p = .65$) were not significant, the main effect for permissive attitudes was significant ($F(1, 411) = 28.80, p < .0001$). Scheffe's test of mean comparisons again showed a significant difference in the number of partners respondents reported by level of sexually permissiveness attitudes. Individuals with less sexually permissive attitudes had significantly fewer partners ($M = 2.83$) than individuals with more sexually permissive attitudes ($M = 6.11$). Hypothesis 8 was partially supported by these analyses.

Hypothesis 9: The ninth analysis examined the effect of style of attachment, the level of permissiveness, and the interaction term on level of satisfaction with sexual experiences individuals reported. The overall model was not significant ($F(5, 414) = .73, p = .59$), therefore the

univariate results were not examined. This analysis failed to support Hypothesis 9.

Regression Analyses Examining Closeness and Permissiveness

The final set of hypotheses also looked at the effect of attachment and permissiveness, but Hypotheses 1 to 10 examined style of attachment as a categorical measure. This final set of analyses used continuous measures of closeness to mothers and to fathers (IPPA) and of sexually permissive attitudes. These analyses were able to examine the effect of closeness to mothers and closeness to fathers separately because, unlike the Hazan and Shaver (1987) categorical measure, the IPPA measures the current relationship to each parent separately. The independent variables were entered into separate regression analyses to estimate each of the three dependent variables.

In these models, the IPPA was used as a continuous measure of closeness to mother or to father, and the scores on the measure of permissiveness were retained as a continuous measure. Using a general linear model, the independent variables were regressed on the age of initiation of first coitus, the number of partners reported, and the level of satisfaction respondents reported to have with their sexual experiences. If these analysis were found

significant, a second step removed permissiveness from the model by using a median split of the cases by level of sexually permissive attitudes to examine the effect of closeness to mothers and to fathers on the outcome variables.

Hypothesis 10: The tenth analysis examined the relationship of the level of closeness to mothers and to fathers on the age of initiation of first coitus in two separate regression models. The results of these analyses are presented in Table 4.3. The overall model of closeness to mothers was significant ($F(3, 415) = 18.93, p < .0001$). Because the interaction term was significant, a second regression was run using a median split to control for level of sexually permissive attitudes. In this second regression, the effect of attachment to mothers on age of initiation of coitus was examined in separate models for respondents with high and low levels of permissive attitudes. The overall model in the second regression step which examined the most sexually permissive individuals was not significant ($F(1, 262) = 2.81, p = .10$), indicating no effect for closeness to mothers on age of initiation in this group. Analysis of the least sexually permissive individuals found no significant effect for closeness to parents on age of initiation ($F(1, 153) = .33, p = .57$).

TABLE 4.3

Regression Model Predicting Age of Initiation of Coitus

Mothers						
Variables	β	<u>B</u>	MS	<u>F</u>	<u>p</u>	
Step-one Regression ^a						
Closeness						
1, 416	-.07	-0.01	7.36	2.31	.13	
Permissiveness						
1, 416	-.33	-1.17	156.57	49.22	.0001	
Close*Permiss						
1, 415	-.12	-0.02	21.31	6.79	.01	
Step-two Regression: Most Sexually Permissive						
Closeness						
1, 262	-.09	-0.01	9.41	2.81	.10	
Step-two Regression: Least Sexually Permissive						
Closeness						
1, 153	.05	0.01	1.37	.33	.57	
Fathers						
Variables	β	<u>B</u>	MS	<u>F</u>	<u>p</u>	
Step-one Regression ^a						
Closeness						
1, 403	.05	0.01	3.83	1.20	.27	
Permissiveness						
1, 403	-.31	-1.10	136.94	43.04	.0001	
Close*Permiss						
1, 405	-.02	-0.00	.39	.12	.73	

Note: β = standardized beta, B = unstandardized beta.

^aRegression model = unique sources model for main effects (both main effect factors treated as if they were the last variable entered in the equation). Interaction term was entered after extracting variance due to the main effects. Error term from the full model (after extracting variance due to all effects) was used to compute F ratios.

The overall model for the effect of attachment to fathers and level of permissive attitudes on the age of initiation was significant ($F(3, 405) = 16.03, p < .0001$). However, the interaction term was not significant, so no additional analyses were run. Hypothesis 10 was partially supported.

