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Was Bob Seger Right? Relation Between Boredom in Leisure and [Risky] Sex

JACQUELINE A. MILLER,

The Prevention Research Center Department of Human Development and Family Studies The Pennsylvania State University University Park, PA, USA

LINDA L. CALDWELL,

Department of Recreation, Park, and Tourism Management The Pennsylvania State University University Park, PA, USA

ELIZABETH H. WEYBRIGHT,

Department of Recreation, Park, and Tourism Studies Indiana University Bloomington, IN, USA

EDWARD A. SMITH,

The Prevention Research Center Department of Human Development and Family Studies The Pennsylvania State University University Park, PA, USA

TANIA VERGNANI, and

HIV/AIDS Programme University of the Western Cape Cape Town, South Africa

LISA WEGNER

Department of Occupational Therapy University of the Western Cape Cape Town, South Africa

Abstract

This article examines the association between boredom in leisure and risky sexual behaviors among South African youth ($N = 1695$) using longitudinal data. We hypothesized that youth who were higher on boredom in leisure at the end of ninth grade would be more likely to report engaging in risky sexual behaviors at the beginning of tenth grade. Chi-square results indicate youth, especially male youth who experience high levels of leisure boredom in ninth grade, are more likely to engage in risky sexual behaviors in tenth grade. These findings have implications for prevention programs that aim to delay sexual initiation, reduce sexual risk behaviors, and decrease the transmission of HIV and AIDS. The findings support the need for additional research on how the reduction of leisure boredom may be a potential target for reducing sexual risk among youth.

Keywords

adolescents; boredom; leisure; sexual risk

Introduction

“Workin’ on our night moves in the summertime We were just young and restless and bored . . . I used her she used me . . . ” (Bob Seger, *Night Moves*, 1976) In the song *Night Moves*, Bob Seger sings that the sexual activities in the back seat of his Chevy were perhaps due to being “young and restless and bored.” Qualitative research reinforces this pop culture reference (Adimora et al., 2001; Patrick, Maggs, & Abar, 2007; Wegner, 2011). From a risk and prevention perspective, boredom in leisure time is a concern since research suggests that boredom is related to adolescent problem behavior. Although there are clearly many other factors that contribute to engaging in problem behaviors, it is fairly well documented that boredom and boredom in leisure are associated with other problem behaviors such as substance abuse and vandalism among youth (Caldwell & Darling, 1999; Caldwell, Smith, & Weissinger, 1992; Csikszentmihalyi & Larson, 1984; Shaw, Caldwell, & Kleiber, 1996; The National Center of Addiction and Substance Abuse, 2003). Quantitative research on the relationship between boredom in leisure and sexual risk, however, is limited.

Understanding the phenomenon of boredom in leisure is linked with several factors. First, about 40% of youth’s time is generally free time (Caldwell et al., 1992), and other research has projected that about 10% of youth consider their leisure time as generally boring (Haller, Hadler, & Kaup, 2012). From a developmental perspective, as youth become more autonomous and responsible for managing their out-of-school time, they need to develop leisure skills that will enable them to use this time wisely and in healthy ways.

Developing these skills, however, is often complicated by lack of recreation resources, which is a common situation in economically challenged and/or rural areas. Research also provides evidence that greater intrinsic motivation and stronger, more enduring interests and passions, among youth are associated with better health and developmental outcomes (Ryan & Deci, 2000; Sharp, Caldwell, Graham, & Ridenour, 2006).

Although research on boredom and sexual risk is limited, particularly among youth, some research on this topic has been conducted on rural North American youth. This indicates that a lack of recreational resources and boredom may contribute to risky sexual behavior (Adimora et al., 2001; Kelly & Parker, 2000; Milhausen et al., 2003). Furthermore, other research has found that youth who spend more time in extracurricular activities engage in less sexual activity, whereas youth who spend more time relaxing alone or in unstructured time with peers are more sexually active (Barnes, Hoffman, Welte, Farrell, & Dintcheff, 2006; Kaufman, Clark, Manzini, & May, 2002).

In this paper, we explore the link between boredom in leisure and sexual risk among an understudied and very high risk sample for sexual risk – South African high school students. Specifically, we use longitudinal data to examine the association of levels of boredom in leisure time with sexual risk among a sample of South African high school youth across two waves of data.

