EFFECTS OF ROMANTIC ATTACHMENT ON SEXUAL ACTIVITY, SUBSTANCE USE, AND ABUSE IN A SAMPLE OF RUNAWAY YOUTH

THESIS

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By

Amber Letcher, B.S.

The Ohio State University
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Master’s Examination Committee:

Dr. Natasha Slesnick, Advisor

Dr. Sarah Schoppee-Sullivan

Approved by

______________________________
Advisor

College of Human Ecology
ABSTRACT

Research on adolescent attachment is scarce. Studies to date have focused primarily on high-functioning, college student samples with minimal attention given to at-risk, early adolescents. The current study assessed the relationship between sexual activity, substance use, physical and sexual abuse, and attachment avoidance and anxiety in a high risk sample of runaway youth. As part of an ongoing longitudinal study, 73 adolescents (age 12-17) were recruited from a local runaway shelter. The only significant finding was that attachment avoidance predicted age at first use of marijuana. The prediction that childhood abuse would moderate the relationship between attachment and risk behavior also was not supported. Finally, these findings are discussed and suggestions for future research on adolescent attachment were offered.
I would like to thank my committee for all of their support and guidance through this process.

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VITA

September 20, 1982..........................Born – Aberdeen, South Dakota

2005..............................................B. S. Consumer Affairs, South Dakota State University

2006 – present.................................Graduate Research Assistant, The Ohio State University

PUBLICATIONS

Research Publication

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CHAPTER 1

INTRODUCTION

Literature Review

The foundation of attachment theory relies on concepts taken from ethological and psychoanalytic theories. Bowlby (1969) contended that, beginning in infancy, the bond formed between individuals and attachment figures serves as the basis for the development of coping strategies, emotion regulation, and expression. Based on the repeated experiences between child and caregiver, the child develops a specific view of his world known as an internal working model (Bowlby, 1973). The working model not only shapes the child’s view of himself, but also his view of others as available and supportive (Bowlby, 1969). Additionally, the child’s working model provides him with a preferable method for coping (Cooper, Shaver, & Collins, 1998), and leads him to react with theoretically predictable behaviors during times of distress (Golder, Gillmore, Spieker, & Morrison, 2005).

Bowlby’s theory was later enhanced by the empirical studies of Mary Ainsworth and colleagues (Ainsworth, Blehar, Waters, & Wall, 1978). Ainsworth developed a laboratory experiment in which children (approximately 12 months old) were subjected...
to a series of separations from, and reunions with, their caregiver (Kassel, Wardle, & Roberts, 2007); motivated by the idea that an infant’s attachment system is “activated” when he is in stressful situations such as the separation from his mother (Mangelsdorf & Frosch, 2000). In the experiment, known as the Strange Situation Procedure (SSP), Ainsworth et al. (1978) discovered that children reacted in fundamentally different ways when they were distressed. The subsequent observations of infant behavior in the SSP led to the creation of three specific attachment categories: secure, anxious-avoidant, and anxious-ambivalent (1978). Securely attached infants became distressed when separated from the caregiver, usually crying at her departure, yet were easily comforted and calmed upon her return (Cooper et al., 1998). However, infants classified in the remaining two categories, labeled insecurely attached, reacted more drastically. Anxious-avoidant infants appeared indifferent to the absence of the caregiver, showing little reaction during the separation and reunion phases. Infants labeled anxious-ambivalent showed very strong emotional reactions to their caregiver’s departure, however, unlike the secure infants, they could not be consoled once the caregiver returned. Although the infants in this category appeared to desire contact with the caregiver, they also often showed anger toward him or her (1998; Colin, 1996).

In relation to Bowlby’s internal working model, securely attached children have a view of the self, or model of self, as worthy of love and attention from others, and a view of others, or model of others, as available and supportive. However, insecurely attached children develop a model of self as unworthy of love from others, and a model of others
as undependable and unavailable (Cassidy, 1999; Cook, 2000). Further, attachment styles can be described as the visual representations of internal working models (Golder et al, 2005).

Another central tenet of the theory of attachment is the characterization of the caregiver as a “secure base” from which the child can safely and comfortably explore his environment (Waters & Cummings, 2000). Caregivers who demonstrate sensitivity and availability during stressful periods for their children lay the foundation for the development of a secure attachment and a positive internal working model (2000). Other important functions of the attachment figure involve proximity maintenance and separation protest in which children show a strong desire to be near, and strong resistance to being separated from, the caregiver. Caregivers also serve as a safe haven during times of discomfort providing protection from perceived danger (Feeney, 1999).

Although attachment theory places a strong emphasis on the infancy period, Bowlby originally theorized that attachment was pivotal in the development of an individual throughout his lifespan (Bowlby, 1979). However, it was not until the 1980’s that researchers began to apply the theory to adult relationships (Cooper et al., 1998; Feeney, 1999; Fraley & Shaver, 2000; Kassel et al., 2007).

In their groundbreaking study, Hazan and Shaver (1987) documented the potential parallels between the attachment behavior of infants and the behavior of adults in romantic partnerships (Cooper et al., 1998). Hazan and Shaver (1987) argued that the trademark behavior observed between infant and caregiver could also be attributed to adults in romantic relationships (Fraley & Shaver, 2000). Keeping the traditional
attachment categories developed by Ainsworth and colleagues (i.e., secure, anxious-avoidant, anxious-ambivalent), Hazan and Shaver developed a self report questionnaire for adults in order to identify the presence of similar attachment patterns in their relationships (Feeney, 1999). Results of the study showed similar frequencies of each attachment category when compared to the infant literature (1999).

Further research into the similarities between infant and adult attachment produced marked parallels in behavior. For example, just as a secure attachment relationship between the caregiver and child sets the stage for a plethora of positive outcomes including more enthusiasm, better problem solving skills, higher self esteem, and less negative affect (Mangelsdorf & Frosch, 2000), secure attachment in adult relationships is characterized by fewer relationship problems (Kershaw, Milan, Westdahl, Lewis, Rising, Fletcher, & Ickovics, 2007), greater relationship satisfaction (Gentzler & Kerns, 2004) and stability (Cooper et al., 1998; Kershaw et al., 2007), and more self-confidence and social skills (Cooper et al., 1998). Insecure infants are described as showing more aggression toward parents and peers (Mangelsdorf & Frosch, 2000), and displaying more fearful reactions in stressful situations (Kochanska, 2001). Likewise, insecure attachment in adults results in more dysfunctional anger towards partners during relationship conflict (Kershaw et al., 2007; Simpson, Collins, Tran, & Haydon, 2007), more jealousy (Cooper et al., 1998), and more clingy and controlling behavior (Kershaw et al., 2007) due to a fear of abandonment (Cooper et al., 1998).

At the present time, infant and adult attachment research is well established; however, the period separating these developmental stages has been neglected (Waters &
Cummings, 2000). The study of the effects of attachment in adolescence is needed in order to fill the gap between infancy and adulthood in the attachment literature (Cooper et al., 1998). Waters and Cummings (2000) also note the numerous “missed opportunities” due to the misunderstanding that attachment development is predominantly part of the infancy period. One such missed opportunity may be the lack of emphasis on adolescent attachment considering the remarkable mental and physical changes experienced during this developmental period (Cooper et al., 1998). Adolescence can be viewed as a transitional period with increased levels of exploration and experimentation (1998). Youth in this stage may test boundaries and indulge in high risk behavior such as substance use or sexual activity (Golder et al., 2005). Attachment theory provides a useful framework in discovering possible reasons for such behavior in adolescents (Golder et al., 2005, Gwadz, Clatts, Leonard, & Goldsamt, 2004). Specifically, researchers have explored the relationship between attachment styles and initial occurrence and frequency of risk behavior (e.g. Cooper et al., 1998; Elgar, Knight, Worrall, & Sherman, 2003; Gentzler & Kerns, 2004; Golder et al., 2005; Kassel et al., 2007).

Attachment and Sexual Behavior

The effect of romantic attachment on adolescent sexual behavior has recently received much attention which may be due to an overall increased interest in adolescent relationships in general (Furman, 2002). Links between an individual’s attachment style and his subsequent attitudes regarding sex and participation in sexual activities are exhibited with strong consensus. While assessing the motivations for sexual behavior in a
sample of college students, Schachner and Shaver (2004) found that avoidant individuals were more likely to report having sex in order to fit in with peers, to lose their virginity, or to brag about it to friends. Anxious individuals, however, indicated that sexual motivation emerged from a need to feel closer to their partner, or to make their partner love them more. Similar results were discovered by Tracy, Shaver, Albino, and Cooper (2003) with avoidant adolescents having sex in order to lose their virginity, and those with anxious attachments using sexual relations as a source of security in the relationship.

Studies have also linked attachment and sexual activity to social skills. Increasingly, avoidant adolescents have demonstrated inhibited social skills, less involvement in risk behavior, and no interaction with sexual partners (Cooper et al., 1998). Those avoidant individuals who were sexually active had less restrictive beliefs about casual sex, and also tended to have engaged in their first sexual experience before the age of 16 (Gentzler & Kerns, 2004). Interestingly, avoidant adolescents were also linked to engaging in more unwanted, but consensual sex (2004) indicating a lack of healthy social skills as well as the need to participate in sexual acts for peer acceptance.

Adolescents with anxious attachments demonstrated difficulties with social skills as well. In their attempt to satisfy their sexual partners, anxious adolescents often worried that asking a partner to use a condom would show the partner a lack of trust. Such low condom self efficacy was related to higher rates of unprotected sex with risky partners (Kershaw et al., 2007). The ease of pressuring anxious individuals into risky sexual
behavior (Gentzler & Kerns, 2004) is especially problematic when it occurs with an avoidant partner seeking power and control from the encounter (Schachner & Shaver, 2004).

Attachment and Substance Use

Studies examining the relationship between attachment and substance use are slightly less abundant (Kassel et al., 2004), yet findings to date indicate that individuals with an anxious attachment style may be more likely to use drugs and alcohol. Specifically, anxious individuals reported drinking at a higher frequency and also having more alcohol related problems than either secure or avoidant individuals (Cooper et al., 1998). Kassel et al. (2004) analyzed differences in substance use patterns according to stress-motivated use. Anxiously attached individuals were more likely to use marijuana and alcohol to combat stress (2004). Similarly, anxious individuals were the most likely to be using substances in an at-risk sample of young men who have sex with men (Gwadz et al., 2004).

