



ATTACHMENT STYLES AND RISKY SEXUAL BEHAVIORS IN ADOLESCENTS

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Abstract

Infection with sexually transmitted diseases and unwanted pregnancies are risks associated with adolescents' risky sexual behavior. Mental models of attachment relationships influence behavior and may influence adolescents' involvement in sexual activities that are risky. This study explored whether attachment styles predicted adolescents' involvement in risky sexual behavior. A correlational study design was adopted with 367 students from public secondary schools in Nairobi County taking part in the study. The Attachment Styles Questionnaire and Risky Sexual Behavior Scale were used to collect data. Multiple regression analysis was used to determine whether secure, preoccupied, dismissing or fearful attachment styles predicted students' risky sexual behavior. The study found that preoccupied attachment style and secure attachment style had predictive effects on risky sexual behavior. Preoccupied attachment style was predictive of greater involvement in risky sexual behavior whereas secure attachment style was predictive of less risky sexual behavior. It was evident based on the findings that secure attachment style was protective against risky sexual behavior whereas preoccupied attachment style created vulnerability to risky sexual behavior. It was recommended that special attention should be paid to adolescents with insecure attachment styles in guidance and counseling programs aimed at discouraging adolescents' risky sexual behavior and parents/guardians should be encouraged to be more nurturing towards their children in order to encourage formation of secure attachment which was protective against risky sexual behavior.

Keywords: attachment styles, attachment avoidance, attachment anxiety, secure attachment, risky sexual behavior

Introduction

Globally, involvement in risky sexual behavior by adolescents (age 10 to 19) and youth (15 to 24 years) is a matter of public health concern (Bryan et al, 2012; Chan, 2021). Twenty three percent of the people living in sub-Saharan Africa are adolescents and their number is growing rapidly (Wado et al, 2020). Tulloch and Kaufman (2013) note that adolescents are attaining physical maturity at a younger age and marrying at an older age. As adolescents enter puberty, they start exploring intimate relationships and experimenting with sexual behavior (Tulloch & Kaufman, 2013). Early commencement of sexual activity, unprotected sex, sex in exchange for money or other benefits, sex with multiple partners or sex with older partners constitute risky sexual behavior (Eaton et al, 2003; Fetene & Mekonnen, 2018). According to Firomsa et al (2019) adolescents who involve themselves in such behavior increase their risk of getting HIV/AIDS or other sexually transmitted infections (STIs) in addition to unplanned pregnancies. Adolescents who become sexually active at an early age end up having significantly higher numbers of sexual partners in their lifetimes (Imaledo et al, 2013; Pettifor et al, 2009).

Researchers have found that the earlier an adolescent becomes sexually active, the less likely they are to engage in safe sex. For instance, Finer and Philbin (2013) examined the relationship between the age at which American adolescents became sexually active and contraceptive use. Their analysis revealed that girls who started having sex when they were 14 years or younger were less likely to have used any contraception at first sex and took longer to begin using contraception.

Involvement in risky sexual activity by young people is a problem the world over. In the United States for example, Grubb (2020) reports that in the period 2013 to 2017, infections with STIs increased by 31% with over half of the infected individuals being 15 to 24 years old. Globally, approximately 300,000 15-19-year-old adolescents get infected with HIV and two thirds of these adolescents live in sub-Saharan Africa (Idele et al, 2014). Moreover, according to the United Nations Population Fund (UNPFA, 2013) the Sub-Saharan region recorded the highest rate of teenage pregnancies globally between 1991 and 2010. In this region, individuals tend to become sexually active at an early age, typically before the age of 20 years (Marston et al, 2013). Premarital sex is common with many young people having unprotected sex with multiple partners or concurrent partners (Chapman et al, 2010; Fetene & Mekonnen, 2018; Maonga et al, 2018; Wamoyi et al, 2016).

Risky sexual behavior during adolescence is widespread in Kenya. Mbuthia et al (2019) carried out a survey of sexual behavior among university students based in the Coastal region. The 473 students had a mean age of 19.6 years. Although the students were relatively young, 59.4% of them had had sex at least once. Moreover, the survey found that 41.2% of the students who had had sex before had their first sexual intercourse when they were between 15 and 19 years old and 14% had their first sexual intercourse before they were 14 years old.