Sexual Risk Behavior Among South African Youth

Understanding influences on sexual risk behavior is of particular concern among South African youth given the dramatic increase in the prevalence of HIV and AIDS during late adolescence; especially when most new infections are acquired through sexual intercourse (Pettifor et al., 2005). In 2008, 2.5% of males and 6.7% of females, aged 15 to 19 years old in South Africa, were infected with HIV. Among South Africans, HIV prevalence peaks in the late twenties and early thirties with 32.7% of females age 25–29 infected and 25.9% of males age 30–34 infected (Shisana et al., 2009). Although the vast majority of South African youth ages 15–24 report exposure to HIV and AIDS prevention media (90.2%), accurate knowledge of behaviors that can reduce risk of HIV transmission has declined among youth in recent years (from 66.4% in 2005 to 42.1% in 2008; Shisana et al.).

Peer pressure and perceptions of normative behavior can be a powerful influence on sexuality, contributing to sexual risk taking among youth. Social norms in South Africa encourage boys to prove their masculinity through sexual behavior (Petersen, Bhana, & McKay, 2005; Selikow, Ahmed, Flisher, Mathews, & Mukoma, 2009). Boys who abstain from sex, have few sexual partners, or use a condom may experience peer ridicule and rejection. Although sexual behavior can also be a symbol of status for girls (Selikow et al.; Wood, Maforah, & Jewkes, 1998), they are often discouraged from expressing a desire for sex. Rather, girls are expected to be passive in their sexual relationships and please their partners (Wood, Lambert, & Jewkes, 2007), which likely prevents them from negotiating safe sex practices. Expectations that girls do not discuss sex and boys should already be knowledgeable about sex, further hinders youths' development of skills to communicate and negotiate safe sex, resulting in both male and female South African youth reporting difficulty in negotiating safe sex (Buthelezi et al., 2007).

Sexual Risk and Environmental Context

Youth's sexual risk behavior is also influenced by the environment in which they live (Eaton, Flisher, & Aarø, 2003; Rogan et al., 2010). In a study of youth in KwaZulu-Natal, South Africa, characteristics of youths' communities (e.g., proportion of people working, average weekly wages of members of the community, proportion of members enrolled in school, average level of school achieved in the community, and availability of organized activities) were related to odds of sexual intercourse during the past year and condom use at last sex (Kaufman et al., 2002). After controlling for individual and family characteristics, girls living in a community with higher aggregate levels of education, a larger proportion of youth participating in community sports, and where youth earned more money from work were less likely to report having had sex during the past year. The same community characteristics were positively related to condom use at last sex, but not sexual activity, among boys. Greater employment and earnings among youth at the community level were also related to increased odds of condom use at last sex for girls. Although the cross-sectional nature of this study prevents any causal inferences, it highlights the potential importance of community characteristics, opportunities, and resources for youth's sexual health.

Formal recreational resources may allow youth the opportunity for positive development and growth in a supervised atmosphere. Youth in communities that lack such resources are more likely to spend time “hanging out” with friends—a context that increases risk for risky behaviors (Barnes et al., 2006; Kaufman et al., 2002; Wegner, 2011). Although many factors influence youth’s decisions to have sex (e.g., peer pressure, gender norms, desire), Milhausen and colleagues (2003) suggest that a lack of structural recreational resources in rural areas may explain their findings of earlier sexual initiation and increased risky sexual behaviors among North American youth in rural areas compared to non-rural youth. Similarly, the authors of a qualitative study in South Africa suggested that sexual activity may serve as a distraction for youth in communities that lack alternative recreational opportunities (Kelly & Parker, 2000). Even in urban areas, leisure opportunities are lacking for many South African youth, which may lead to many youth experiencing boredom. Although researchers have suggested that boredom may contribute to risky sexual activity, further research is needed to confirm this relationship.

Boredom in Leisure in South Africa

South African youth have relatively high numbers of unoccupied hours in their daily lives (Kingdon & Knight, 2004) and experience a high degree of boredom in leisure time, especially black and coloured (i.e., mixed race) youth (Wegner, Flisher, Muller, & Lombard, 2006). For example, Møller (1991) found that one-third of the black youth participating in a South African nationwide survey reported that they felt excessively bored and restless. Although this survey was conducted during the Apartheid regime, the economic disparity vestiges of that regime are still in force at the present.

The Leisure Activity, Experience, and Context (LACE; Caldwell, 2011) model suggests that in order to understand leisure, it is important to consider the activity itself, the individual’s affective experience, and the context in which the activity occurs. Although sparse, research on South African youth’s leisure time can be viewed in terms of the LACE model. Reflecting on her findings, Møller (1991) was not surprised that black youth reported excessive boredom compared to white and colored youth because these youth, many of whom were unemployed, apparently engaged in socially deviant activities due to lack of opportunity for meaningful activities.