Research focusing on substance use and attachment echoes the findings of studies related to sexual activity and attachment. In particular, avoidant adolescents differed minimally from secure youth in their level of substance use, and anxious individuals reported the most use (Cooper et al., 1998; Kassel, et al., 2007). Consistent with the explanations given in response to the findings regarding sexual activity, researchers theorize that anxious individuals use substances as a way to cope with stress and engage with others (Cooper et al., 1998; Golder et al., 2005). And, while avoidant and secure
youth report similar use patterns, avoidant individuals tend to refrain from substance use due to a lack of social skills which inhibit their exposure to peer pressure (Cooper et al., 1998).

**Attachment and Abuse**

Risk behavior, such as sexual activity and substance use, has also been increasingly linked to the experience of prior traumatic events (Golder et al., 2005). Indeed, a strong case can be made for the relationship between physical/sexual abuse and risk behavior in adolescence. For example, adolescents experiencing some form of abuse (i.e. dating violence, physical or sexual abuse) are significantly more likely to also be engaging in risky sexual and drug use activities (Aspelmeier, Elliott, & Smith, 2007; Ramisetty-Mikler, Goebert, Nishimura, & Caetano, 2005; Silverman, Raj, Mucci, & Hathaway, 2001; Wingend, DiClemente, McCee, Harrington, & Davies, 2001). Similarly, Perkins and Jones (2004) discovered that adolescent victims of physical abuse were significantly more likely to engage in risk behaviors including alcohol and drug use, sexual activity, suicidal ideation, and purging.

The association between abuse and risk behavior is especially prevalent in at-risk populations such as gay/lesbian and bisexual youth (Saewyc, Skay, Richens, Reis, Poon, & Murphy, 2006), homeless adolescents (Johnson, Rew, & Sternglanz, 2006), and minority populations (Ramisetty-Mikler et al., 2005). In addition, Saewyc et al. (2006) found that the relationship between abuse and risk behavior was not only positive in gay/lesbian and bisexual adolescents, but also that this group was at a higher risk for experiencing abuse when compared to heterosexual samples. Runaway and homeless
youth have shown similar patterns for experiencing abuse (Rew, Taylor-Seehafer, Thomas, & Yockey, 2001). These abused youth tend to participate in more varied and more frequent risk behaviors (Johnson et al., 2006).

The existence of a relationship between abuse and risk behavior has been established; however, what effect attachment may have on this association has not been systematically analyzed. Although research is beginning to examine the effect of attachment on psychological symptoms (Aspelmeier et al., 2007; Hankin, 2005), very few studies were found that looked at the influence of attachment on behavior. Utilizing a sample of undergraduate psychology students, Liem and Boudewyn (1999) produced one of the limited works in this area; however, attachment was not specifically assessed as the authors relied on the frequencies of events that theoretically would serve as a barrier to the development of a secure attachment (i.e. non-sexual maltreatment, and loss of a caregiver) as the measure of attachment. Still results indicated a positive link between barriers to a secure attachment and self-destructive behavior such as seeking risky arousal and neglecting duties (1999).

Aspelmeier and colleagues (2007) provide an example of the more predominant use of attachment as a moderating variable between abuse and psychological outcomes. The study examined whether secure attachment served as a protective factor between sexual abuse in childhood and trauma symptoms in adulthood. Results of the study relayed evidence that attachment security modestly moderated the association. Secure individuals consistently displayed lower trauma systems (2007). Likewise, Whiffen,
Jude, and Aube (1999) found similar results for the moderating effect of attachment on childhood sexual abuse and depression in adults with insecure individuals scoring higher on the depression measures.

**Research Gaps and Future Directions**

As work in the area of adolescent romantic relationships and attachment is only in the beginning stages, growth and refinement is expected. Extension of the previous projects will no doubt uncover findings that challenge the current view of adolescent romantic attachment. However, improvement to current methodological practices will undoubtedly benefit the research.

Beginning with the sample characteristics of those recruited to participate in many of the current studies, future research will benefit from utilizing more diverse participants (Kassel et al., 2007). Females appear to be the subject of choice for many researchers (Aspelmeier et al., 2007; Creasey, Kersha, & Boston, 1999; Davila, Steinberg, Kachadourdian, Cobb, & Fincham, 2004; Golder et al., 2005; Kershaw et al., 2007; Steinberg, Davila, & Fincham, 2006). Attachment theory has already been criticized for its lack of attention to the male perspective (Cowan, 1997; Grossmann et al., 2002; Williams & Kelly, 2005), and although males were also included in some of the studies, authors often acknowledged the view that females were more emotionally focused and better prepared to discuss their attachment relationships (Davila et al., 2004; Feiring, 1996; Shulman & Scharf, 2000). Little evidence to support this claim exists, and excluding males from studies will only lead to a lack of generalizability of the findings and preclude research in attachment from assessing all variables.
Another issue with current sample recruitment practices is the common location from which subjects are pulled. A majority of the studies of adolescents utilize college student samples (Aspelmeier et al., 2007; Creasey & Hesson-McInnis, 2001; Creasey & Ladd, 2004; Gentzler & Kerns, 2004; Hankin, 2005; Kassel et al., 2007; Miller & Hoicowitz, 2004; Reese-Weber & Marchand, 2002; Schachner & Shaver, 2004). The justification for obtaining a convenience sample is not difficult to understand as participants are readily available and easy to recruit. Researchers may argue that in order to find participants in romantic relationships, an older sample is necessary. However, the results of studies like Shulman and Scharf (2000) which indicate that younger adolescents were just as likely to be in a relationship as older participants suggests that assuming dating increases steadily with age may be a naïve interpretation of the dating practices of today’s youth. By concentrating on the romantic relationships of college students, we also blur the line between adolescence and young adulthood. If researchers are truly interested in the adolescent period, an equal amount of attention must be focused on the activities of early, middle, and late adolescence.

Finally, researchers have called for more emphasis on high risk samples (Cooper et al., 1998; Golder et al., 2005; Gwadz et al., 2004, Tarabulsy et al., 2005). Selecting from only college student samples leads to a predominantly White, middle-class, high-functioning sample that is not representative of the public (Aspelmeier et al., 2007). Additionally, results may be skewed when assessing risk behavior in a sample that does not consistently participate in such behaviors (Aspelmeier et al., 2007; Kassel et al.,
Exploring the effects of attachment in a high risk sample aids in the creation of interventions specifically targeted to a population in critical need of assistance (Golder et al., 2005).

Interest in the effects of attachment on adolescent romantic relationships is just beginning to emerge. While attachment theory is well immersed in the developmental period of infancy and adulthood, the adolescent stage is less clearly defined. Prior research provides evidence of the effects of relationships in infancy to future relationships in adulthood; however, very little is known about the transmission of attachment in between these two periods. As romantic relationships are of central concern to most adolescents (Furman, 2002), further research in this area will likely lead to new pathways of interest. Focusing specifically on attachment’s influence on intimate relationships in adolescence is also important due to its connection with the initiation of risky sexual activity and substance use. The current study provides an opportunity to investigate romantic attachment in an understudied, at-risk sample in order to discover the links between abuse, attachment and risk behaviors.

Current Study

Due to the previously discussed gaps in the literature, research on adolescent attachment offers almost limitless possibilities for future investigation. Even topic areas currently under study are not saturated with empirical findings. Giordano (2003) calls research focused on adolescent romantic relationships the “last frontier” in the study of general adolescent relationships, yet the influence of attachment on these romantic partnerships has received less attention.
Attachment theory provides an excellent foundation in exploring risk behavior in adolescence. An individual’s attachment style is said to be demonstrated most clearly during times of stress (Cassidy, 1999; Kershaw, Milan, Westdahl, Lewis, Rising, Fletcher, & Ickovics, 2007). The person’s learned attachment behavior is activated in situations in which the person feels threatened or frightened. Therefore, in order to observe an individual’s attachment style most accurately, he should be assessed during a period of discontent. This notion of “activation of attachment behaviors” was the foundation of Ainworth’s SSP (Mangelsdorf & Frosch, 2000). The SSP, while successful in determining infant-caregiver attachment style, cannot be used with older ages since the tasks were developed for the infant-caregiver relationship and would not be age appropriate for adolescents. The present study will use a high-risk sample of runaway adolescents all of whom have experienced the stress of separation by running away from home or being asked to leave home by their parents, and temporarily residing in a runaway shelter. Like infants in the SSP, runaway youth often experience a series of separations and reunions with caregivers as more than half of adolescent runaways will repeat the act of running away (Thompson & Pillai, 2006). It is expected that the elevated level of stress experienced by these youth will activate attachment behavior.

Additionally, only a handful of attachment studies were found which addressed at-risk populations specifically (i.e., young mothers and juvenile delinquents). Consensus on the effects of attachment on sexual activity and substance use on any population has not been reached. While Cooper et al. (1998) and Gentzler and Kerns (2004) found that
less sexual activity was related to avoidant attachment, Golder et al. (2005) found avoidance to be significantly related to risky sexual activity. Cooper et al. (1998) concluded that anxious adolescents fared the worst (engaged in more risky behaviors) compared to those with other attachment styles, yet Golder et al. (2005) found no significant relationship between anxious attachment and risk behavior.

Studying at-risk populations can provide the opportunity to better understand the relationship between attachment, family problems, and physical and/or sexual abuse since at-risk youth who may have trouble with the legal system, education system, or use alcohol and drugs more often report such problems (Janus, Archambault, Brown, & Welsh, 1995; Molnar, Shade, Kral, Booth, & Watters, 1998). To date, the literature has examined childhood abuse and attachment in relationship to emotional outcomes such as depression and anxiety (i.e. Aspelmeier et al., 2007); however, few studies have focused on behavioral outcomes such as substance use and sexual activity (Cooper et al., 1998; Elgar, Knight, Worrall, & Sherman, 2003).

The present study attempts to add to the literature on adolescent attachment by investigating the effects of attachment on risk behaviors and experiences of abuse in a sample of runaway youth. As an at-risk population, runaway adolescents are in great need of successful interventions that address problem behavior, which may be related to attachment, in order to decrease their involvement in risky activities and aid them in dealing with prior or continuing abuse (Johnson et al., 2006). The identification of a link between abuse, attachment, and risk behavior may aid professionals in the field in
designing more effective interventions; however, in order to help create stronger interventions, a thorough understanding of this at-risk population is essential.