Hypothesis 11: The eleventh analysis examined the effect of level of closeness to mothers and to fathers, level of permissive attitudes toward sexuality, and an interaction term on the number of sexual partners respondents reported they have had. Results of these regression analyses are listed in Table 4.4.

The overall model examining attachment to mothers was significant ($F(3, 413) = 29.79, p < .0001$), as was the interaction term. A second regression step was run to determine the moderating effect of high and low permissive attitudes on number of partners reported. In this second regression step, the overall model which examined level of closeness to mothers for individuals scoring in the most permissive group was not significant ($F(1, 260) = 1.50, p = .22$). Analysis of those individuals in the less permissive group also was not significant ($F(1, 153) = 2.57, p = .11$).

TABLE 4.4

Regression Model Predicting Number of Partners

Mothers					
Variables	β	<u>B</u>	MS	<u>F</u>	<u>p</u>
Step-one Regression ^a					
Closeness					
1, 414	.07	0.02	70.67	2.08	.15
Permissiveness					
1, 414	.41	4.87	2672.68	78.77	.0001
Close*Permiss					
1, 413	.13	0.09	301.76	9.07	.01
Step-two Regression: Most Sexually Permissive					
Closeness					
1, 260	.09	-0.03	82.35	1.50	.22
Step-two Regression: Least Sexually Permissive					
Closeness					
1, 153	-.07	-0.03	24.93	2.57	.11
Fathers					
Variables	β	<u>B</u>	MS	<u>F</u>	<u>p</u>
Step-one Regression ^a					
Closeness					
1, 404	-.04	-0.01	31.87	.96	.33
Permissiveness					
1, 404	.38	4.53	2263.01	68.21	.0001
Close*Permiss					
1, 403	.04	0.02	25.29	.76	.38

Note: β = standardized beta, B = unstandardized beta.

^aRegression model = unique sources model for main effects (both main effect factors treated as if they were the last variable entered in the equation). Interaction term was entered after extracting variance due to the main effects. Error term from the full model (after extracting variance due to all effects) was used to compute F ratios.

The overall model examining attachment to fathers was also significant ($F(3, 403) = 24.85, p < .0001$), but the interaction term was not, so additional analyses were not indicated. Hypothesis 11 was partially supported for mothers, but not for fathers.

Hypothesis 12: The twelfth analysis examined the effect of the level of closeness to mothers and level of closeness to fathers, level of permissive attitudes, and an interaction term on the level of satisfaction respondents reported to have had with their sexual experiences. The overall model for mothers was not significant ($F(3, 416) = 1.01, p = .39$), and neither was the overall model for fathers ($F(3, 406) = .61, p = .61$), so no further regression results were examined. Hypothesis 12 was not supported.

CHAPTER V
DISCUSSION

This study examined the impact of adolescent attachment style and level of closeness to mothers and/or fathers on reported age of initiation of sexual intercourse, reported number of partners, and reported level of satisfaction individuals had with their own sexual experiences. It also examined the moderating effect of permissive attitudes toward sexual behavior on these dependent variables.

The sample used in this study was taken from a primarily Anglo, middle-class, college population in the southwest; but in terms of what they report, they do not seem very different from what respondents in other studies have reported. Roughly one fourth of the sample reported that they had not yet initiated coitus. Although this figure may seem high, it is consistent with other research that examines adolescent sexual behavior (e.g., Antonovsky et al., 1980; Steinberg, 1993). Findings also showed that gender had a main effect on the age of initiation of sexual intercourse and on the number of partners reported by respondents. As in previous studies (e.g., Billy et al., 1984; Billy & Udry, 1985; Chara & Kuennen, 1994), gender is again a reliable predictor of behavioral differences.

Females in this study reported that they initiated coitus at a later age than males, and had fewer partners.

Other research has shown that age at initiation of sexual intercourse is influenced by many factors, such as peer attitudes and social-economic status (Steinberg, 1993; Young et al., 1993; Zabin et al., 1993), which were not included in this study, but gender was clearly an important factor.

The nature of the sample does, however, create some limitations. Given the demographics, the results of this study may not be generalizable to a population of adolescents from a lower social-economic status. This sample also consisted of individuals in late adolescence, and may not be generalizable to individuals in early or middle adolescence. However, these limitations are similar to other studies which use a college population.