Similarly, in a photo elicitation study focusing on leisure activity, context, and experience, Wegner (2011) found that youth spent large periods of time hanging out on street corners or in backyards due to the lack of leisure opportunities. Although this diversion allowed youth to socialize, the pursuit inevitably led to boredom. These youth perceived boredom to be part of life, although it was “dangerous” because it often led to risky behavior. Her findings clearly illustrated the ways leisure time activities were restricted due to two main contextual elements: (1) lack of opportunity and, (2) if resources did exist, they were unappealing, unsafe, inaccessible, or too expensive.

Wegner (2011) described the context of her study, which was conducted in the same community as the current study. She observed:

There were many parks and open fields that were surrounded by houses, flats and busy roads. These parks were not very appealing places as the equipment was either broken or stolen. There were numerous derelict buildings and deserted houses in the area that had been vandalized or burnt out, with broken walls and covered in graffiti. Although the participants perceived parks to be places for younger children to play in, and derelict houses as places frequented by sexual assailants and where gangs consumed drugs and alcohol, the participants spent a lot of their free time in these places for want of better places to go. (p. 20)

One of the 15-year-old male participants said, “The kids use these places to smoke dagga (cannabis). And sometimes even, they rape girls here” (Wegner, 2008, p. 124). Wegner summed up the situation by stating, “so there is no entry into leisure resources and activities, and no exit from the context in which they find themselves” (p. 126).

Current Study

Despite the clear association of boredom with other risk behaviors, we are not aware of any quantitative research that has examined the role of boredom in leisure on youth sexual risk. This paper reports on longitudinal data from high school youth, who live in the same peri-urban area around Cape Town, South Africa, described in Wegner’s study. Because most youth experience some form of boredom now and then, from a risk and prevention perspective we were most interested in those youth who experienced high boredom in leisure. We hypothesized that youth who experienced high levels of boredom in leisure in grade 9 would be more likely to be nonvirgins and report sexually aggressive intentions at the beginning of grade 10.

Furthermore, although studies of sexual behavior often focus solely on whether or not an individual has ever had sex, the risk associated with sexual behavior can vary substantially depending on the characteristics of the sexual encounter and whether or not a condom was used. Therefore, this study aims to further explore the association between high levels of boredom and specific risky sexual behaviors among the subgroup of youth who are sexually active. We hypothesize that, among those who are sexually active, youth who experienced high levels of boredom in grade 9 will also be more likely to engage in future risky sexual behaviors. Because there are differences in normative sexual behaviors for male and female youth, analyses were conducted both for the full sample and separately by gender.

Methods

Participants

Participants consisted of youth from Mitchell’s Plain, a low-income township approximately 15 miles outside of Cape Town, South Africa. Although the official segregation of Apartheid ended nearly two decades ago, Mitchell’s Plain remains homogeneous and is a community of people who primarily identify as having mixed ancestry (“colored”). Youth participated in an evaluation of HealthWise South Africa, a school-based life and leisure skills curriculum intervention addressing youth health risk behavior (see Caldwell et al., 2004). Of the 25 local high schools, six were excluded due to implementation concerns, four

were randomly assigned to receive the HealthWise curriculum, and five schools were chosen as matched no-treatment control schools. All participating high schools included youth from grades 8 through 12, as is typical of South African high schools. Youth were followed longitudinally in three cohorts starting in eighth grade between 2004 and 2008, and data were collected on bi-annual measurement occasions in conjunction with school semesters and continued for eight, six, or five waves (Cohort 1, 2, and 3, respectively). For this study, analyses included only control group participants from all cohorts ($n = 3581$) but were limited to youth who remained in the sample at Waves 4 and 5 (grades 9 and 10, respectively).

Youth who had responses for the boredom in leisure scale at Wave 4 and the “ever had sex” item at Wave 5 were included in the present study, producing a total sample of 1,695 youth. Descriptive statistics for the final sample can be found in Table 1. Just over half of the sample was female (56.1%) and youth were 15.0 ($SD = 1.4$) years old on average at Wave 4, with 96.8% of youth between the ages of 14 and 16. Most youth identified as Colored (94.1%), and nearly two-thirds were Christian. There were no significant differences between Catholic/Christian and Islamic youth in levels of boredom nor sexual activity.¹

Procedures

The study was approved by the Institutional Review Boards at affiliated universities and used passive parental consent and active youth assent procedures. Survey administration was conducted through the use of personal digital assistants (PDAs) at the beginning and end of each grade during school hours for approximately 30 minutes. Research staff was available at each survey administration to answer questions or assist with difficulties. The survey was administered in the youth’s home language (English or Afrikaans).