Of particular concern in adolescent attachment research is the ability to assess attachment accurately during this transitional period (Crowell, Fraley, & Shaver, 1999). Traditionally, in normal samples, the distribution of attachment styles has been 65% secure, 25% avoidant, and 10% anxious (Mangelsdorf & Frosch, 2000). Attachment theory posits that individuals who experience inconsistent and insensitive responses to their needs will be more likely to demonstrate insecure attachment behaviors (2000; Cassidy, 1999; De Wolff & van IJzendoorn, 1997). Therefore, it is predicted that a significant number of individuals in the present sample will have insecure attachment styles as high risk youth are more likely to come from unstable home situations. The following hypothesis will be tested:

**H$_1$**: A statistically significant number of individuals with avoidant or anxious attachment styles will be present in the sample compared to normal samples.

The number of securely attached adolescents is expected to be low; however, it is not expected to be zero. Although many studies suggest that attachment is relatively stable (Feeney, 1999; Fraley & Shaver, 2000), most researchers agree that attachment organization can change in response to significant changes in the individual’s environment (Feeney, 1999; Weinfield, Whaley, & Egeland, 2004). Indeed, even Bowlby (1988) believed that certain life events and circumstances could change attachment representations; causing insecure individuals to become secure, and secure to become insecure. Therefore, despite the high-risk backgrounds of the adolescents in this sample,
some may have developed a secure bond with their romantic partners. Given the positive outcomes of more secure individuals, it is expected that youth scoring high on attachment security will exhibit lower levels of risky sexual activity and substance use which leads to the following hypothesis:

\( H_2 \): Secure attachment will serve as a protective factor against risky sexual activity and substance use.

As previously stated, runaway adolescents are at a higher risk of experiencing physical and sexual abuse (Janus et al., 1995; Molnar et al., 1998). Abuse and maltreatment have been consistently linked to insecure attachment (Aspelmeier et al., 2007; Hankin, 2006; Weinfield et al., 2004), but how this abuse is related to attachment and risk behavior has not been resolved in the current literature. This leads to the final hypothesis:

\( H_3 \): Risk behavior will be higher in insecure adolescents who have experienced physical or sexual abuse.
CHAPTER 2

METHOD

Overview of Design

The data collected for this study are part of a larger, ongoing longitudinal study focused on treatment outcomes on substance using, runaway adolescents and their primary caretakers (PC). While the larger study evaluated treatment outcome among families over 2 years, this study focused only on the youths’ baseline data with the exception of the Adult Attachment Scale (AAS). The AAS was collected during a 4-month period from youth at either baseline (n=7), or a follow-up assessment (n=66). Treatment for those assessed at follow-up is not expected to impact their attachment style as studies suggest attachment is relatively stable over the lifespan (Collins & Read, 1994; Cooper et al., 1998; Feeney, 1999; Scharfe & Bartholomew, 1994), unless, as Bowlby contended, it is influenced by a strong emotional bond in a new relationship causing the individual to re-evaluate his or her past experiences (Crowell & Treboux, 1995). Therefore, the brief therapeutic intervention, consisting of no more than 14 sessions over a six month period, is not expected to impact reports of attachment.
Participants

A diverse sample of participants from a mid-sized, Midwestern city were recruited. Participants were engaged at a local runaway shelter, and inclusion criteria were that adolescents be between the ages of 12 and 17, have the legal option of returning home, and meet DSM-IV criteria for substance abuse or dependence based on the computerized diagnostic interview schedule for children (CDISC; Shaffer, 1992).

Procedures

Youth were approached by a graduate research assistant at the runaway shelter and information about the study was provided. If the youth expressed interest, his or her legal guardian was contacted and asked to sign a consent form. After the appropriate guardian consent was obtained, the youth’s assent was acquired. The youth’s assessment was conducted at the location of the youth’s choice (usually at home), and required approximately 2-3 hours to complete. Youth were compensated with a $40 gift card at baseline and $40 cash at each follow up point.

Relevant to this study, youth completed interviewer-administered and self-report questionnaires which addressed substance use, sexual activity, physical and sexual abuse, and romantic attachment.

Measures

Attachment

Adult attachment scale (AAS). Developed by Collins and Read (1990), The AAS is an 18-item self-report questionnaire designed to measure the dimensions of closeness, dependency, and anxiety in romantic relationships. The questionnaire uses a 5-point
Likert scale to assess the extent to which a particular statement is characteristic of the participant. Based on the scores of each sub-scale, individuals can be assigned to one of the three attachment categories. Prior research has shown moderate to high reliability. Alpha coefficients for the three sub-scales ranged from 0.68-0.86 for closeness, 0.71-0.86 for dependency, and 0.52-0.97 for anxiety (Collins & Read, 1990; Sperling, Foelsch, & Grace, 1996; Tait, Birchwood, & Trower, 2004).

Due to the limited study of adolescent romantic attachment, measures specifically addressing this population have not been consistently validated. Therefore, adult measures, with minor adjustments (Hesse, 1999), are traditionally used (see Golder et al., 2005; Kershaw et al., 2007) when assessing adolescents as they are more age appropriate than the infant measures.

**Sexual Risk Behavior**

*Health risk questionnaire.* Sexual activity was assessed using portions of the Health Risk Questionnaire, a survey resulting from a combination of the Health Risk Survey (Kann, Nelson, Jones, & Kolbe, 1989) and the Homeless Youth Questionnaire (Johnson, Aschkenasy, Herbers, & Gillenwater, 1996). Questions regarding number of lifetime partners and age at first intercourse were included in the analysis.

**Substance Use**

*Form 90-D.* Adolescents reported substance use behavior on the Form 90-D drug interview (Miller, 1996). The structured interview requires participants to recall use of all classes of drugs along with alcohol and tobacco in the previous 90 days by indicating the type of drug and frequency of use on a calendar. The current study focused on frequency
of alcohol and marijuana use during the 90 day period and age at first use of alcohol and marijuana. The Form-90 has shown acceptable reliability with correlation coefficients ranging from $r = .76$ to $r = .99$ (Scheurich et al., 2005).

**Abuse**

*Demographic interview.* As part of the initial demographic questionnaire administered at the baseline assessment, participants were asked about their experiences of physical and sexual abuse. Youth indicated whether any abuse had ever occurred, if the abuse was happening currently, and if it had been reported to authorities. For the purpose of this study, participant responses to the initial abuse question (i.e., Have you ever experienced any type of physical/sexual abuse?) were used to classify youth into abuse and no abuse categories.

**Data Analysis Plan**

To address the first hypothesis, a cluster analysis of the scores on the AAS will allow individuals to be categorized into the attachment styles of secure, avoidant, and anxious. The distribution of attachment styles in the sample will be compared to the established rates typically observed in attachment research. To examine the relationship between attachment and each of the dependent variables, namely, number of lifetime partners, age at first intercourse, frequency of alcohol and marijuana use, and age at first use of alcohol and marijuana, a series of regression analyses will be completed.

As predicted in the final hypothesis, abuse is expected to moderate the relationship between attachment and risk behavior. Baron and Kenny (1986) state that moderation can also be thought of as the presence of an interaction effect between the
independent variable and the moderating variable; therefore, moderation will be demonstrated by the appearance of a significant interaction effect.
CHAPTER 3

RESULTS

Sample Characteristics

The sample included 73 youth. The mean age of the youth assessed was 15.3 years ($SD = 1.2$). Ethnic distribution of the sample was 68% African American, 25% White, 1% Hispanic, and 5% other. Slightly over half of the sample was female (60.2%, $n = 44$). The average total annual income for families in this study ranged from $15,001 to $30,000, with slightly over half (50.7%) of the youth residing in single parent households. The majority of youth (86%) lived with a parent or guardian directly before coming to the shelter.

Slightly more than half (51.9%) of the youth reported sexual and/or physical abuse. The average age at first intercourse was 13.0 ($SD = 2$), with 63.2% reporting between one and four lifetime sexual partners (range = 1-16). Sixty-two percent of the youth had used alcohol in the past 90 days, and 92% had used marijuana. The average age of first use for alcohol ($M = 13.0$, $SD = 2.3$) and marijuana ($M = 12.7$, $SD = 2.5$) were comparable. Additional demographic characteristics can be found in Figure B.1.
Preliminary Analyses

Recall that the first hypothesis predicted significantly higher rates of insecure attachment styles (i.e., avoidant and anxious) in comparison to the traditional rates of 65% secure, 25% avoidant, and 10% anxious observed in prior research (Mangelsdorf & Frosch, 2000), while the second hypothesis predicted that a secure attachment style would serve as a protective factor against risk behavior. A cluster analysis was performed to transform the dimensions of close, depend, and anxiety into attachment styles as recommended by the authors of the AAS; however, no significant clusters emerged. Due to the inability to categorize participants into unique attachment “styles,” the hypotheses could not be addressed.

Collins (1996) suggests an alternative way of interpreting the AAS. The close and depend scales tend to be highly correlated and are conceptually similar allowing them to be combined to obtain an overall avoidance score. Coupled with the original anxiety score, the dimensions of avoidance and anxiety can be utilized in analysis. This approach has been well-documented in the literature (Collins, 1996; Golder et al., 2005; Kershaw et al., 2007) with many researchers noting the advantages of the dimensional approach in more accurately assessing the differences in attachment behavior (Stein et al., 2002). All further analyses in this study utilize the avoidance and anxiety dimensions.

Before testing the main hypotheses of the study, the potential effect of treatment on attachment was tested. As previously stated, the AAS was administered to some participants before a therapeutic intervention, while others completed the questionnaire after the intervention had occurred. Treatment was not expected to affect attachment;
however, a two sample t-test was performed to ensure the attachment scores of the sample in pre- and post-treatment phases were not significantly different.

The mean anxiety score \( (M = 16.57, SD = 4.50, n = 7) \) for youth completing the AAS at baseline, before treatment, was not significantly different from youth completing the measure after treatment had occurred \( (M = 16.59, SD = 3.71, n = 66) \), \( t(71) = -.013, p = .374 \). Similarly, no differences in means were found in the avoidance scores. Scores for youth prior to treatment \( (M = 18.93, SD = 2.44, n = 7) \) were comparable to scores after treatment commenced \( (M = 18.66, SD = 2.79, n = 66) \), \( t(71) = .245, p = .274 \).

Primary Analyses

Attachment and Risk Behavior

The relationships between the two newly formed attachment dimensions and risk behavior were analyzed using a series of simple linear regressions. Each attachment dimension was entered against each of the sexual risk behaviors (age at first intercourse and number of lifetime partners) and substance use variables (age at first use of alcohol, age at first use of marijuana, percent days of alcohol use during the assessment period, and percent days of marijuana use in the assessment period). Alcohol and marijuana use were chosen as the substance use variables due to minimal use of other illicit drugs in the sample.