This research is also limited because it uses a cross-sectional design in a predictive model. This research used retrospective and current data to predict the effect of these variables on sexual behavior. Although it is recognized that information gained in this manner has the potential for bias and cross-sectional data does not have the strength of a longitudinal research design, this is a common method for research in the field of attachment (i.e., Hazan & Shaver, 1987; Kirkpatrick & Shaver, 1990).

Another limitation of the present study involves the measure of satisfaction with sexual experiences. There were no significant findings involving this variable. It is possible that a single-item measure of satisfaction was inadequate. Use of a measure of satisfaction such as the Index of Sexual Satisfaction which is reported to have Cronbach's alphas consistently measured above .90 (Touliatos et al., 1990) in future research may provide a better test of the effect of attachment on satisfaction.

In addition to the strong gender effects, permissiveness also was a strong predictor of age of initiation of sexual intercourse and of the number of partners respondents reported in the expected direction. Permissive attitudes were measured using the permissiveness subscale developed by Hendrick and Hendrick (1987) for the Sexual Attitudes Survey. This measure was used to determine if there was a moderating or main effect of permissiveness on sexual behavior in this sample. The findings of this research show that respondents whose scores reflected high permissiveness reported having initiated coitus at a significantly earlier age and as having a significantly greater number of partners than those respondents who scored lower on the permissiveness scale. Therefore, there was a significant main effect for permissiveness.

The effects of gender and permissiveness on sexual behavior have been examined by previous research and the findings from the present study are in agreement with those from other studies. However, the role of attachment on sexual behavior has not been extensively studied. Attachment was measured using both a categorical measure which looked at style of attachment (Hazan & Shaver, 1987) and a continuous measure which examined closeness to mothers and to fathers (IPPA). Use of these measures to examine effect of attachment on the dependent variables provided two different perspectives from which to view attachment. An area of interest in this study is the comparison of the Hazan and Shaver (1987) measure of attachment as a predictor of sexual behavior and the IPPA measure of connectedness to mothers and/or fathers.

The Hazan and Shaver (1987) measure asked respondents to identify one of three statements that best described their current relationship style. This choice, based on the assumption that attachment in childhood is continuous throughout life, was then used to categorize the attachment style of the respondent. These analyses did not find an effect of attachment style on sexual behavior. It is possible that this retrospective measure of attachment style may be too global, and therefore, too insensitive a measure to predict these specific behaviors. However, the IPPA,

which measured closeness to the individual's mother and/or father uses a wider variety of items that may more fully capture the aspects of the parent-child relationship relevant to sexual behavior.

The IPPA (Mother, Father, and Peer Version) examined the level of closeness respondents reported having with their mother and/or father. Based on the theoretical assumption that this level of closeness (i.e., attachment) would predict respondents' current relationship styles, this measure was used to determine the effect of the current relationship with one's mother and/or father on the sexual behaviors reported by the respondent.

There was no main effect of attachment using the IPPA for the analyses which examined closeness to mothers and age of initiation and number of partners. And though the interaction was significant, the follow-up analysis which controlled for the moderating effect of sexually permissive attitudes on closeness to mothers for age of initiation and number of partners respondents reported revealed no effect for closeness to mothers. Furthermore, the overall models examining the effect of closeness to fathers and degree of sexually permissive behavior on the respondent's reported age of initiation and number of partners found no interaction between these two independent variables.

This suggests that individuals' behaviors may be as much a function of their belief about the sexual experiences they have had as these behaviors are a function of the relationships individuals have with their parents. This same finding appeared in research conducted by Jorgensen and Adams (1985) which examined a social psychological model. This model

states that a person's intentions to behave in a certain way are a direct function of his or her attitudes toward the behavior itself, beliefs about what significant others think he or she should do (normative beliefs), and the motivation to comply to the beliefs of those significant others. (Jorgensen & Adams, 1985, pp. 109-110)

Similarly, Herant Katchadourian (1990) illustrates the confounding effect of attitudes and experiences in adolescent relationships, as well as the confound of parent and peer relationships. So, although it is possible that style of attachment and closeness to parent(s) indicate the manner in which individuals will relate to significant others in their lives, this may not directly translate into the actual sexual behaviors exhibited by those individuals. Therefore, the absence of support for the hypotheses concerning style of attachment and closeness to mothers and/or to fathers suggests that the quality of attachment to parents does not have a significant effect on sexual decision making and sexual behaviors.