Beguy et al (2013) examined sexual behavior in young people (12 to 24 years) living in the slum areas of Nairobi County. The data came from the Transition to Adulthood project and was collected between the years 2007 and 2010. The data revealed that among adolescents who started having sexual intercourse before they were 15 years old, only 38.5% of boys and 34.2% of girls used condoms during their first sexual encounter. A study by Maina et al (2020) also focusing on adolescents living in slums in Nairobi County revealed that 13% of girls aged between 10 and 14 years had had sexual intercourse at least once. According to Beguy et al (2013) sexual activity by individuals who are not yet 15 years old can be considered as an early sexual debut and is among the risky sexual behaviors (Eaton et al, 2003; Fetene & Mekonnen, 2018). Wanjiku (2015) surveyed risky sexual behavior specifically in 16 to 19 year old students attending secondary schools in Nairobi County. Forty three percent of the students reported having had sexual intercourse in their lifetime and the mean age at which they had sex for the first time was 15 years. In addition, 55% of the students who reported having had sex before had partners significantly older than them and only 26% of the sexually active students used any form of contraception. A report by the United Nations Program on HIV/AIDS estimated that in the year 2018, 1.6 million Kenyans were living with HIV (UNAIDS, 2020). Of particular concern was that 51% of new HIV infections happened in young people or adolescents aged between 15 and 24 years and females had twice the risk of infection of males. The main mode of infection was unprotected sexual contact (Mbuthia et al, 2019).

Theoretical Framework

A child forms secure attachment with the caregiver if the caregiver responds promptly to the child's distress, is available, caring and attentive to the child's needs (Bowlby, 1969, 1973, 1982). Insecure attachment forms if the caregiver is unresponsive to the child's distress, unavailable and generally uncaring. According to Bowlby (1973), the ongoing interactions between the child and caregiver results in the formation of a mental model of the attachment

relationship. The mental model consists of a “self-image” which is how the child perceives himself or herself in relation to the caregiver and an “other-image” which is how the child perceives the caregiver’s attitude towards him or her (Kerns & Brumariu, 2014).

These mental models of attachment influence how children interact with their caregivers (Kerns & Brumariu, 2014). As children grow older, other people apart from the caregiver can become secondary attachment figures and meet some of their attachment needs (Dubois-comtois et al, 2013). During adolescence, attachment relationships can be formed with other members of the family, friends and romantic partners. Attachment relationships formed with secondary attachment figures resemble attachment relationships with caregivers (Hazan & Shaver, 1987). This is because the mental models of attachment formed earlier in childhood remain relatively stable over time and influence the relationships between adolescents and secondary attachment figures (Bartholomew & Horowitz, 1991).

Bartholomew and Horowitz (1991) described attachment styles according to these mental models of attachment relationships. Adolescents with secure attachment styles have positive self-image and consider themselves to be worthy of attention and care from attachment figures. They readily seek comfort from attachment figures whenever they feel distressed. They trust attachment figures to be present when they need emotional comfort. Individuals with insecure attachment styles relate with attachment figures differently depending on their mental image of themselves and of attachment figures.

Individuals with preoccupied attachment styles feel unlovable and unworthy of attachment figures’ attention and care. They derive validation and self-esteem through approval and acceptance by attachment figures (Chow et al, 2017). They have high levels of attachment anxiety and uncertainty about attachment figures’ availability and are preoccupied with fear of rejection or abandonment (Mikulincer & Shaver, 2012). They adopt a hyperactivating strategy in their relationships. For example, they may exaggerate their emotions to attract the attention of attachment figures.

Individuals with dismissing attachment styles have positive self-image and find validation from within themselves similar to individuals with secure attachment styles. However, they do not trust attachment figures as a result of unsatisfying relationships with caregivers. They adopt a deactivating strategy in the sense that they strive to be emotionally independent and not depend on attachment figures (Sheinbaum et al, 2015). They suppress their emotions when interacting with attachment figures. Individuals with dismissing attachment styles have high levels of attachment avoidance and do not feel motivated to form intimate relationships with attachment figures because they doubt attachment figures’ reliability or trustworthiness (Chow et al, 2017).