Avoidance dimension. Sexual risk behavior was addressed first. No significant relationships were found between the avoidance dimension and any of the sexual risk behaviors. In the substance use category of variables, age at first use of marijuana demonstrated the only significant relationship in any of the substance use variables, \( \beta = \)
The proportion of variance explained was $R^2 = .06$, $F(1, 67) = 5.16$, $p < .05$. An examination of the residual plots revealed two scores with standardized residuals larger than 3 indicating a significant outlier effect in the age at first use variable. After adjusting for the outliers, the relationship increased, $\beta = .389$, $p \leq .001$, with an $R^2$ of .13, $F(1, 65) = 11.56$, $p \leq .001$. Further inspection revealed that the relationship was in the predicted direction; youth using marijuana for the first time at older ages were significantly more avoidant than those initially using the drug at a younger age.

**Anxiety dimension.** Sexual risk behavior was again tested first. Like the avoidance dimension, the anxiety dimension produced no significant relationships between any of the sexual risk dependent variables. Next, the substance use variables were entered. A significant relationship was found between anxiety and age at first use of marijuana, $\beta = .377$, $p \leq .001$ with $R^2 = .13$, $F(1, 67) = 11.13$, $p \leq .001$. However, after the data were again adjusted for outlier effects the significance was reduced to $p > .05$, resulting in no significant relationships between the anxiety dimension and any of the six tested dependent variables. Figure B.2 provides more detailed results.

**Abuse**

The final hypothesis predicted a moderating effect of abuse on attachment and each of the six risk behavior variables. First, anxiety and avoidance scores were mean-centered for interpretation purposes (Aiken & West, 1991). Separate regression analyses were run using the anxiety and avoidance dimensions as the predictor variable. For each model, the predictor variable (anxiety or avoidance) was entered followed by the moderator (abuse), and finally, the interaction variable (predictor X abuse).
No significant interaction effects were found between anxiety and abuse. While no significant moderating effects were found in the avoidance dimension, some variables approached significance. The number of lifetime partners and percent days of marijuana use revealed p values of .089 and .088 respectively. However, without the finding of any significant interaction effects, hypothesis three could not be supported.

Exploratory Analyses

Due to the lack of predictive ability of the attachment dimensions, an exploratory analysis of the null findings was performed. A series of multiple linear regressions was used to predict each attachment dimension from the six independent variables. Elliot and Woodward (2007) suggest using no more than one independent variable in the final regression model for every 10 participants in the sample; therefore, the six variables in the current study are appropriate.

Avoidance Dimension

Backward elimination was used to address collinearity concerns between predictors and to decide which independent variables should be included in the final model. Correlations among predictor variables can be found in Figure B.3. Like the results for the simple linear regression, the final model found only age at first use of marijuana to be predictive of the avoidance dimension ($p \leq .001$).

Anxiety Dimension

The procedures were repeated for the anxiety dimension; however, a final model could not be calculated as none of the independent variables contributed significantly to the anxiety dimension.
CHAPTER 4

DISCUSSION

Overall, the goal of this study was to identify the effect of attachment on adolescent risk behavior in a high risk sample, and to examine the impact of abuse on this relationship. A group of shelter residing, runaway youth was recruited for the study. Information regarding their sexual activity, substance use, abuse history, and attachment was collected and analyzed. Although Bowlby’s initial work with attachment theory involved clinical samples of delinquent youth (Cooper et al., 1998), the potential strengths of using attachment theory to understand risk behavior has received little attention until more recently (Elgar et al., 2003; Golder et al., 2005; Kershaw et al., 2007). The current study’s application of attachment theory to a high-risk sample of adolescents adds to this emerging literature.

While the data did not allow for the participants to be separated categorically into attachment styles, therefore inhibiting the analysis of the predictions in hypothesis 1 and 2, analyzing the data based on attachment dimensions did provide significant results.
Although the anxiety dimension was not related to any of the substance use variables, the avoidance dimension did show a significant positive relationship between avoidance and the age of the youth at their first use of marijuana.

In the limited research on the effects of attachment on substance use, avoidance and anxiety are often each significantly related to drug use (Cooper et al., 1998; Gwadz et al., 2004; Kassel et al., 2007). However, Golder et al. (2005) did report similar findings; the anxiety dimension was not related to risk behavior, but the avoidance dimension did predict frequency of drinking alcohol and illicit drug use.

Future research will need to determine whether the results of the current study support the notion of less use among avoidant youth due to a deficiency in social skills (Collins & Read, 1990). Increased avoidance predicted a later age for first use of marijuana in this sample of adolescents suggesting that these youth may not have significant social relations (albeit potentially deviant). Also, others have posited that avoidant individuals can take on the behavior characteristics of both secure and anxious individuals (Cooper et al., 1998; Gentzler & Kerns, 2004; Schachner & Shaver, 2004). Those scoring high on attachment avoidance, especially adolescents, tend to avoid sex and drugs resulting in older ages at first experience/use leading to risk patterns similar to secure persons in their early years. However, after first exposure to risk and into adulthood, rates of participation tend to increase and begin to mirror that of anxious individuals. This may be due to a more relaxed and accepting view of these behaviors by avoidant individuals (Tracy et al., 2003).
Neither the avoidance nor anxiety dimension demonstrated any relationship with the sexual risk variables. The null findings between attachment and sexual risk behavior were surprising considering the abundance of research supporting this relationship (Cooper et al., 1998; Gentzler & Kerns, 2004; Schachner & Shaver, 2004). However, other studies have reported results at least partially consistent with the present study. Kershaw et al. (2007) found no relationship between avoidant attachment and seven sexual risk behaviors. Additionally, Golder et al. (2005) found no relationship between anxiety and risk behavior which included a sexual risk composite score.

The lack of significant outcomes in the present study may be explained by the sample characteristics or measurement issues. Not all of the youth in the sample were sexually active; therefore, the missing data coupled with a small initial sample size (73 youth) may have led to low power to detect significant differences. Furthermore, this study’s results were similar to those of Golder et al. (2005) which used the same attachment measure and scoring procedure. Golder and colleagues questioned the validity of the measurement of the anxiety dimension which consisted of only six questions in contrast to the twelve questions accounting for the avoidance dimension.

The third hypothesis, predicting a moderating relationship, was not supported. Abuse did not appear to moderate the relationship between attachment and risk behavior, although two variables (i.e., number of lifetime partners and percentage of days using marijuana in the period) approached significance in relationship to the avoidance dimension. One explanation for this result may be due to the lack of statistical power in the present sample. Two of the risk variables did approach significance, suggesting
statistical trends. Perhaps with a larger sample size and sufficient power, a true
moderating relationship would have emerged. Another possible explanation for the null
results may come from the variables used to assess abuse. Participants were asked about
their experiences with physical or sexual abuse. Other forms of abuse were not assessed
such as verbal or psychological abuse, or neglect which might have significant
relationships with the outcome measures (Smith, Smith, & Earp, 1999). Further, youth
may have under-reported past abuse experiences.

Limitations

The limitations of this study should be considered when interpreting the findings.
First, the study relied on a sample of convenience. Participants were recruited from one
runaway shelter in a Midwestern city; therefore, findings cannot generalize to at-risk
youth who did not utilize the shelter. Further, the results of this study may not be
generalizable to youth in other geographic areas. The small sample size also may have
affected the results due to low power. Traditionally, studies using the AAS have included
samples of 100 or more which are more appropriate for a cluster analysis. Additionally,
participants who were not sexually active (n = 16) further limited the analyses (by
reducing the sample size) as they could not be included in the regression equations.

A final limitation of the study is the reliance on self-report measures. The
tendency for respondents to provide socially desirable answers is always a concern when
obtaining data through surveys and questionnaires (Gentzler & Kerns, 2004). In the study
of attachment, especially, observational and interview data may be more advantageous as
research has demonstrated that individuals with certain attachment styles may
misrepresent themselves on the self-report questionnaires. For example, Creasey and Ladd (2004) documented the difficulty in assessing individuals with an avoidant attachment style as they tended to minimize negative aspects of their relationships.

Increasingly, researchers are opting to use computer-aided administration methods when collecting self-report data (Gribble, Miller, Rogers, & Turner, 1999) in an attempt to enhance the feeling of anonymity and comfort in responding truthfully. However, even with computer assisted methods, issues with the participants’ consistent and accurate recall remain (Gentzler & Kerns, 2004, Schachner & Shaver, 2004).

While weaknesses exist, the present study also presents notable strengths. A decade ago, Cooper and colleagues (1998) remarked on the lack of attachment research with at-risk adolescents, especially those under the age of 18. In 2007, Kershaw et al. noted a similar deficiency regarding research on high-risk populations and relational factors. The need for more research on at-risk youth, rather than convenient college student samples, and adolescent attachment has been established (Cooper et al., 1998); however, progress has been slow. The present study addressed both of these issues with a young (age 12-17), at-risk sample. Finally, in comparison to attachment research on sexual risk behaviors, the literature on attachment and substance use is substantially less. This study adds to the limited work on attachment and the substance use patterns of adolescents.

Future Directions

The current study addresses many of the gaps in knowledge affecting the study of adolescent attachment such as the use of homogenous, high functioning samples;
however, future research must continue to focus its efforts on high-risk adolescents. Little consensus exists in the current research in regard to attachment’s effect on risk behavior. While some find support for a strong relationship between risk behavior and both attachment dimensions, others, such as the current study, do not. More research with high-risk youth is needed to elucidate findings.

The reasons behind these conflicting results could have numerous sources, yet measurement issues are the most likely culprit. Since research on adolescent attachment is limited, measures created specifically to target youth attachment in romantic relationships do not exist. Consequently, researchers are forced to rely on the adult measures. Using adult measures with adolescents is common practice; however, such a practice may not be appropriate. Indeed, in defense of the use of self-report measures, researchers have noted the ability of adults to rely on an abundance of previous experience in relationships in order to accurately answer attachment questionnaires (Crowell et al., 1999); a skill that may not be fully developed in adolescence. Similarly, Weinfield and colleagues advocate more research on the reliability of assessing adolescents with measures initially designed for adults (2004).

Another methodological issue is the reliance on cross-sectional data. The majority of studies utilize cross-sectional designs making inferences about causation impossible. Longitudinal research would allow tests of the long-term significance of attachment effects on risk behavior. Results from this study indicate that avoidant youth delay their first use of marijuana until later ages. Previous research has suggested that avoidant youth may initially delay substance use, but after the first use, rates increase to the levels typical
in anxious adolescents (Tracy et al., 2003). Longitudinal research not only allows for the examination of this premise but also how other relationships between attachment and risk behavior change over time.