Measures

Boredom in leisure—Boredom in leisure was measured with three items from the *Boredom* subscale of the Leisure Experience Battery for Adolescents (Caldwell et al., 1992). The Battery and subscales has demonstrated reliability and validity with adolescents (Caldwell et al.) and young adults (Barnett, 2005) in North America. Cronbach’s alpha was used to assess the reliability of the adapted subscale in the current study and supports the reliability of the scale with the current sample ($\alpha = 0.73$). This adapted scale was computed using the mean of responses at Wave 4 for the following three items: “For me, free time just drags on and on”; “Free time is boring”; and “I usually don’t like what I’m doing in my free time but I don’t know what else to do.” All responses were scored with a 5-point Likert scale ranging from 0 (*strongly disagree*) to 4 (*strongly agree*). Responses were then grouped to better classify individuals experiencing low, neutral, and high boredom where low boredom individuals scored less than or equal to one on the boredom scale, neutral boredom individuals scored between one and three, and high boredom individuals scored greater than or equal to three.

¹Analysis of variance was used to test for differences between Catholic/Christian youth and Islamic youth in levels of boredom, and all sexual behaviors reported on in this paper among all youth, male youth only, and female youth only. All results were nonsignificant.

Sexual behaviors—All sexual behaviors were measured at all waves. In this study we focus on Wave 5 sexual behaviors. Youths' *virginity status* was determined by a single item that indicated if the youth had ever had vaginal intercourse. Two items were combined to create a dichotomous measure of *sexually aggressive intentions*. First youth were asked if they would keep trying to have sex when their partner said "no." Youth who responded that they would keep trying were also asked when they would stop trying. Youth who indicated that they "would not stop trying to have sex" were considered to have sexually aggressive intentions.

Additional questions about sexual behavior were asked only of youth who reported that they were nonvirgins. *Relationship to partner* was measured with a single item describing youths' last sexual partner. Sexual encounters were considered to be more risky if youth indicated that sex was with someone they had "just met that day" rather than someone whom they had "known for a while" or was "serious[ly] dating." Youth were also asked about the circumstances of their last sexual encounter including whether or not they had used a condom; drank alcohol; smoked cannabis; were forced to have sex, and if they had sex for money, drinks or food (*transactional sex*). All items were dichotomous with response options of *yes* or *no*.

Lastly, youth were asked how often they use a condom when they have sex, with five possible responses ranging from *all of the time* to *never*. Because consistent condom usage is important for reducing the risk of HIV infection, a dichotomous item was created for whether or not the learner used a condom all of the time (*always use condom*).

Analytic Plan

Chi-square analyses were performed to test for differences in the proportion of high boredom in leisure youth and low/neutral boredom youth (as reported in the ninth grade) who reported sexual behavior six months later. Due to the lack of sexual activity at earlier waves, analyses utilized sexual behaviors reported in Wave 5 (beginning of tenth grade) for all three cohorts (see Table 1 for descriptive statistics). This allowed for the largest possible sample at a point in time when youth were older and thus more likely to engage in sexual activity. Boredom measures were taken from Wave 4 (end of 9th grade) data in order to capture the most proximal influence on sexual behaviors, while ensuring that the measure of boredom precedes the measure of sexual behavior.

Chi-square analyses provide a clear and concise method for understanding dichotomous data. Although more complex methodological approaches could be used to analyze the current data while incorporating additional variables, the use of simpler methods are preferred when they can adequately address the research questions (Wilkinson & Task Force on Statistical Inference, 1999). The homogeneous sample used in the current study inherently controls for potential demographic confounders, including grade level, race, and socioeconomic status. Thus, this sample provides an opportunity to test the basic theoretical relationship between boredom and sexual risk. This parsimonious approach is important for developing a foundation for future research given the current paucity of research on this topic.

Results

Boredom in Leisure and Virginitly Status

Nearly 1 out of 10 youth (9.9%) reported high levels of boredom in leisure at the end of ninth grade (Wave 4), with no difference between the proportion of male and female youth reporting high boredom. At the beginning of tenth grade, 20% of youth were nonvirgins. Male youth were significantly more likely to be nonvirgins (28.5%) than female youth (12.5%), $\chi^2(1695) = 67.4, p < .0001$.