Conclusion

Although attachment has received increasing attention in terms of understanding relationship styles and interactions, it is still unclear to what extent attachment affects actual behavior. This research has examined the effect of attachment on sexual behavior reported by a sample of primarily middle-class, Anglo, late adolescents, and has found little evidence of such an effect. This research compared the results of using both a categorical and a continuous measure of attachment to examine this effect from different perspectives. Gender and sexually permissive attitudes are clearly important predictors of adolescent sexual behavior. The categorical measure developed by Hazan and Shaver (1987) did not predict sexual behavior reported by respondents. This may be due, in part, to the broad, sweeping nature of this measure as well as the use of retrospective data. The continuous measure known as the IPPA, developed by Armsden and Greenberg (1987), was more sensitive, yet results from these analyses found that closeness to mothers had no significant moderating effect on permissive attitudes.

Future research in the area of attachment and adolescent sexual behavior might be improved with the use of a more sensitive measure of attachment which could better capture the nature of the relationship interaction styles experienced by adolescents. Because sexually permissive attitudes were found to be significant moderators for closeness to mothers and to fathers in terms of age of initiation of coitus and number of partners reported, it may be important to further study the role of attachment to mothers as it is differentiated from the role of attachment to fathers. Further investigation is indicated in the area of the qualitative differences of relationships individuals have with their mothers and with their fathers.

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APPENDIX A
ATTACHMENT STYLE

Attachment Style (Shaver & Hazan, 1987)

Question:

Which of the following best describes your feelings?

Answers:

Secure:

I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about being abandoned or about someone getting too close to me.

Avoidant:

I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.

Anxious-Ambivalent

I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want

to merge completely with another person, and this desire sometimes scares people away.

APPENDIX B

Inventory of Parent-Peer Attachment Scale

(IPPA)

IPPA (Mother, Father, Peer Version) (Armsden and Greenberg, 1987, 1991). Sections for mother and father only.

Please read each statement and indicate the ONE item that tells how true the statement is for you.

- a. almost always or always true
- b. often true
- c. sometimes true
- d. seldom true
- e. almost never or never true

1. My mother respects my feelings.
2. I feel my mother does a good job as my mother.
3. I wish I had a different mother.
4. My mother accepts me as I am.
5. I like to get my mother's point of view on things I'm concerned about.
6. I feel it's no use letting my feelings show around my mother.
7. My mother can tell when I'm upset about something.
8. Talking over my problems with my mother makes me feel ashamed or foolish.

9. My mother expects too much from me.
10. I get upset easily around my mother.
11. I get upset a lot more than my mother knows about.
12. When we discuss things, my mother cares about my point of view.
13. My mother trusts my judgment.
14. My mother has her own problems, so I don't bother her with mine.
15. My mother helps me to understand myself better.
16. I tell my mother about my problems and troubles.
17. I feel angry with my mother.
18. I don't get much attention from my mother.
19. My mother helps me to talk about my difficulties.
20. My mother understands me.
21. When I am angry about something, my mother tries to be understanding.
22. I trust my mother.
23. My mother doesn't understand what I'm going through these days.

24. I can count on my mother when I need to get something off my chest.
25. If my mother knows something is bothering me, she asks me about it.
26. My father respects my feelings.
27. I feel my father does a good job as my father.
28. I wish I had a different father.
29. My father accepts me as I am.
30. I like to get my father's point of view on things I'm concerned about.
31. I feel it's no use letting my feelings show around my father.
32. My father can tell when I'm upset about something.
33. Talking over my problems with my father makes me feel ashamed or foolish.
34. My father expects too much from me.
35. I get upset easily around my father.
36. I get upset a lot more than my father knows about.
37. When we discuss things, my father cares about my point of view.

38. My father trusts my judgment.
39. My father has his own problems, so I don't bother him with mine.
40. My father helps me to understand myself better.
41. I tell my father about my problems and troubles.
42. I feel angry with my father.
43. I don't get much attention from my father.
44. My father helps me to talk about my difficulties.
45. My father understands me.
46. When I am angry about something, my father tries to be understanding.
47. I trust my father.
48. My father doesn't understand what I'm going through these days.
49. I can count on my father when I need to get something off my chest.
50. If my father knows something is bothering me, he asks me about it.