Conclusions

The current study adds to the sparse literature on adolescent attachment. In comparison to research previously done with this population, the results of this study indicate that a number of inconsistencies in the literature remain. Clearly, more work is needed with this population, yet the future is encouraging as interest in this area continues to grow. Only with focus and methodological rigor will we begin to bridge the gap between infant and adult attachment.


APPENDIX A

MEASURES
Demographic Interview (Adolescent)

Pretreatment

DEMOGRAPHICS:
1. Gender: M / F
2a. Date of Birth: ____________  2b. Age: ____________
3. Ethnic Group (Check one for subject, subject's birth mother, and subject's birth father):
   Adolescent  Adolescent's Birth Mother  Adolescent's Birth Father
   ____(1)  ____(1)  ____ (1)  American Indian or Alaskan Native
   ____(2)  ____ (2)  ____ (2)  Asian, Asian American, or Pacific Islander
   ____(3)  ____ (3)  ____ (3)  Black or African-American
   ____(4)  ____ (4)  ____ (4)  Hispanic, Cuban
   ____(5)  ____ (5)  ____ (5)  Hispanic, Mexican
   ____(6)  ____ (6)  ____ (6)  Hispanic, New Mexican (or Spanish-American)
   ____(7)  ____ (7)  ____ (7)  Hispanic, Puerto-Rican
   ____(8)  ____ (8)  ____ (8)  Hispanic, Other Latin American
   ____(9)  ____ (9)  ____ (9)  White, not of Hispanic origin
   ___(0)  ___(0)  ___(0)  Other
   If other ethnic group please specify:
   Adolescent: _____________________________
   Mother: ________________________________
   Father: ________________________________

4. Last Grade Completed: ________________
   Current GPA: ________________
   Special Ed: LD, BD ________________
   Currently enrolled?  Yes / No  School: __________________

5. In the last year, what was your primary living arrangement? (Check one):
   ____ (1) Alone in own house or apartment
   ____ (2) With spouse, domestic partner, or children in own house or apartment
   ____ (3) In a house or apartment with a friend or friends
   ____ (4) With parent(s) or guardian(s) in their house or apartment
   ____ (5) Homeless or living in temporary shelter
   ____ (6) With other relatives (specify) ______________________________
   ____ (7) With foster parents
   ____ (8) In jail
   ____ (9) Other (specify)

6. How many persons, including yourself were living in your home when you were growing up? ______

7. Have you ever been:
   a. Placed in a foster home? Yes / No
   b. Placed in a group home? Yes / No
   c. Kept in juvenile detention? Yes / No
   d. Kept in jail overnight? Yes / No
   e. A ward of the state? Yes / No

8. For how many years were you raised by:
   # Years
   1. __________ Both of your birth parents
   2. __________ Birth mother only
   3. __________ Birth mother plus partner (not birth father)
   4. __________ Birth father only
   5. __________ Birth father plus partner (not birth mother)
   6. __________ Other relatives (grandparents, aunt or uncle, etc.)
   7. __________ Adoptive parents
8. ____________ Foster parents
9. ____________ Institutions (group home, hospital, detention, shelter)
10. ____________ Other (Specify)

9. How many brothers or half-brothers do you have?
   _____ Number of full brothers (both parents in common)   _____ Number of half brothers
   (one common parent)
10. How many sisters or half-sisters do you have?
    _____ Number of full sisters (both parents in common)   _____ Number of half sisters (one
    common parent)
11. How many children do you have?
    _____ Biological sons
    _____ Biological daughters

   Are you currently expecting a baby (you or your partner is pregnant)?  When is the baby
due?  __________
12. How many times have you been married?   _____ times(s).
13. How many times has the primary caretaker been married?  _____ times(s).

14. Current Marital Status (Check one):
   Adolescent Primary Caretaker Adolescent's Birth Parents
   ___(1) Single, never been married ___(1) Single, never been married  ___(1) Never married
   ___(2) Currently legally married ___(2) Currently legally married  ___(2) Currently married
   ___(3) Cohabiting with partner ___(3) Cohabiting with partner  ___(3) Cohabiting
   ___(4) Separated but still married ___(4) Separated but still married  ___(4) Separated but still married
   ___(5) Divorced ___(5) Divorced  ___(5) Divorced

15. Employment Status (Check one for client and one for primary caretaker):
   Adolescent Primary Caretaker Other Adult Family Member
   (1) Work 40+ hours a week  ___  ___  ___
   (2) Fewer than 40 hours a week  ___  ___  ___
   (3) Homemaker  ___  ___  ___
   (4) Retired  ___  ___  ___
   (5) Unemployed  ___  ___  ___
   (6) Student  ___  ___  ___

   What is the adolescent's primary occupation (whether or not he/she is currently employed)?
   Adolescent  ______________________________________
   Primary Caretaker  _______________________________
   Other Adult Family Member  __________________________

16. What is your total annual family income?
   0-$5,000     $5,001-$15,000     $15,001-$30,000     $30,001-$45,000
   $45,001-$60,000 $60,001-$75,000 $75,001 or above

17. What is each of your highest level of education?
   Adolescent Primary Caretaker Other Adult Family Member
   ___  ___  ___  0) Unknown
   ___  ___  ___  01) First grade
   ___  ___  ___  02) Second grade
   ___  ___  ___  03) Third grade
   ___  ___  ___  04) Fourth grade
   ___  ___  ___  05) Fifth grade
   ___  ___  ___  06) Sixth Grade  For GED recipients, check
   ___  ___  ___  07) Seventh grade  the number of years of
   ___  ___  ___  08) Eighth grade  formal education actually
### 18. What degrees do family members have?

<table>
<thead>
<tr>
<th>Adolescent</th>
<th>Primary Caretaker</th>
<th>Other Family Member</th>
</tr>
</thead>
<tbody>
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</table>

- 0) No degree
- 1) Graduate Equivalent Degree (GED)
- 2) High School Diploma
- 3) Trade School Certificate
- 4) Associate Degree
- 5) Bachelor's Degree
- 6) Masters Degree
- 7) Doctoral Degree
- 8) Unknown

### LEGAL:

19. Have you ever been ARRESTED? Yes / No How many times?

List incidents (from most recent); include charges, date, status (conviction, probation), and whether alcohol or other drugs were involved:

<table>
<thead>
<tr>
<th>Charge</th>
<th>Date</th>
<th>Status</th>
<th>Alcohol/Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
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<td>B.</td>
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<td>C.</td>
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<td>D.</td>
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</table>

20. Do you have a JPPO/Case Worker/Case manager? Yes / No Which?
21. Are you involved in a GANG? Yes / No
   Have you been ranked in? Yes / No
   Which gang are you a member of? __________________________
   How often are you involved in fights? ______________________

**PREVIOUS RUNAWAY EPISODES:**
22. How many times have you run away? ________________
   Please list all times you have runaway, where you ran from, where you stayed and reasons for running.
   
<table>
<thead>
<tr>
<th>Date</th>
<th>Ran From (e.g. home):</th>
<th>Where Stayed:</th>
<th>Reasons for Running:</th>
<th>How Long Homeless</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
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<td>D.</td>
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</table>

**MENTAL HEALTH TREATMENT:**
23. Have you ever been hospitalized, INPATIENT, for SUBSTANCE abuse treatment? Yes / No
   Describe: How many times?________
   Where, when, duration of stay:

24. Have you ever been hospitalized, INPATIENT, for EMOTIONAL difficulties? Yes / No
   Describe: How many times?________
   Where, when, duration of stay:

25. Have you ever received OUTPATIENT treatment for ALCOHOL/DRUG issues? Yes / No
   Describe where, when, duration of treatment:

26. Have you ever received OUTPATIENT treatment for other EMOTIONAL problems? Yes / No
   Describe where, when, duration of treatment:

27. Have there been times when you couldn’t remember what you did while drinking? Yes / No
(e.g., your friends told you later what you did, or you woke up not knowing how you got somewhere)
About how often has this happened to you?
___almost every time I drink
___most of the times that I drink
___about half of the times that I drink
___less than half of the times that I drink
___once in a while
___once or twice in my lifetime

28. Is there evidence that DETOX is needed? Yes / No

ASSSESSMENT OF DANGER:
29. Have you ever tried to harm yourself, commit SUICIDE, or placed yourself in dangerous or life-threatening situations? Yes / No
How many times? _______
A) Please describe when, reasons, what happened (hospitalized?):

B) Have you had thoughts of harming yourself recently (in the last few weeks)? Yes / No
Do you have a plan? Y / N Describe:

Do you have access to what you need to do that? Y / N Describe:

What are your reasons for wanting to die?

What stops you from killing yourself?

30. HOMICIDAL IDEATION: Is there anyone you seriously want to harm? Yes / No
Do you have a plan? Y / N Describe:

Do you have access to what you need to do that? Y / N Describe:

Who is this person?

Do you know how to find this person? Y / N Describe (address/phone):
What stops you from harming this person?

31. Has anyone ever touched you SEXUALLY in a way that made you feel uncomfortable OR hurt you OR was against your will?  
   Yes / No
   How many times? _________
   Is this happening currently?  
   Yes / No
   Was the abuse reported to the authorities?  
   Yes / No
   Describe the circumstances (when, who, duration of abuse):

32. Has anyone ever hurt you PHYSICALLY (enough to leave marks or bruises or burns)?  
   Yes / No
   Was the abuse reported to the authorities?  
   Yes / No
   Is this happening currently?  
   Yes / No
   Describe the circumstances (when, who, duration of abuse):

HOMELESS EXPERIENCES:

33. Over the last 30 days, how many nights did you spend:
   Nights
   a. In your own room or apartment? _________
   b. With family members in their home? _________
   c. With friends in their home? _________
   d. In a shelter of mission? _________
   e. In abandoned buildings or squats? _________
   f. In jail? _________
   g. Someplace else indoors, such as in a bus or train station, or at an airport? _________
   h. Someplace outdoors, such as on the street, or in a park or alley? _________
   i. Anyplace I haven't mentioned? _________  Please specify:

34. When was the last time you lived in an apartment, room, or house (other than a shelter) for 30 consecutive days or longer?
   Within last month 7-12 months ago
   1-3 years ago
   1-6 months ago
   More than 3 years ago

35. Where and with whom did you live?
   _____________________________________________________________

36. How old were you when you left there the last time? _________ years old.
37. Why did you leave or were you asked to leave? ____________________________________________

38. Altogether, how many different times have you not had a place to live? That is, times when you didn’t have a room, apartment or home where you could sleep. ________ times.