Individuals with fearful attachment styles long for attachment figures’ attention and acceptance as a source of self-validation. However, they distrust the attachment figures and expect that their bids for intimacy will be met with rejection or hostility (Erozkan, 2011). They have attachment anxiety as well as attachment avoidance (Mikulincer & Shaver, 2012) and while interacting with attachment figures, they are torn between wanting to be close to and avoiding rejection by the same attachment figures.

Attachment Styles and Risky Sexual Behavior

According to Shumaker et al (2009) each adolescent has a stable attachment style. Allen (2008) noted that by adolescence, an individual’s mental models of attachment relationships are so well established that an adolescent’s attachment style can be seen as a personality trait that influences how one regulates their emotions, how they interact with significant people in their lives and their thinking and behavior. The attachment theory therefore provides a framework through which risky sexual behavior in adolescents can be viewed. Part of adolescents’

attachment needs can be met within relationships with friends and members of the opposite sex (Dubois-comtois et al, 2013). Hazan and Shaver (1987) described romantic relationships as attachment relationships noting that attachment styles of partners are reminiscent of their attachment styles in infancy. In this context, adolescents' conduct in romantic relationships, including their sexual behavior, may be influenced by their attachment styles.

Researchers have found an association between attachment anxiety, which characterizes preoccupied attachment style, and risky sexual behavior. Paulk and Zayae (2013) investigated whether attachment styles predicted risky sexual behavior in American high school students. Two hundred and fifty eight students completed the Experiences in Close Relationships Questionnaire and a scale designed by the authors to measure risky sexual behavior. The study revealed that attachment anxiety predicted students' risky sexual behavior but attachment avoidance did not. The authors surmised that those students who had high attachment anxiety were unlikely to turn down their partners' overtures to engage in sexual activities, including sexual activities that were risky. This was because such students were afraid of upsetting their partners and losing the love and attention from their partners.

Potard et al (2017) carried out a study to determine whether sexual behavior in young French adolescents with mean age of 13.8 years was related to their attachment styles to their mothers and fathers. The study revealed that adolescents with ambivalent attachment (high attachment anxiety) were more likely to have had sex compared to those adolescents who were securely attached to their parents. At the same time, adolescents with avoidant attachment either abstained from sex or engaged in casual sex without emotional connection to their partners. According to the authors, adolescents with high attachment anxiety equated having sex with their opposite sex partners with commitment to their relationships. Moreover, sexual intercourse was a means of satisfying their craving for closeness and security that was not provided by caregivers. The authors also noted that adolescents with avoidant attachment preferred casual sex because they did not want to get emotionally close to one partner.

Saint-Eloi Cadely et al (2020) explored the relationship between insecure attachment and high school students' attitudes towards sex and relationships and a number of indicators of sexual risk behavior such as the age at which students had sex for the first time, whether they used condoms and the number of sex partners students had. The study showed that students with avoidant attachment started engaging in sexual activities at an earlier age, were less committed to sexual partners, engaged in sex with partners they did not take time to know well and had more sexual partners. Those students with avoidant attachment were however more likely to use condoms regularly. According to the authors, students with avoidant attachment had no interest in building long term or intimate relationships with their opposite sex partners but engaged in sex only to lose their virginity. They were careful to avoid pregnancies that might tie them to a partner.

Individuals with avoidant attachment may not participate in sexual activities with their partners as a means of achieving closeness and intimacy. Instead, they prefer casual sexual relationships and may have multiple sex partners (Kastbom, 2015). In some studies, adolescents with avoidant attachment abstained from sexual activity because they did not value close relationships that involved sexual intimacy. For instance, Lemelin et al (2014) examined predictors of risky sexual behavior in young adults and adolescents in Canada and found that adolescents with avoidant attachment started engaging in sexual behavior at a later age and the reason was they were less likely to be involved in serious romantic relationships that might avail opportunity for sexual activities.