Chi-square analyses tested for differences in the proportion of youth engaging in sexual behavior based on their level of boredom in leisure (high vs. low/neutral, see Table 2). For youth who are high on boredom, 38.1% were nonvirgins compared with 17.5% of youth who report low/neutral boredom ($\chi^2(1695) = 40.91, p < .0001$). The same pattern was observed for both male and female youth. Compared to male youth who were low or neutral on boredom in leisure, those who reported high boredom in grade 9 were more than twice as likely to report being a nonvirgin as they entered the tenth grade (57.1% v 25.2%; $\chi^2(745) = 34.7, p < .0001$). The majority of females reported that they were virgins (87.5%).

Females in the high boredom group in ninth grade were nearly twice as likely to be a nonvirgin in tenth grade (22.0% vs. 11.5%) compared with those who were not bored in ninth grade ($\chi^2(950) = 8.21, p = .004$).

Youth high in boredom in grade 9 were also more likely to report sexually aggressive intentions (6.6% vs. 2.7%; $\chi^2(1617) = 6.93, p = .009$) as they began tenth grade. However, this trend was mainly driven by male youth; females rarely reported sexually aggressive intentions (1.0%), regardless of their boredom group. Among males, however, a greater proportion of males who experienced boredom in leisure in grade 9 reported sexually aggressive intentions in the tenth grade compared to other male youth (14.1% v. 5.0%; $\chi^2(686) = 8.71, p = .003$).

Boredom in Leisure and Sexual Risk Behaviors Among Nonvirgins

Given the association between high levels of boredom in leisure and virginitly status, additional analyses were conducted to explore the association of boredom and specific characteristics of the participants last sexual encounter that may increase the risks associated with sexual behaviors, such as the use of alcohol or drugs, lack of condom use, or being forced to have sex. Because social norms differ for male and female youth, particularly in the context of sexual behavior, analyses were conducted for both male and female youth separately. Results of analyses for all nonvirgin youth (male and female combined) can be found in Table 2.

Nonvirgin Male Youth

At the beginning of tenth grade, nearly two-thirds of nonvirgin males reported risky sexual behavior at their last sexual encounter (analyses not shown). Nonetheless, males high on boredom in grade 9 were more likely to engage in certain risky sexual behaviors in grade 10 compared with sexually active males who were low on boredom in grade 9. Chi-square tests

revealed that males in the high boredom group in grade 9 were significantly more likely to report recent risky sexual behavior at grade 10, including using alcohol at last sex (54.6% vs. 32.1%; $\chi^2(212) = 7.52, p = .006$), and that they were forced to engage in sex (27.3% vs. 14.3%; $\chi^2(212) = 4.17, p = .041$). The use of cannabis at last sex did not differ across groups; a quarter of males reported cannabis use at last sex.

Males high on boredom in grade 9 were also less likely to report always using a condom at the start of grade 10 (31.8% vs. 52.4%; $\chi^2(212) = 5.91, p .015$). Most males reported that their last sexual partner was someone whom they knew for a while or were dating seriously and that they used a condom at last sex (71.7%), though this did not differ across grade 9 levels of boredom. Lastly, 12.7% of male youth reported engaging in transactional sex in grade 10; χ^2 tests suggest that boredom in grade 9 was marginally associated with a greater likelihood of engaging in transactional sex ($p = 0.084$).

Nonvirgin Female Youth

Chi-square tests were used to compare high and low leisure boredom groups of females in grade 9 on engagement in sexual risk behavior approximately six months later as they entered grade 10 (Table 2). Although most female youth had never engaged in sex (87.5%), the direction of the boredom effect on sexual risk was mixed among females who had ever had sex in the tenth grade. Nonvirgin females high in boredom in grade 9 were significantly more likely to report at the beginning of grade 10 grade that their most recent sexual encounter was with a partner whom they just met (20.0% vs. 4.1%; $\chi^2(118) 6.66, p = .010$). Unexpectedly, 17.4% of females in tenth grade who were low/neutral on boredom in ninth grade reported using cannabis at last sex compared with none of the high boredom group ($\chi^2(118) = 4.05, p = .044$). Females who experienced high boredom in ninth grade did not differ on other variables of sexual risk in tenth grade compared with other sexually active females.

Discussion

We aimed to investigate the longitudinal relationship between risky sexual behavior and high levels of boredom in leisure; however it is important to note that youth who were experiencing high boredom represent only 10% of the overall sample. The current study supports a longitudinal association between experiences of high levels of boredom in leisure during the ninth grade with nonvirgin status and engaging in numerous high risk sexual behaviors six months later as youth begin the tenth grade.