38a. How old were you the first time you did not have a place to live? ________ years old.

39. What is the main reason you do not have a place to live right now?
__________________________________________________________

40. In the past 30 days was:
a. Getting enough to eat a problem for you? Yes / No
b. Getting clothes a problem for you? Yes / No
c. Getting medical care a problem for you? Yes / No
d. Finding a place where you could clean up a problem for you? Yes / No

41. In the last 12 months, have you had any physical health problems you needed medical care for that you did not get? Yes / No
a. What were the main reasons you didn’t receive medical care for (this/these) problems?
_______________________________________________________

INCOME SOURCES AND OTHER SUPPORTS:

42. During the last 30 days, did you get any money from:
a. A full or part-time job? Yes / No
b. Doing any other kind of work, including day labor, seasonal, minimum wage or pick up work? Yes / No
c. Friends? Yes / No
d. Relatives? Yes / No
e. Panhandling? Yes / No
f. Clothing and other personal possessions that you sold? Yes / No
g. Collecting and selling bottles and cans? Yes / No
h. The sale of your blood or plasma? Yes / No
i. Dealing drugs? Yes / No
j. Prostitution? Yes / No
k. An agency or program? Yes / No
l. Stealing? Yes / No
m. Anything else I haven’t mentioned? Yes / No Specify: ______________________

VICTIMIZATION EXPERIENCES:

43. Now I’d like to ask about any crimes that may have been committed against you. In the last 12 months, have you been:
a. Assaulted or physically attacked? Yes / No
b. Robbed, that is, was something taken from you by someone who threatened you with violence if you didn’t give it to them? Yes / No
c. Burglarized, that is, has someone broken into your room or apartment and taken some of your property? Yes / No
d. Have you been raped? Yes / No
e. Have you been sexually assaulted, other than rape? Yes / No
f. Have you been the victim of another crime? Yes / No

44. In order to keep yourself from being harmed in any way, do you:
a. Carry a weapon? Yes / No Specify: ______________
b. Stay away from certain places?  
   Yes / No

c. Stay away from people?  
   Yes / No

d. Sleep during the day and stay awake at night?  
   Yes / No

e. Make sure you’re always with someone you can trust?  
   Yes / No

f. Do you do anything else to keep from being harmed?  
   Yes / No  
   Specify:___________
Form 90-DI

DRUG USE ASSESSMENT (Intake)

1. For period from ____/____/____ through ____/____/____

2. Number of days in this assessment period: ____/____/____

3. This is: (0) Pretreatment

4. ____(1) Male  ____(2) Female

5. Current body weight in pounds: ____/____/____

6. Weight obtained by: ___(1) weighing or ___(2) self-report

7. This interview was conducted:

___(1) on site   ___(2) by telephone
___(3) home visit   ___(4) other location

8. Presenting drug_______

“I’d like to begin by reminding you that whatever you say here is confidential. In this first interview, I am going to be asking you some specific questions about your drug use in the 90 days before your last use. I’ll be asking about drugs that were prescribed for you as well as others that you have used during this period. [Place calendar in front of client]. Here is a calendar to help you remember this period of time. First of all, when was the last time that you used any drug? [Drug is as defined above; count back 89 days and cross out with X’s the days preceding the period]. So the period I’m going to be asking you about is from [beginning date] up through [end date].

“I realize that this is a long period of time to remember things that happened, so we will use this calendar to help you identify events that occurred during this period. Notice that a few events are already printed on the calendar. [Point out some specific events already printed on the calendar]. Were there any particularly memorable things that happened during this time – any birthdays, illnesses, or accidents, anniversaries, parties, hospitalizations, vacations, changes in your work or at home, things like that?”[Record on calendar.]

“Now the rest of the questions that I will ask you are also about this time period from ____ up through _____. I’ll be asking you about your drug use in a few minutes, but first I’d like to know about a few other things. Feel free to take you time in answering, since it is
important for you to remember as accurately as you can. Let me know if you’re not sure what I am asking, or what I mean by a particular question. OK?”

TREATMENT / INCARCERATION / LIVING EXPERIENCES

“During this period, how many days did you spend in a hospital or treatment program where you stayed overnight?” [Mark days on calendar]

Hm  total number of hospital days for medical problems  9. ____

Htox  total number of hospital days for detoxification  10. ____

Rtox  total number of non-hospital residential detox days  11. ___

Total number of ambulatory detox treatment days  12. ___

Rd  total number of residential days for other drug problems  13. ____

Ra  total number of residential days alcohol treatment  14. ____

Rp  total residential days for emotional / psych problems  15. ____

Total days in residential treatment during this period:
[Sum of 9 + 10 + 11 + 13 + 14 + 15. Do not include 12]  16. ____

“During this period, did you spend any time in jail or prison?”
[Mark on calendar]

In  total days incarcerated during period  17. ____

Total days in institutions [add 16 + 17]  18. ____

“During this period, where did you live? How many days did you live in: ” [Do not record on calendar unless useful as memory aids.]

Total number of days in own house, apartment, room:  19. ____

Total number of days living with others (no rent):  20. ____

Total number of days living in halfway house:  21. ____

Total number of days homeless (shelters, etc.):  22. ____

Lines 18 + 19 + 20 + 21 + 22 must equal line 2  ____

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“During this period, how many days were there [not including hospital or detox days] when you say a doctor, nurse, nurse-practitioner, or physician’s assistant for any kind of medical care?”
[Do not record on calendar unless useful as memory aids.]

Total days seen for medical care 23. ___

“During this period, on how many days did you have a session with a counselor or therapist?” [Do not record on calendar unless useful as memory aids.]

Total number of days for drug problems (EXCEPT alcohol) Write down the drug or drugs 24. ___
If treatment was received, describe briefly:

Total number of days for alcohol problems 25. ___
If treatment was received, describe briefly:

Total days for emotional / psychological problems 26. ___
If treatment was received, describe briefly:

“During this period, on how many days did you attend a Twelve-Step meeting like NA, CA, or AA?:”
[Do not record on calendar unless useful as memory aids.]

Total number of days attending 12-step meetings: 27. ___
[enter 0 if none]
OTHER ACTIVITIES

[Do not enter activity days on calendar unless they appear to be of value for recalling drinking.]

WORK:  “How many days have you been paid for working during this period?”  WORK days  28. ____

EDUCATION:  “How many days have you been in School or training during this period?”
            EDUCATION days  29. ____

RELIGIOUS ATTENDANCE:  “On how many days during this time Did you attend a worship service or other religious Celebration?”
            RELIGIOUS ATTENDANCE days  30. ____

MEDICATIONS

“How many days did you take any medications prescribed by a physician?”  [Do not enter medication days on the calendar unless they appear to be of memory value.]

To treat a medical problem  31. ____
    Specify:

To prevent you from drinking (Antabuse only)  32. ____

To help you detoxify / come off drugs or alcohol  33. ____
    Specify:

To help you stabilize or change your use of drugs  34. ____
    Specify:
        Maintaining / stabilizing drugs (e.g., methadone)
        Serotonin uptake inhibitors (make sure not for depression)

To help you keep from using drugs  35. ____
    Specify:
        Drug antagonists / blockers

For psychological or emotional problems  36. ____
Specify:

**DRUG ASSESSMENT**

Card Sort

“Now I am going to show you this set of cards. Each card names a kind of drug that people sometimes use. I’d like you to sort them into two piles for me. In one pile here [indicate position and use marker card] I’d like you to place those cards that name a kind of drug that you have tried at least once in your life. In the other pile [indicate position and use marker card], place the cards that name the types of drugs that you have never used at all.”

[Give card to client IN NUMERICAL ORDER – with Alcohol on top, Tobacco next, Marijuana next, and so on. When the sorting has been completed, take the pile on the right, and check all these categories a “NO” in the LIFETIME USE column below. For convenience, record here the client’s CURRENT AGE: _______

<table>
<thead>
<tr>
<th>DRUG TYPE</th>
<th>Lifetime Use Ever?</th>
<th>Age at First Use</th>
<th>Lifetime weeks of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol (al)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco (to)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marijuana (ma)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tranquilizers (tr)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedatives/Downers (do)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steroids (sd)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stimulants/Uppers (up)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine (co)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hallucinogens (ha)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opiates (op)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalants (in)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other drugs (xx)</td>
<td>( ) 0 No ( ) 1 Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Then continue with “Yes” pile:

“Now for each of these types of drugs, I’d like you to give me an estimate of how long you have used them in your lifetime. What I will want to know is: about how many weeks during your lifetime have you used each type of drug at least once.

Let’s start with _________[Use first YES card from numerical sequence]. How many weeks, during your lifetime, would you say that you used ________ at least once?”
[Record responses on the chart on Page 5. Convert all responses into weeks. Year = 52 weeks if used every week. Month = 4 weeks, etc. Repeat the query for each YES drug card. Then give YES pile back to client.]

**Periods of Abstinence**

“Now I’d like to ask you about your drug use during this same period we were discussing before. The things already recorded on the calendar here may help you to remember better. I’m not asking here about drugs that were prescribed for you for medical problems, like antibiotics, stomach or blood pressure medicine. I’m asking about drugs not prescribed for you, although, I do want to know about any medication prescribed for pain, or to help you relax or sleep. I will also ask you about your use of alcohol. First of all, were there any periods of days during this time when you used no drug (including alcohol) at all?”

[Mark all abstinent days with a capital “A” on calendar.]

37. Date of first drug use during period: ____/____/____

Drug:

38. Date of last drug use during the period: ____/____/____

Drug:

Give back the YES pile and say:

“Now I’d like you to sort these cards again, to say which kinds of drugs you have used at least once during the period we’ve been talking about on this calendar, from ____ through _____. If you used the drug at least once during this time, put it in a pile on the left here, and if you never used it at all during this period, put it on the right.”

[Alternatively, if there are few cards simply ask: “Which of these have you used at least once during this period we’ve been talking about?”]