APPENDIX C
SEXUAL ATTITUDES SCALE

Sexual Attitudes Scale (Hendrick and Hendrick, 1987)

Permissiveness

Indicate your opinion regarding the following items by marking

- a. strongly agree
 - b. moderately agree
 - c. neutral
 - d. moderately disagree
 - e. strongly disagree
-
1. I do not need to be committed to a person to have sex with him/her.
 2. One-night stands are sometimes very enjoyable.
 3. It is okay to have ongoing sexual relationships with more than one person at a time.
 4. The best sex is with no strings attached.
 5. Life would have fewer problems if people could have sex more freely.
 6. It is possible to enjoy sex with a person and not like that person very much.
 7. Sex is more fun with someone you don't love.
 8. It is all right to pressure someone into having sex.
 9. Extensive premarital sexual experience is fine.
 10. Sex for its own sake is perfectly all right.
 11. Casual sex is acceptable.

12. I would feel comfortable having intercourse with my partner in the presence of other people.
13. I would like to have sex with many partners.
14. Prostitution is acceptable.
15. It is okay to manipulate someone into having sex as long as no future promises are made.
16. Sex without love is meaningless.
17. Sex as a simple exchange of favors is okay if both people agree to it.
18. It is okay for sex to be just good physical release.
19. In order for sex to be good, it must also be meaningful.
20. Extramarital affairs are all right as long as one's partner doesn't know about them.

APPENDIX D
SEXUAL BEHAVIORS QUESTIONNAIRE

Sexual Behaviors Questionnaire

1. Do you feel threatened when someone you are dating talks to other people?
 - a. almost always or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. never or almost never true

2. If your parents discussed sexual behavior with you, how old were you?
 - a. 12 or younger
 - b. 13-15
 - c. 16-18
 - d. 19 or older
 - e. My parent(s) never discussed sexual behavior with me.

3. Did this discussion encourage you to initiate sexual intercourse?
 - a. yes
 - b. somewhat
 - c. no
 - d. does not apply

4. Did this discussion delay your initiation of sexual intercourse?
 - a. yes
 - b. somewhat
 - c. no
 - d. does not apply

5. My mother likes the people I date.
 - a. almost always true or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. never true

6. My father likes the people I date.
 - a. almost always true or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. never true

7. Overall, I am satisfied with my sexual experience(s).
 - a. never or almost never true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. always or almost always true

8. How long have you been in your current relationship?
 - a. I am not currently in a relationship.
 - b. 1 week
 - c. 1 month
 - d. 6 months
 - e. 1 year or more

9. How frequently do you see your partner?
 - a. I am not currently in a relationship.
 - b. daily
 - c. weekly
 - d. monthly
 - e. holidays only

10. Are you and your partner separated by circumstances such as attending different schools?
 - a. yes
 - b. no
 - c. does not apply

11. How long do you expect your current relationship to last?
- a. I am not currently in a relationship.
 - b. less than 6 months
 - c. 6 months - 2 years
 - d. 3 years or longer
 - e. Forever
12. What is your sexual orientation?
- a. heterosexual
 - b. gay/male homosexual
 - c. lesbian/female homosexual
 - d. bisexual
 - e. unknown/undecided
13. Your age now. _____
14. How old were you the first time you had sexual intercourse?
- _____
15. How many sexual partners have you had?
- _____
16. How many times have you had sexual intercourse in the past month?
- _____

This final section gives you the opportunity to share whatever you would like to tell us about your current relationship(s), your past relationship(s), and what kind of relationship(s) you would like to have. If you decide to share information about a past relationship, please include your age at the time of the relationship, as well as any other information that may be illuminating. Please, remember that this survey is anonymous and no information should be revealed that can be used to identify yourself or other individuals. Additional paper is available.

APPENDIX E

SURVEY OF ATTACHMENT AND CLOSE RELATIONSHIPS

Survey of Attachment and Close Relationships

The purpose of this study is to examine the relationships that people have with their parents and with others in close relationships. The following questions ask you to tell us about yourself. This questionnaire is voluntary and anonymous. Even so, you may choose not to answer any question that you do not want to answer or can discontinue your participation at any point if you want to. However, a complete set of answers will be most helpful to us in completing this study.

Please begin with the questions on page 11 as these are perhaps the most sensitive questions in the survey.