Boredom in leisure is of particular concern to the sample in our study due to the relative lack of leisure and recreational activities available to the youth where they live. Boredom in leisure can be facilitated by a number of conditions, such as understimulation, social control, or forced effort (Caldwell, Darling, Payne, & Dowdy, 1999). Although we do not know what caused the boredom in leisure in this sample, or whether there was a single cause or multiple causes, based on the work of Wegner (2011) we might hypothesize that boredom in leisure may have been associated with understimulation. Thus, one possible explanation for our findings is that understimulated, bored youth, lacking widely available recreational alternatives, may have been motivated to overcome feelings of boredom by engaging in sex for fun and excitement, obtain peer approval, or to cope with negative emotions, three

motives previously identified as reasons for sexual activity among young adults (Cooper, Shapiro, & Powers, 1998), and may be more likely among those who are unable to self-regulate their experiences of boredom. Although there is little research in this area, one study does suggest that adolescent risky behavior is more likely to be associated with reward seeking than impulse control (Galvan, Hare, Voss, Glover, & Casey, 2007). It is also possible that although youth in this study understood the risks associated with engaging in sexual activity, their need for reward-seeking and escaping understimulation outweighed their ability to self-regulate; this is only conjecture at this point and in need of empirical validation.

Although our findings support an association between high levels of boredom in leisure and sexual behavior, the majority of youth are neither extremely bored nor sexually active. Nonetheless, our findings suggest that, for the subset of youth who experience extreme boredom in leisure, there may be some validity in reports from qualitative research that sexual activity serves as a leisure activity for some South African youth when there are few recreational activities and nothing else to do (Kelly & Parker, 2000; Patrick et al., 2007; Wegner, 2011). On average, youth in this sample were between the ages of 14 and 16, thus involvement in any sexual activity remains risky as youth who engage in sex at an early age are at an increased risk for HIV and AIDS because they are less likely to use safe sex practices (Reddy et al., 2010; Taylor et al., 2007; Zuma, Mzolo, & Makonko, 2011), are more likely to experience sexual coercion (Maharaj & Munthre, 2007), have more lifetime sexual partners (Cooper et al., 2007), and are exposed to risk through sex for a longer period of time. South African boys are considerably more likely to initiate sex at an early age, with 21.2% of boys initiating sex before the age of 14 (compared to 4.3% of girls; Reddy et al., 2010). Therefore the current study's attention to both male and female youth provides important insight into early sexual behavior among South African youth.

Differences in age-graded normative behavior for male and female youth may contribute to the differences in risky sexual behaviors that were predicted by boredom for male and female youth in the current study. The majority of female youth in the current sample have never engaged in sexual intercourse, thus initiating sex represents considerable risk. In contrast, male youth are more likely to be nonvirgins compared with female youth; thus, in addition to the association with virginity status, levels of boredom in the ninth grade also differentiate engagement in more risky sexual behaviors in tenth grade. When looking at the impact of leisure boredom on school dropout, Wegner and colleagues found that leisure boredom was a significant predictor of dropout in youth 14 years and older but not so in younger youth who are already at lower risk of dropout due to their age (Wegner, Flisher, Chikobvu, Lombard, & King, 2008). It may be that boredom is most influential in risk behavior that is within the scope of behavior for youth of a particular age and gender. Thus, it may be that age-graded and gender norms shape the influence of boredom on risky behavior relative to one's peers.

Despite experiencing similar levels of boredom in leisure as male youth, female youth may have fewer opportunities to engage in risky behavior if they experience more parental monitoring and control. South African youth report that parents are more likely to monitor the whereabouts and behavior of daughters compared to sons (Petersen et al., 2005).

Similarly, female youth are subjected to more rules than male youth by both their mothers and fathers (Brook, Morojele, Zhang, & Brook, 2006). Although parental monitoring and supervision are associated with less risky sexual behavior (Peltzer, 2010) high levels of parental control may also constrain youths' positive leisure opportunities. Excessive parental monitoring or control has been associated with fewer free time interests (Sharp et al., 2006) as well as leisure boredom (Caldwell et al., 1999).

An important finding from this study is that non-virgin, male youth who experienced high boredom in leisure were less likely to later report using condoms consistently. Among youth who are sexually active, consistent condom use is critical for preventing the transmission of HIV. Youth who are engaging in sex because they are bored, may not anticipate being sexually active and thus may not be prepared with a condom. Alternatively, the belief that using a condom will reduce sexual pleasure, a view commonly held by youth in South Africa (Taylor et al., 2007), may be a greater deterrent to condom use among sensation seeking youth. Understanding the reason behind this association is important for future interventions that aim to increase consistent condom use, particularly among high risk youth.