For each NO card in this sort, print a zero (0) under “Total Days Use in Period” on the USE PATTER CHART on Page 7. For the remainder, proceed with the CALENDAR instructions on Page 8.
## USE PATTERN CHART

<table>
<thead>
<tr>
<th>Drug Classes</th>
<th>Used in this period?</th>
<th>Total Days</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Oral Ingest</th>
<th>Smoke</th>
<th>Nasal Inhale</th>
<th>Needle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>al</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
<tr>
<td>Tobacco</td>
<td>to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
<tr>
<td>Marijuana/ Cannabis</td>
<td>ma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
<tr>
<td>Tranquilizer</td>
<td>tr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
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</tr>
<tr>
<td>Sedatives/ Downers</td>
<td>do</td>
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</tr>
<tr>
<td>Steroids</td>
<td>sd</td>
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<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
<tr>
<td>Stimulants/ Uppers</td>
<td>up</td>
<td></td>
<td></td>
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<td>------</td>
<td></td>
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</tr>
<tr>
<td>Cocaine</td>
<td>co</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>ha</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
<tr>
<td>Opiates</td>
<td>op</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Inhalants</td>
<td>in</td>
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<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
<tr>
<td>Other Drugs</td>
<td>xx</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>------</td>
<td></td>
<td>------</td>
</tr>
</tbody>
</table>

Use Categories:
1 = Single use
2 = Several uses
3 = Steady or heavier use
Enter days of each type of use. 1 + 2 + 3 must equal Total Days of use. Enter days of each route of administration. These must total at least to the number of days of use, but total may be higher if multiple routes of administration were used on the same day.

"Now I’d like to ask you about each of the drugs that you have used during this period. I’d want to get an idea of what your pattern of use was during this period of time for each of these drugs. We’ll use this calendar to make it easier. Let’s start with _______________. When were you using _______________ during this period?"

Proceed drug by drug, entering drug codes for each day of use. For a day on which alcohol, marijuana, and cocaine were used, for example three codes would be entered into the box for that day: al, ma, co. Using different colored pencils for different drugs can be helpful.

Using the calendar, carefully count the total number of days of use during the assessment period for each drug class, and put this information on the USE PATTERN CHART (Page 5).

"Now I’m going to go back through these drugs once again and ask you two more question about each. For each one, I will tell you the total number of days that you said you used this drug during this period, and I will want to know how many of those days you think fell into each of these three categories."

"According to the calendar we did, you used _______ on a total of ____ days during this period. Help me divide those days up among these three categories. On how many of those _______ days would you use ______ only once? How many of those days did your use fall in between? And that would mean that on _______ days your use of _______ fell in this third category – does that seem right? And how did you give yourself (take) ______ during this period of time? Any other way? If more than one route of administration for a drug class ask:

"According to the calendar we did, you used _______ on a total of _______ days during this period. On how many of those _______ days would you say that you gave yourself ____[drug]____ by ____[route]___?"

Repeat for each drug class. Be sure you have accounted for all days of use. The total across routes of administration should be at least the same as the number of days of use, although the total may be higher if multiple routes are used on the same day.
Fill in the information of the Use Pattern Chart. Be sure 1 + 2 + 3 totals to the number of
days of use.
When you have completed the calendar for all drug classes used, show the subject the
CONFIDENCE SCALE and ask:

“Now I’d like you to tell me, using the line, how confident you feel about the
information you’ve given me about your drug use. How accurate do you think you
have been in estimating your drug use on this calendar? I’m not asking if you got
each drug on the exact days you used it. But overall, how accurate is this
calendar in showing how much you used drugs during this period?”

Circle the subject’s response below.

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Accurate</td>
<td>Fairly Accurate</td>
<td>Not at all Accurate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CATEGORIES FOR DAYS OF USE

(1) Single use. On this day you used the drug only once.

Examples: One alcoholic drink
One cigarette
One dose

(2) Medium use. On this day you used the drug more than once, but not steadily
or heavily

Examples: 2-4 drinks
2-9 cigarettes
Two doses of other drugs

(3) Heavier use. On this day you used the drug more heavily than the “medium”
category.

Examples: 5 or more drinks
10 or more cigarettes (half a pack or more)
Three or more doses of other drugs

WAYS OF TAKING DRUGS

Orally Eating, drinking, swallowing, placing the drug under the tongue,
chewing, dipping
Smoking Lighting and smoking the drug
Inhaling Snorting, breathing in the drug (but not smoking)
Injecting  
Taking a drug by needle; injecting under the skin or into a vein

CONFIDENCE SCALE

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very Accurate</td>
<td>Fairly Accurate</td>
<td>Not at all Accurate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

59
HEALTH RISK QUESTIONNAIRE-Revised

1. Have you ever injected (shot up) cocaine, heroin or other illegal drugs into your body?
   - Yes  □  No  □  .....IF "NO," SKIP TO QUESTION #6

2. In the last 12 months, have you injected (shot up) cocaine, heroin, or other illegal drugs into your body?
   - Yes  □  No
   2a. How about in the last 3 months?
   - Yes  □  No

3. Have you ever shared needles used to inject (shoot up) drugs? □ Yes  □ No
   3a. If YES, how often have you done anything to clean the needle after someone else has used it?
   - Almost always □  Most of the time □  About half of the time □
   - Some of the time □  Hardly ever □  Never

4. If YES, in the last 12 months, have you shared needles used to inject (shot up) any drugs?
   □ Yes  □ No
   4a. How about in the last 3 months?
   □ Yes  □ No
   4b. If YES, with how many different people in the last 12 months? _____ People
   4c. If YES, with how many different people in the last 3 months? _____ People
   4d. In the last 12 months, how often did you do anything to clean the needle after someone else has used it?
   - Almost always □  Most of the time □  About half of the time □
   - Some of the time □  Hardly ever □  Never
   4e. In the last 3 months, how often did you do anything to clean the needle after someone else has used it?
   - Almost always □  Most of the time □  About half of the time □
   - Some of the time □  Hardly ever □  Never

5. Have you ever shared a cooker or cotton, or divided up drugs by using one syringe?
   □ Yes  □ No
   5b. If YES, in the last 12 months?
   □ Yes  □ No
   5c. If YES, in the last 3 months?
   □ Yes  □ No

60
We want to find out what teenagers think about AIDS and what they know about AIDS. You need to understand two related words used in this survey: **AIDS** and **HIV**. AIDS stands for Acquired Immunodeficiency Syndrome. AIDS is caused by the virus, HIV. HIV stands for Human Immunodeficiency Virus. HIV is the virus that causes AIDS.

6. Do you know where to get good information about AIDS/HIV infection?
   - [ ] Yes
   - [ ] No
   - [ ] Not Sure

7. Do you know where to get tested to see if you are infected with the AIDS virus (HIV)?
   - [ ] Yes
   - [ ] No
   - [ ] Not Sure

8. Do you know how to keep from getting the AIDS virus (HIV)?
   - [ ] Yes
   - [ ] No
   - [ ] Not Sure

9. Have you ever talked about AIDS/HIV infection with a friend?
   - [ ] Yes
   - [ ] No

10. Have you ever talked about AIDS/HIV infection with your parents/other adults in your family?
    - [ ] Yes
    - [ ] No

11. Do you ever worry about getting AIDS/HIV infection yourself?
    - [ ] Yes
    - [ ] No

**CAN A PERSON GET AIDS/HIV INFECTION FROM:**

12. Holding hands with someone?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

13. Sharing needles used to inject (shoot up) drugs?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

14. Being bitten by mosquitos or other insects?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

15. Donating blood?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

16. Having a blood test?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

17. Using public toilets?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

18. Having sexual intercourse without a condom (rubber)?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

19. Being in the same class with a student who has AIDS/HIV infection?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

20. Can you tell if people are infected with the AIDS virus (HIV) just by looking at them?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure

21. Can a person who has the AIDS virus (HIV) infect someone else during sexual intercourse?
    - [ ] Yes
    - [ ] No
    - [ ] Not Sure
22. Is it true that only homosexual (gay) men can get AIDS/HIV infection?
   ☐ Yes   ☐ No   ☐ Not Sure
23. Is there a cure for AIDS/HIV infection?   ☐ Yes   ☐ No   ☐ Not Sure
24. Can a pregnant woman who has the AIDS virus (HIV) infect her unborn baby with the virus?
   ☐ Yes   ☐ No   ☐ Not Sure

**CAN PEOPLE REDUCE THEIR CHANCES OF BECOMING INFECTED WITH THE AIDS VIRUS (HIV):**
25. By not having sexual intercourse (being abstinent)?
   ☐ Yes   ☐ No   ☐ Not Sure
26. By using condoms (rubbers) during sexual intercourse?
   ☐ Yes   ☐ No   ☐ Not Sure
27. By not having sexual intercourse with a person who has injected (shot up) drugs?
   ☐ Yes   ☐ No   ☐ Not Sure
28. By taking birth control pills?   ☐ Yes   ☐ No   ☐ Not Sure
29. Which of these terms best describes how you see yourself: Do you think of yourself as:
   _______ Straight _______ Gay/Lesbian _______ Bisexual _______ Transgendered _______ Unsure
30. Have you ever had sex with someone?
   ☐ Yes   ☐ No .....IF "NO", GO ON TO QUESTION #55
31. How old were you the first time you had sexual intercourse? ________ years old
32. That first time you had sex, did you or your partner use some/any kind of birth control or contraception?
   ☐ Yes   ☐ No   ☐ I don't remember
33. With how many people have you had sexual intercourse in your life?
   _______ people
34. With how many people have you had sexual intercourse in the past 12 months?
   _______ people
   34a. How many in the last 3 months?
   _______ people
35. With how many men have you had sex with in the past 12 months?
   _______ men
   35a. How many in the last 3 months?
   _______ people
36. With how many **women** have you had sex with **in the past 12 months**?
    _____ women

36a. How many **in the last 3 months**?
    _____ people

37. How many **times** have you had sexual intercourse **in the past 12 months**?
    _____ times

37a. How many **times** in the last 3 months?
    _____ times

38. What was the gender of your last sex partner?   □ Male   □ Female

39. Have you ever engaged in casual sex, such as non-monogamous sex, a one night stand, or sex with someone who you didn’t intend to have a relationship with?  (Do not include prostitution)
    □ Yes   □ No

39a. If YES, in the last 12 months?   □ Yes   □ No

39b. If YES, in the last 3 months?   □ Yes   □ No

40. Have you **ever** had sex with more than one partner within a 24-hour time span?
    □ Yes   □ No

40a. If YES, in the last 12 months?   □ Yes   □ No

40b. If YES, in the last 3 months?   □ Yes   □ No

41. As far as you know, have you ever had sex with:

41a. Anyone who has ever worked as a prostitute?
    □ Yes   □ No   □ I don't know

41b. A drug user who shoots-up (someone who uses needles?)
    □ Yes   □ No   □ I don't know