Completely fill in the circle that corresponds to your answer.

1. Gender
 - a. Female
 - b. Male

2. Race
 - a. Caucasian
 - b. African-American
 - c. Hispanic
 - d. Mixed Heritage
 - e. Other

3. Relationship Status
 - a. Not currently in a relationship
 - b. Partnered and cohabiting
 - c. Partnered in an exclusive relationship, but not cohabiting
 - d. Dating casually

4. Religious affiliation
 - a. Protestant
 - b. Catholic
 - c. Non-denominational Christian
 - d. Eastern/Middle Eastern religions
 - e. Atheist/Agnostic

5. Which of the following best describes your feelings?
 - a. I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about being abandoned or about someone getting too close to me.

 - b. I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.

 - c. I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to merge completely with another person, and this desire sometimes scares people away.

The next section asks about your relationships with two important people in your life: your mother and your father. The first set of items asks about your relationship with your birth mother or a person who has most influenced you while acting in this role (e.g., a step-mother, grandmother, etc.).

Please read each statement and fill in the circle for the answer that best describes how true the statement is for you. If there is no one who acted as a mother in your life, please fill in circle 'e' on question #6 and go on to Question #33.

- a. almost always or always true
- b. often true
- c. sometimes true
- d. seldom true
- e. almost never or never true

6. The person I am thinking about is my:
- a. birth mother
 - b. step-mother
 - c. another adult relative (like a grandmother, and or older sister who raised me)
 - d. foster mother
 - e. no one filled the role of mother for me

For the following questions, please use the scale below.

- a. almost always or always true
- b. often true
- c. sometimes true
- d. seldom true
- e. almost never or never true

7. My mother respects my feelings.
8. I feel my mother does a good job as my mother.
9. I wish I had a different mother.

10. My mother accepts me as I am.
11. I like to get my mother's point of view on things I'm concerned about.
12. I feel it's no use letting my feelings show around my mother.
13. My mother can tell when I'm upset about something.
14. Talking over my problems with my mother makes me feel ashamed or foolish.
15. My mother expects too much from me.
16. I get upset easily around my mother.
17. I get upset a lot more than my mother knows about.
18. When we discuss things, my mother considers my point of view.
 - a. almost always or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. almost never or never true
19. My mother trusts my judgment.
20. My mother has her own problems, so I don't bother her with mine.
21. My mother helps me to understand myself better.
22. I tell my mother about my problems and troubles.
23. I feel angry with my mother.
24. I don't get much attention from my mother.

25. My mother encourages me to talk about my difficulties.
26. My mother understands me.
27. I don't know whom I can depend on these days.
28. When I am angry about something, my mother tries to be understanding.
29. I trust my mother.
30. My mother doesn't understand what I'm going through these days.
31. I can count on my mother when I need to get something off my chest.
32. If my mother knows something is bothering me, she asks me about it.

The next set of items asks about your relationship with your birth father or a person who has most influenced you while acting in this role (e.g., a step-father, grandfather, etc.).

Please read each statement and fill in the circle for the answer that best describes how true the statement is for you. If there is no one who acted as a father in your life, please fill in circle 'e' on question #33 and go on to Question #59.

33. The person I am thinking about is my:
 - a. birth father
 - b. step-father
 - c. another adult relative (like a grandfather, and or older brother who raised me)
 - d. foster father
 - e. no one filled the role of father for me

For the following questions, please use the scale below.

- a. almost always or always true
- b. often true
- c. sometimes true
- d. seldom true
- e. almost never or never true

- 34. My father respects my feelings.
- 35. I feel my father does a good job as my father.
- 36. I wish I had a different father.
- 37. My father accepts me as I am.
- 38. I like to get my father's point of view on things I'm concerned about.
- 39. I feel it's no use letting my feelings show around my father.
- 40. My father can tell when I'm upset about something.
 - a. almost always or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. almost never or never true
- 41. Talking over my problems with my father makes me feel ashamed or foolish.
- 42. My father expects too much from me.
- 43. I get upset easily around my father.
- 44. I get upset a lot more than my father knows about.