Male youth who experienced high levels of boredom in leisure were more likely to report using alcohol at the time of their last sexual encounter among those who ever had sex. This is consistent with past research showing boredom increases risk for alcohol use among South African youth (Sharp et al., 2011). Alcohol use may increase youth's exposure to risky situations and potential opportunities to engage in risky sex while limiting youth's ability to negotiate safe sex. For example, HIV-positive adults are less likely to use condoms on occasions when they drank moderate or heavy quantities of alcohol (Kiene, Simbayi, & Abrams, 2008), suggesting that intoxication may also impair one's judgment and limit one's ability to negotiate safe sex. Conversely, Justus, Finn, and Steinmetz (2000) found that the relationship between sexual risk behavior and alcohol use disappeared among a sample of college-aged students after accounting for sensation seeking. Although these findings may not apply to South African high school youth, the findings do suggest that both alcohol and risky sexual behavior may be used to alleviate boredom among those who are unable to find alternative means to satisfy their need for excitement.

The finding that male youth who experience high boredom in leisure are also more likely to report they were forced to have sex is surprising given that experiences of forced sex are not volitional. However, the relationship between forced sex and boredom may be mediated by increased risk for alcohol and substance use. Previous research has found youth who report using alcohol or cannabis at the time of their last sexual encounter are more likely to report that they were forced to have sex at that time (Cox, 2011). Youth who are bored are more likely to use alcohol or other substances (Sharp et al., 2011), which increases their vulnerability to experiencing forced sex. Although it is beyond the scope of the current study, future research should examine the mechanisms through which boredom influences forced sex.

Male youth who reported high boredom in leisure were also more likely to report more sexually aggressive attitudes, which may seem counterintuitive when considered along with

the finding that high levels of boredom are associated with later reports of being forced to have sex. However, this is consistent with past literature that suggests youth who report having experienced forced sex are also more likely to hold more permissive views toward sexual aggression (Andersson et al., 2004) and to report having forced someone to have sex (Andersson & Ho-Foster, 2008). Furthermore, unsupervised peer group settings may foster sexually aggressive attitudes as adolescents are particularly susceptible to peer pressure (Steinberg & Monahan, 2007) and are more likely to engage in risky behaviors when in group settings (Gardner & Steinberg, 2005).

The finding that ninth grade boredom in leisure was associated with lower female risk of using cannabis at last sex was surprising. As previously discussed, sexual activity among young women in this sample is extremely uncommon, regardless of boredom level. Consequently there is likely something different about the minority of female youth who were sexually active that may limit the generalizability of the current study to other South African females. Research suggests youth who initiate sex at an early age are more likely to engage in risky behaviors (Palen, Smith, Caldwell, Mathews, & Vergnani, 2009; Peltzer, 2010; Vasilenko, Cox, Smith, & Caldwell, 2013); therefore, it is possible that South African female youth who are the first among their peers to initiate sex may be a small group of youth who engage in more deviant behaviors. Future research should examine the role of boredom on sexual risk behaviors among older female youth, an age when sexual activity is more normative.

Limitations

The current study provides an important contribution to the literature on boredom in leisure and risk behavior by providing a quantitative and longitudinal look at the impact of boredom in leisure on sexual risk, which has had limited attention in the literature; however, several limitations should be noted. First, although the homogeneity of the sample reduces the likelihood that the findings are influenced by confounders, the findings may not be generalizable to youth outside of this region of South Africa.

Second, the analyses for the current study were based on self-report data, which may be biased if youth do not reliably respond to the survey questions. Although multiple forms of data collection can reduce bias, alternative methods of data collection regarding sexual activity are not possible. Furthermore, measures of sexual activity may be particularly prone to social desirability bias as cultural attitudes toward sexual activity dictate what behaviors are viewed as appropriate for youth. All attempts were made to assure youth that their responses were confidential. The use of PDAs for data collection may also help reduce potential bias. Past research has found that the use of computers greatly increases rates of reporting on sensitive questions relative to paper-based surveys as there is greater confidence in the confidentiality of the survey (Rumakom, Guest, Chinvarasopak, Utarmat, & Sontanakanit, 2005).

Lastly, despite the longitudinal nature of the current study, the present study does not rule out a potential bidirectional relationship between sexual risk behavior and boredom in leisure, or the possibility that sexual risk behavior increases experiences of boredom. Future research should examine the developmental trajectories of boredom in leisure and sexual

risk behaviors and how the relationship between the two varies over time to further disentangle this relationship. Furthermore, the six month period between waves may be too long a time frame for measuring the influence of boredom on sexual behaviors. Advances in data collection procedures that allow for smaller lapses in time between measures, such as ecological momentary assessments, would be valuable for understanding the immediate effects of boredom in leisure on youth risk behavior.