41c. Someone who had AIDS?
    □ Yes   □ No   □ I don't know

41d. If YES to any of the above, within **the past 12 months**?
    □ Yes   □ No   □ I don't know

41e. If YES to any of the above, within **the past 3 months**?
    □ Yes   □ No   □ I don't know

42. Did these sexual activities cause you problems at home?   □ Yes   □ No

43. Have you ever had an STD or Venereal Disease (any sexually transmitted disease)?
    □ Yes   □ No
44. Have you ever engaged in anal sex?
   □ Yes     □ No
44a. If YES, were you: □ anal receptive     □ anal insertive     □ both
44b. Have you engaged in anal sex in the last 12 months? □ Yes     □ No
44c. Have you engaged in anal sex in the last 3 months? □ Yes     □ No
44d. If YES, were you: □ anal receptive     □ anal insertive     □ both

45. The last time you had sex with someone, did you or your partner use a condom or rubber?
   □ Yes     □ No     □ I don't know

46. When you have sex, do you or your partner usually use a condom or rubber?
   □ Yes     □ No
46a. If YES, do you always use a condom? □ Yes     □ No
46b. If NO, how often do you or your partner use a condom?
   □ Sometimes     □ Rarely     □ Never

47. Have you ever engaged in “survival sex”? That is, the exchange of sex for drugs, food, shelter, or clothing? □ Yes     □ No
47a. If YES, have you engaged in “survival sex” in the past 12 months?
   □ Yes     □ No
47b. If YES, have you engaged in “survival sex” in the past 3 months?
   □ Yes     □ No

PREGNANCY AND BIRTH CONTROL

48. How often, in the last 12 months, did you or your opposite sex partner(s) use some type of birth control during sexual intercourse? That is, anything to prevent pregnancy (Do not include same-sex partners, oral sex, or sex during pregnancy)?
   □ Almost always     □ Most of the time     □ About half of the time
   □ Some of the time     □ Hardly ever     □ Never     □ N/A
48a. How about in the last 3 months?
   □ Almost always     □ Most of the time     □ About half of the time
   □ Some of the time     □ Hardly ever     □ Never     □ N/A

49. If YES, which of the following did you use (check all that apply)?
   □□ the pill     □□ sponge     □□ anything else? specify
   □□ condoms     □□ pulling out or withdrawal     □□ N / A
49a. If / when contraception was not used, what was the reason?_______________________

50. **[MALES ONLY]**: As far as you know, have you ever gotten a girl pregnant?
   - Yes  
   - No  
   - I don’t know

51a. How many times have you gotten a girl pregnant?______ times.  
   - I don’t know
51b. Are you currently expecting a child?  
   - Yes  
   - No
51c. How far along in the pregnancy is the mother of your child?______ weeks

51. **[FEMALES ONLY]**: How many times have you been pregnant (including live births, still births, miscarriages and abortions)? _______ times.  
   - I don’t know
51a. Are you currently pregnant?  
   - Yes  
   - No  
   - If YES, how long have you been pregnant? ______ weeks
51b. How many times have you given birth? ______ times.
51c. How old were you the FIRST time you got pregnant. ______ years old
51d. Were you first pregnant before you left home, or after?  
   - Before  
   - After  
   - I don’t know

**BECAUSE OF ALL THE WORRY ABOUT AIDS:**

52. Do you have sex less often than you used to?  
   - Yes  
   - No
53. Do you use condoms (rubbers) more of the time than you did before?  
   - Yes  
   - No
54. Are you having sex with fewer partners than before?  
   - Yes  
   - No
55. Have you ever been tested for HIV or AIDS?  
   - Yes  
   - No
55a. If YES, how many times in your life have you been tested? ______ times
55b. When was the last test?  
   - within the last month  
   - within the last 6 months  
   - within the last year
   - within the last 2 years  
   - within the last 3 years  
   - longer than 3 years ago

55c. What were the most recent results?  
   - HIV-negative  
   - HIV-positive  
   - I don’t know

56. As far as you know, have you ever been directly exposed to AIDS?  
   - Yes  
   - No  
   - I don’t know

65
56a. If YES, how did you get exposed to AIDS?

57. Has your current (or most recent) sexual partner been tested for HIV/AIDS?
   - Yes
   - No
   - I don't know
   - N/A

57a. If YES, what were the results?
   - HIV-negative
   - HIV-positive
   - I don't know

58. If you found out that you had AIDS, would you tell a sexual partner(s)?
   - Yes
   - No
   - I don't know
The Revised Adult Attachment Scale

Please read each of the following statements and rate the extent to which it describes your feelings about romantic relationships. Please think about all your relationships (past and present) and respond in terms of how you generally feel in these relationships. If you have never been involved in a romantic relationship, answer in terms of how you think you would feel.

Please use the scale below by placing a number between 1 and 5 in the space provided to the right of each statement.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all characteristic of me</td>
<td>Very characteristic of me</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) I find it relatively easy to get close to people. ________
2) I find it difficult to allow myself to depend on others. ________
3) I often worry that romantic partners don't really love me. ________
4) I find that others are reluctant to get as close as I would like. ________
5) I am comfortable depending on others. ________
6) I don’t worry about people getting too close to me. ________
7) I find that people are never there when you need them. ________
8) I am somewhat uncomfortable being close to others. ________
9) I often worry that romantic partners won’t want to stay with me. ________
10) When I show my feelings for others, I’m afraid they will not feel the same about me. ________
11) I often wonder whether romantic partners really care about me. ________
12) I am comfortable developing close relationships with others. ________
13) I am uncomfortable when anyone gets too emotionally close to me. ________
14) I know that people will be there when I need them. 

15) I want to get close to people, but I worry about being hurt. 

16) I find it difficult to trust others completely. 

17) Romantic partners often want me to be emotionally closer than I feel comfortable being. 

18) I am not sure that I can always depend on people to be there when I need them.
<table>
<thead>
<tr>
<th>Variable</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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</tr>
<tr>
<td>Male</td>
<td>40</td>
</tr>
<tr>
<td>Female</td>
<td>60</td>
</tr>
<tr>
<td>Age</td>
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<td>15</td>
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<td>16</td>
<td>26</td>
</tr>
<tr>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>Ethnicity</td>
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<tr>
<td>African American</td>
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<tr>
<td>White</td>
<td>25</td>
</tr>
<tr>
<td>Hispanic</td>
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<tr>
<td>Other</td>
<td>5</td>
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<tr>
<td>Living Arrangement</td>
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</tr>
<tr>
<td>Alone in own house or apartment</td>
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</tr>
<tr>
<td>With spouse, partner, or children</td>
<td>3</td>
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<tr>
<td>With friends in their home</td>
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<tr>
<td>With parents/guardians in their home</td>
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<tr>
<td>Homeless, or living in a shelter</td>
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<tr>
<td>With other relatives</td>
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<tr>
<td>In jail</td>
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<tr>
<td>Other</td>
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<td>Family Income</td>
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<td>$75,001 or above</td>
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<tr>
<td>Parent/Guardian Marital Status</td>
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<td>Single, never married</td>
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<tr>
<td>Currently legally married</td>
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<tr>
<td>Cohabitating with partner</td>
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<tr>
<td>Separated, but still married</td>
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<tr>
<td>Divorced</td>
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<tr>
<td>Widowed</td>
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</table>

Figure B.1: Demographic characteristics of participants
Table B.2: Results of simple linear regressions

<table>
<thead>
<tr>
<th></th>
<th>Avoidance</th>
<th></th>
<th>Anxiety</th>
<th></th>
</tr>
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<tbody>
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<td></td>
<td>B</td>
<td>$R^2$</td>
<td>$\beta$</td>
<td>$R^2$</td>
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<tr>
<td>Age at first intercourse</td>
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<td>-.003</td>
<td>.200</td>
<td>.023</td>
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<tr>
<td># of lifetime partners</td>
<td>-.033</td>
<td>-.017</td>
<td>-.078</td>
<td>-.012</td>
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<tr>
<td>% days of alcohol use</td>
<td>-.930</td>
<td>-.005</td>
<td>-.120</td>
<td>.001</td>
</tr>
<tr>
<td>% days of marijuana use</td>
<td>-.022</td>
<td>-.014</td>
<td>-.034</td>
<td>-.013</td>
</tr>
<tr>
<td>Age at first use alcohol</td>
<td>.088</td>
<td>-.009</td>
<td>.201</td>
<td>.025</td>
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<tr>
<td>Age at first use marijuana</td>
<td>.389*</td>
<td>.130</td>
<td>.162</td>
<td>.011</td>
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</table>

*p ≤ .001

Figure B.2: Results of simple linear regressions

Table B.3: Correlations among variables

<table>
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<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>Age at first intercourse</td>
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<td>.610</td>
<td>.448</td>
<td>.063</td>
<td>.001***</td>
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<tr>
<td># of lifetime partners</td>
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<td>.497</td>
<td>.327</td>
<td>.370</td>
<td>.954</td>
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<tr>
<td>% days alcohol use</td>
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<td>.497</td>
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<td>.507</td>
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<td>.537</td>
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<tr>
<td>% days marijuana use</td>
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<td>.327</td>
<td>.507</td>
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<td>.028*</td>
<td>.071</td>
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<tr>
<td>Age at first use alcohol</td>
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<td>.370</td>
<td>.809</td>
<td>.028*</td>
<td></td>
<td>.000**</td>
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<tr>
<td>Age at first use marijuana</td>
<td>.001***</td>
<td>.954</td>
<td>.537</td>
<td>.071</td>
<td>.000**</td>
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</table>

*p ≤ .05; **p ≤ .001

Figure B.3: Correlations among variables
<table>
<thead>
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<th></th>
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<th>$SD$</th>
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<tbody>
<tr>
<td>Age at first intercourse</td>
<td>13.21</td>
<td>1.93</td>
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<tr>
<td># of lifetime partners</td>
<td>4.77</td>
<td>3.84</td>
</tr>
<tr>
<td>% days alcohol use</td>
<td>3.41</td>
<td>4.52</td>
</tr>
<tr>
<td>% days marijuana use</td>
<td>25.27</td>
<td>26.76</td>
</tr>
<tr>
<td>Age at first use alcohol</td>
<td>13.00</td>
<td>2.31</td>
</tr>
<tr>
<td>Age at first use marijuana</td>
<td>13.06</td>
<td>1.98</td>
</tr>
</tbody>
</table>

Figure B.4: Means and standard deviations of dependent variables

![Diagram](attachment.png)

Figure B.5: Theoretical model of moderating effect of abuse