45. When we discuss things, my father cares about my point of view.
46. My father trusts my judgment.
47. My father has his own problems, so I don't bother him with mine.
48. My father helps me to understand myself better.
49. I tell my father about my problems and troubles.
50. I feel angry with my father.
51. I don't get much attention from my father.
52. My father helps me to talk about my difficulties.
53. My father understands me.
54. When I am angry about something, my father tries to be understanding.
55. I trust my father.
56. My father doesn't understand what I'm going through these days.
 - a. almost always or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. almost never or never true
57. I can count on my father when I need to get something off my chest.
58. If my father knows something is bothering me, he asks me about it.

The following questions ask about your sexual attitudes and behaviors. Remember, this questionnaire is voluntary and anonymous. You may also choose not to answer any question that you do not want to answer; however, a complete set of answers will be most helpful in completing this study.

Indicate your opinion regarding the following items by marking the circle for the answer that best describes you.

- a. strongly agree
- b. moderately agree
- c. neutral
- d. moderately disagree
- e. strongly disagree

59. I do not need to be committed to a person to have sex with him/her.
60. One-night stands are sometimes very enjoyable.
61. It is okay to have ongoing sexual relationships with more than one person at a time.
62. The best sex is with no strings attached.
63. Life would have fewer problems if people could have sex more freely.
- a. strongly agree
 - b. moderately agree
 - c. neutral
 - d. moderately disagree
 - e. strongly disagree
64. It is possible to enjoy sex with a person and not like that person very much.
65. Sex is more fun with someone you don't love.
66. It is all right to pressure someone into having sex.

67. Extensive premarital sexual experience is fine.
68. Sex for its own sake is perfectly all right.
69. Casual sex is acceptable.
70. I would feel comfortable having intercourse with my partner in the presence of other people.
71. I would like to have sex with many partners.
72. Prostitution is acceptable.
73. It is okay to manipulate someone into having sex as long as no future promises are made.
74. Sex without love is meaningless.
75. Sex as a simple exchange of favors is okay if both people agree to it.
76. It is okay for sex to be just good physical release.
77. In order for sex to be good, it must also be meaningful.
78. Extramarital affairs are all right as long as one's partner doesn't know about them.
79. Do you feel threatened when your partner talks to other people?
 - a. almost always or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. never or almost never true

80. If your parents discussed sexual behavior with you, how old were you?
- a. 12 or younger
 - b. 13-15
 - c. 16-18
 - d. 19 or older
 - e. My parent(s) never discussed sexual behavior with me.
81. Did this discussion encourage you to initiate sexual intercourse?
- a. yes
 - b. somewhat
 - c. no
82. Did this discussion delay your initiation of sexual intercourse?
- a. yes
 - b. somewhat
 - c. no
83. My mother likes my partners. (If you do not have a mother, please go on to question #84.)
- a. almost always true or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. never true
84. My father likes my partners. (If you do not have a father, please go on to question #85.)
- a. almost always true or always true
 - b. often true
 - c. sometimes true
 - d. seldom true
 - e. never true

85. I am satisfied with my sexual experience(s).
- a. never or almost never true
 - b. seldom true
 - c. sometimes true
 - d. often true
 - e. always or almost always true
86. How long have you been in your current relationship?
- a. I am not currently in a relationship.
 - b. 1 month or less
 - c. between 1 and 6 months
 - d. between 6 months and 1 year
 - e. more than 1 year
87. How frequently do you see your partner?
- a. I am not currently in a relationship.
 - b. daily
 - c. weekly
 - d. monthly
 - e. holidays and vacations only
88. Are you and your partner separated by circumstances such as attending different schools?
- a. I am not currently in a relationship
 - b. yes
 - c. no
89. How long do you expect your current relationship to last?
- a. I am not currently in a relationship.
 - b. less than 6 months
 - c. 6 months - 2 years
 - d. 3 years or longer
 - e. Forever

90. What is your sexual orientation?
- a. heterosexual
 - b. gay/male homosexual
 - c. lesbian/female homosexual
 - d. bisexual
 - e. Unknown/undecided

Please answer these questions first. These are perhaps the most sensitive questions in the survey. Remember, your answers are personal and confidential; however, if you do not wish to answer these questions, please raise your hand and someone will pick up your survey.

91. Your age now. _____

92. How old were you the first time you had sexual intercourse?

93. How many sexual partners have you had?

94. How many times have you had sexual intercourse in the past month?

Thank you for answering these questions. Please go to the beginning and complete the survey. If there is enough time after you have completed the body of the survey, please complete the final section on page 12.

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