Purpose of the Study

Secondary school students are at the adolescent stage of development characterized by rapid physical, cognitive and emotional development (Cueto & Leon, 2016). When adolescents enter puberty and mature sexually, they start exploring their sexuality and making decisions concerning their sexual behavior. The attachment theory proposes that one's attachment security may influence behavior and decision making in interpersonal relationships (Mikulincer & Shaver, 2012). Adolescents' attachment styles may influence their decisions regarding sexual behavior. Therefore, the goal of this study was to determine whether attachment styles predict secondary school students' involvement in risky sexual behavior.

Research Methodology

General Background

A correlational research design was used in this study. A correlational design was chosen because it enabled the authors use data collected from the same subjects at one point in time to find out relationships among several quantifiable variables and the degree of those relationships (Ary et al, 2014; Gays et al, 2012). The goal of this study was to find out whether there was a relationship between students' attachment styles and their involvement in risky sexual behavior. A correlational design was also suitable because no variables were controlled or manipulated in the study. The study was undertaken between May and June of 2021.

Participants

The study participants were 367 students from public secondary schools in three sub-counties of Nairobi County. Nine out of the 28 schools in the three sub-counties were chosen and 385 students were randomly selected from the nine schools and issued with the questionnaires. Three hundred and sixty seven properly filled questionnaires were returned hence the response rate was 95.3% which was more than adequate for the study according to recommendations by (Cooper & Schindler, 2003). The students' demographic characteristics are summarized in Table 1.

Table 1
Students' Demographic Characteristics

Demographic Characteristic	N	%	
Gender	Male	181	49.3
	Female	186	50.7
Age (years)	15	16	4.4
	16 to 17	176	47.9
	18 to 19	146	39.8
	20 and above	29	7.9
Type of School	Boys Boarding	38	10.4
	Girls Boarding	39	10.6
	Boys Day	89	24.3
	Girls Day	92	25.1
	Boys Co-educational	54	14.7
Girls Co-educational	55	14.9	

As presented in Table 1, 181 participants (49%) were male and 186 participants (50.7%) were female therefore male and female students were equally represented in the study. In regards to age, majority of respondents were in the 16 – 17 year age category (47.9%) or 18 – 19 year category (39.8%). The respondents in this study were representative of the adolescent age group which was the target of this study. Students were selected from all types of public secondary schools in Nairobi County.

Measures

Students' attachment styles were measured using the Attachment Styles Questionnaire (ASQ, Van Oudenhoven et al, 2003). This questionnaire contains 24 items that measure four dimensions of attachment: secure attachment (e.g. *I trust other people and I like it when other people can rely on me*), preoccupied attachment (e.g. *I often wonder whether people like me*), dismissing attachment (e.g., *It is important to me to be independent*) and fearful attachment (e.g., *I am afraid that I will be deceived when I get too close with others*). Students indicated how much they agreed with each item on a scale from 1 = *strongly disagree* to 5 = *strongly agree*. A factor analysis using the main components method and orthogonal rotation was done to verify the four factors in the ASQ (KMO = .784; Bartlett's test of sphericity $\chi^2_{d1276} = 5309.24$ p<.001) and four factors were obtained and together they explained 63.9% of the variance in attachment styles. The 24 items were retained. Reliability of the ASQ as ascertained with the following Cronbach's alpha coefficients: $\alpha = .74$ for secure attachment, $\alpha = .89$ for preoccupied attachment, $\alpha = .88$ for dismissing attachment and $\alpha = .87$ for fearful attachment.

A Risky Sexual Behavior Scale developed by the researchers was used to measure students' risky sexual behavior. It contained 11 items (e.g. *Have you ever had sex with a person you did not know very well?*). Students responded to these items on a scale from 1 = *Not at all* to 5 = *Six or more times*. A higher total score indicated more involvement in risky sexual behavior. The items in this scale were pilot tested on secondary school students and the authors were able to refine the items based on the outcome of the pilot testing. Chronbach's alpha reliability coefficient for the final version of the scale was .76.