Practical Implications

Despite the limitations of the study, the findings provide evidence of an association between boredom and sexual activity. While the current research is exploratory, the findings suggest that further research in this area is critical as the relationship between boredom and sexual risk behavior may have implications for prevention programs that aim to delay sexual initiation, reduce sexual risk behaviors, and prevent the spread of HIV. Extreme levels of boredom during leisure time are troubling as these youth are missing opportunities for growth that emerge from intrinsically motivated, self-directed, fun, and enjoyable leisure activities. Results from this study suggest that the provision of recreation resources in under-resourced areas may be beneficial. Interventions, such as leisure education programs, should aim to help reduce youth's experiences of boredom through helping youth learn how to find these opportunities and restructure their time into healthy leisure activities to reduce their likelihood of using risk behaviors as a means to cope with boredom.

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TABLE 1

Descriptive Statistics for the Sample

	Male (<i>n</i> = 745)	Female (<i>n</i> = 950)	Total (<i>n</i> = 1695)
Age (<i>M</i>)	15.1	14.9	15.0
Female	—	—	56.10%
Race			
Coloured	691 (94.7%)	882 (93.6%)	1573 (94.1%)
Black	19 (2.6%)	37 (3.9%)	56 (3.5%)
White	13 (1.8%)	17 (1.8%)	30 (1.8%)
Indian	2 (0.27%)	4 (0.42%)	6 (0.36%)
Other	5 (0.7%)	2 (0.21%)	7 (0.42%)
Religion			
Christian/Catholic	469 (63.0%)	634 (66.8%)	1103 (65.1%)
Islam	249 (33.4%)	286 (30.1%)	535 (31.6%)
Other	27 (3.6%)	29 (3.1%)	56 (3.3%)
High boredom in leisure	77 (10.3%)	91 (9.6%)	168 (9.9%)
Ever had sex			
Wave 4	169 (22.7%)	84 (8.9%)	253 (14.9%)
Wave 5	212 (28.5%)	119 (12.5%)	331 (19.5%)

Note. Descriptive statistics are from Wave 4 unless otherwise specified. *M* = mean.

Chi-Square Test of Differences and Frequencies in Wave 5 Sexual Risk Behavior by Wave 4 Level of Leisure Boredom

TABLE 2

Sexual Risk Behavior	Full Sample (n = 1695)			Males (n = 745)			Females (n = 950)		
	Low/ Neutral	High	χ^2	Low/ Neutral	High	χ^2	Low/ Neutral	High	χ^2
Ever had sex									
No, Virgin	82.5%	61.9%	40.91 ^{***}	74.9%	42.7%	24.71 ^{***}	88.5%	78.0%	8.21 ^{**}
Yes, Nonvirgin	17.5%	38.1%		25.2%	57.1%		11.5%	22.0%	
Sexual Aggression									
No	97.3%	93.4%	6.93 [*]	95.0%	85.9%	8.71 ^{**}	98.9%	98.9%	0.01
Yes	2.7%	6.6%		5.0%	14.1%		1.1%	1.2%	
Nonvirgin Youth Only									
All Nonvirgins (n = 331)									
Males (n = 212)									
Females (n = 119)									
Relationship to Partner									
Just met	10.2%	20.3%	5.00 [*]	13.7%	20.5%	1.25	4.1%	20.0%	6.66 ^{**}
Known awhile/dating	80.6%	79.7%		86.3%	79.6%		95.9%	80.0%	
Used Alcohol at Last Sex									
No	72.2%	59.4%	4.00 [*]	67.9%	45.5%	7.52 ^{**}	79.6%	90.0%	1.19
Yes	27.8%	40.6%		32.1%	54.6%		20.4%	10.0%	
Used Cannabis at Last Sex									
No	78.4%	76.6%	0.12	76.2%	65.9%	1.92	82.7%	100.0%	4.05 [*]
Yes	21.4%	23.4%		23.8%	34.1%		17.4%	0.0%	
Forced Sex									
No	87.3%	79.7%	2.43	85.7%	72.7%	4.17 [*]	89.9%	95.0%	0.52
Yes	12.7%	20.3%		14.3%	27.3%		10.1%	5.0%	
Always Use Condom									
Inconsistent	48.1%	60.9%	3.39	47.6%	68.2%	5.91 [*]	49.0%	45.0%	0.11
Consistent	51.9%	39.1%		52.4%	31.8%		51.0%	55.0%	

* Note. $p < .05$.

*** $p < .01$.

 $p < .001$

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