Data Analysis

Multiple regression was used to test whether attachment styles predicted students' risky sexual behavior. Before the analysis, the data was examined to determine whether the assumptions necessary for regression analysis were met. Kurtosis and skewness coefficients presented in Table 2 were examined to ascertain that the data was normally distributed.

Table 2
Skewness and Kurtosis Values for Normal Distribution of Variables

Variables	Kurtosis	Skewness
Secure attachment	.425	-.566
Fearful attachment	-.650	-.410
Preoccupied attachment	-1.135	-.419
Dismissing attachment	-.581	-.478
Risky sexual behavior	.119	.871

As presented in Table 2, the coefficients for skewness and kurtosis generally ranged between -1 and +1 thus the data was considered to be normally distributed as recommended in

George and Mallery (2019). The exception was the kurtosis value for preoccupied attachment. However, George and Mallery note that good results in regression analysis can still be obtained if one of the predictor variables falls out of the recommended range of normality (p. 211).

The Variance Inflation Factor (VIF) was examined to determine whether there was multicollinearity among the predictor variables. The VIF values ranged between 1.003 and 1.265, all below 2.5 as recommended by Allison (2012). In addition, the tolerance values obtained were in the acceptable range (between .790 and .997) as recommended by George and Mallery (2019). It can be argued therefore that the assumptions of normality and non-collinearity were not violated in this study.

Ethical Considerations

The researchers adhered to the legal and ethical requirements to conduct research in Kenya. A research permit was given by the National Council for Science, Technology and Innovation (NACOSTI). After the permit was obtained, the County Director of Education for Nairobi County issued authorization to visit the schools to collect data. Participants were requested to voluntarily take part in the study.

Research Results

The results of the correlation analysis between risky sexual behavior and students' attachment styles are presented in Table 3.

Table 3
Correlations between Students' Risky Sexual Behavior and Attachment Styles

	Risky Sexual Behavior	
	<i>r</i>	
Secure attachment		-.192**
	<i>p</i>	<.001
	<i>N</i>	367
Preoccupied attachment	<i>r</i>	.194**
	<i>p</i>	<.001
	<i>N</i>	367
Dismissing attachment	<i>r</i>	.145*
	<i>p</i>	.004
	<i>N</i>	367
Fearful attachment	<i>r</i>	.023
	<i>p</i>	.339
	<i>N</i>	367

Note: * $p < .01$ ** $p < .001$

The bivariate correlations shown in Table 3 indicate that risky sexual behavior was negatively correlated with secure attachment style ($p < .001$). Risky sexual behavior was positively correlated with preoccupied attachment style ($p < .001$) and dismissing attachment style ($p < .004$). The correlation between risky sexual behavior and fearful attachment was not significant ($p = .339$). The results of the correlation analysis show there were relationships between risky sexual behavior and the attachment styles except fearful attachment style. The results of the regression analysis conducted to find out whether the four attachment styles significantly predicted students' risky sexual behavior are shown in Table 4.

Table 4
Regression Analysis Results for Attachment Styles as Predictors of Risky Sexual Behavior

Variable	B	S.E	β	t	p
(Constant)	21.186	2.255		9.396	<.001
Secure Attachment	-.247	.071	-.182	-3.480	.001
Preoccupied Attachment	.168	.056	.176	3.000	.003
Dismissing Attachment	.128	.080	.094	1.603	.110
Fearful Attachment	-.101	.077	-.076	-1.318	.188

$R = .285$ $R^2 = .081$ $F = 7.427$ $p < .001$

The regression analysis given in Table 4 shows that the four attachment styles significantly predicted students' risky sexual behavior ($F = 7.427, p < .001$) and together they explained 8.1% of the variance in the scores of risky sexual behavior. The standardized regression coefficients show the contribution of each attachment style in predicting risky sexual behavior. Secure attachment style ($\beta = -.182, p = .001$) and preoccupied attachment style ($\beta = .176, p < .003$) significantly predicted risky sexual behavior whereas dismissing attachment style ($\beta = .094, p < .110$) and fearful attachment style ($\beta = -.076, p = .118$) did not. The results of the regression analysis show that the more secure a student's attachment style was, the lower their propensity for risky sexual behavior was. However, the more preoccupied their attachment style was, the greater their propensity for risky sexual behavior.

Discussion

The findings in this study revealed a significant association between risky sexual behavior and attachment styles in secondary school students. Regression analysis revealed that the more secure a student's attachment style was, the lower the likelihood that they were engaging in risky sexual behavior. This finding is consistent with findings reported in earlier studies where individuals with secure attachment styles were less likely to engage in risky sexual behavior. Earlier studies by Potard et al (2017) and Matson et al (2014) found that adolescents with secure attachment styles engaged in risky sexual behavior at lower rates compared to their counterparts with insecure attachment styles.

Adolescents with secure attachment styles may be less vulnerable to engaging in sexual behaviors that are risky because they have positive self-image and find validation from within themselves. Their self-worth does not depend on acceptance or approval by other people. At the same time, they are not concerned with rejection or abandonment by their romantic partners because they have low level of attachment anxiety (Mikulincer & Shaver, 2012). As a result of this disposition, students with secure attachment styles were less inclined to accept their partners demands to engage in risky sexual activities to gain their partners' approval or to hold on to relationships (Olmstead, 2020).

Significant correlations were found between risky sexual behavior and attachment anxiety and also between risky sexual behavior and attachment avoidance. The implication of that finding was that risky sexual behavior was associated with both dimensions of insecure attachment to some extent. When the regression analysis was carried out, the resulting model showed that attachment anxiety was a significant predictor of risky sexual behavior but attachment avoidance was not. The findings therefore confirmed the association between attachment anxiety and risky sexual behavior reported in previous studies. For instance, Paulk

and Zayac (2013) reported that attachment anxiety predicted risky sexual behavior in American high school students whereas the study by Potard et al (2017) revealed that adolescents with high levels of attachment anxiety started engaging in sexual activities at a younger age.

Individuals with preoccupied attachment styles tend to feel that they do not deserve attachment figures' love and attention and are sensitive to any hint of rejection (Mikulincer & Shaver, 2012). When they are in romantic relationships, they readily concede to their partners' sexual demands to demonstrate their love and to avoid rejection by their partners even if the sexual activities they are asked to participate in are risky (Olmstead, 2020). Their fear of rejection and desire to please their partner drives them to engage in sexual activities despite the risks involved. According to Cook et al (2016), students with preoccupied attachment styles start engaging in sexual activities, including those that are risky, when they are still young because sexual relationships get them desperately needed attention and may satisfy some of their unfulfilled attachment needs. Adolescents with preoccupied attachment styles seek the emotional security they did not receive from caregivers in sexual relationships (Tracy et al, 2003). They readily engage in sexual activities with romantic partners in order to feel secure and avoid loneliness. In their perspective, the more the sexual intimacy in their relationships, the better the quality of the relationship (Tracy et al, 2003). Moreover, adolescents with preoccupied attachment styles need acceptance and approval of others to validate their self-worth. Therefore they may interpret romantic partners' sexual interest in them as affirmation of their value and agree to take part in sexual activities including those are risky (Antonacci, 2014). Adolescents with preoccupied attachment styles are eager to get others to like them therefore they are likely to take part in risky sexual activities to please others and earn their liking (Paulk & Zayac, 2013).

Dismissing attachment style did not significantly predict students' risky sexual behavior in the regression analysis although attachment avoidance was significantly correlated with risky sexual behavior. This finding can be interpreted to mean that attachment avoidance was associated with risky sexual behavior albeit to a smaller extent than attachment anxiety. Individuals with avoidant attachment styles have a self-image that is positive but do not trust attachment figures and prefer to be emotionally independent (Mikulincer & Shaver, 2012). They do not depend on other peoples' approval or acceptance for self-validation unlike individuals with preoccupied attachment styles. As a result, they are unlikely to agree to sexual activity for the sake of pleasing their partners.

According to Jones and Furman (2010), adolescents with high attachment avoidance may abstain from sexual relationships because they are uncomfortable with intimate relationships and prefer to remain emotionally independent. According to Mikulincer and Shaver (2007) individuals with avoidant attachment may not form close relationships because they do not trust other people and fear disappointment in close relationships. Since they have fewer close relationships, they have fewer opportunities to engage in sexual behavior. It is possible that the weaker association between dismissing attachment style and risky sexual behavior was because students with high attachment avoidance were taking part in less sexual behavior generally.

Research on attachment security and sexual behavior suggests that adolescents with dismissing attachment styles and those with preoccupied attachment styles are motivated to engage in sexual behavior for different reasons and this might explain why attachment anxiety was a better predictor of risky sexual behavior in this study. Whereas students with preoccupied attachment styles may engage in sexual activities for the reasons mentioned earlier, students with dismissing attachment styles might have sex for specific reasons such as to lose their virginity and fit in with their peers who have already lost their virginity (Saint-Eloi Cadely et al, 2020) but with no intention of forming close relationships with the people they have sex with. According to Thibodeau et al (2017) adolescents with avoidant attachment have little desire for emotional intimacy or commitment to a partner so they prefer to have sexual relationships

with strangers with whom they have no plan for long term relationships. Adolescents with preoccupied attachment styles are less prone to casual sex because they have a stronger desire for love, acceptance and security that is found in a committed relationship and view sex as a means of strengthening such a relationship.

Individuals with fearful attachment styles score highly on both dimensions of attachment anxiety and attachment avoidance (Mikulincer & Shaver, 2012). Students with this attachment style were expected to be more prone to risky sexual behavior compared to students with secure attachment styles (Paulk & Zayac, 2013). However, this study found no significant association between risky sexual behavior and fearful attachment style. This finding contradicted the finding reported by Dumas-Koylass (2013) in which fearful and dismissing attachment styles predicted risky and impulsive sexual behavior in 18 to 19 year old respondents. The finding in that study should be compared with this study cautiously because of the age difference of the respondents. In a study looking at the links between sexual behavior and attachment styles in homeless youth, Kidd and Shahar (2008) found that individuals with fearful attachment styles were more likely to exchange sex for money, a behavior that is deemed to be harmful to them.

People who have fearful attachment styles have a negative self-image similar to individuals with preoccupied attachment styles and crave for the love and attention of attachment figures. However, they distrust attachment figures and are torn between seeking the attention of attachment figures and avoiding closeness with attachment figures out of fear of rejection (Erozkan, 2011). Students with this attachment style may not have stable relationships with members of the opposite sex that might provide a context for sexual relationships because of this conflict. It is possible, as Cooper et al (2006, cited in Gause, 2017) suggest, that attachment avoidance acts as a buffer against risky sexual behavior because individuals with fearful attachment avoid close relationships that might involve sexual intimacy. This might explain the absence of any association between fearful attachment and risky sexual behavior in this study.

Conclusions and Recommendations

This study has shown that attachment styles, which are based on mental models of attachment relationships, influence secondary school students' sexual behavior. The attachment theory predicts that individuals' perceptions of themselves and how they perceive significant others, based on their mental models of attachment relationships, influences their behavior in interpersonal relationships. The findings of this study support the attachment theory in this regard.

Most of the research on attachment has focused on children or adults and comparably few researchers have examined how attachment influences adolescent adjustment in various domains. The findings of this study demonstrate that attachment security is important in adolescence and that the attachment theory is a valuable paradigm through which adolescents' behavior can be understood. The findings also reinforced the cross cultural applicability of the attachment theory. This is important since most of the research on attachment in adolescents has been done in Western countries. Few studies have explored attachment in relation to adolescent populations in Kenya. This was the first study to the authors' knowledge that examined whether attachment styles influence adolescents' risky sexual behavior in Kenya.

The findings of this study are relevant to school guidance and counseling practice. Based on the findings, it is recommended that school counselors pay more attention to students with insecure attachment styles since they are the ones with greater propensity to engage in risky sexual behaviors. It is also recommended that parents and guardians be educated on the importance of secure attachment so that they can adopt parenting that enhances secure attachment in their children.

Declaration of Interest

Authors declare no competing interest.

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