

## **A Qualitative Assessment of South African Adolescents' Motivations for and against Substance Use and Sexual Behavior**

Megan E. Patrick

University of Michigan

Lori-Ann Palen

RTI International

Linda Caldwell, Sarah Gleeson, and Ed Smith

The Pennsylvania State University

Lisa Wegner

University of the Western Cape

*Focus groups (N 5 15 groups; 8 with girls, 7 with boys) with adolescents in high schools near Cape Town, South Africa, were used to conduct a qualitative investigation of reported reasons for using and not using substances and for having and not having sex. Adolescents reported Enhancement, Negative States, Social, and Aversive Social motivations for both substance use and sexual behavior. In addition, being addicted as a reason for using drugs and rape as a context for sexual behavior were frequently reported. Motivations against behaviors included Physical/Behavioral Consequences, Ethical Objections, Social Disapproval, and Incompatible Activities and Goals reasons. Preventive interventions should address existing motivations for and against substance use and sexual behavior to acknowledge adolescents' experiences in context.*

Adolescent substance use and sexual behavior are widely recognized international public health issues (e.g., Centers for Disease Control, 2000; Chassin et al., 2004; Hulse, Robertson, & Tait, 2001; Johnston, O'Malley, Bachman, & Schulenberg, 2005; Kuntsche, Rehm, & Gmel, 2004).

These issues are of particular concern in South Africa, one of the countries with the highest rates of HIV in the world (e.g., Pithey & Morojele, 2002), and particularly high infection rates among young individuals aged 15–24 years (Dorrington, Johnson, Bradshaw, & Daniel, 2006; Pettifor et al., 2004). In total, about one quarter of HIV-infected individuals in South Africa are under the age of 25, and AIDS is responsible for 71% of all deaths in the 15–49 years age group (Dorrington et al., 2006). In the Western Cape region of South Africa approximately one third of males and one fifth of females in Grade 11 (approximately age 17) reported binge drinking in the past 2 weeks and one sixth reported using dagga (cannabis) in the past month (Parry, 2005; Plü ddermann et al., 2007). In terms of sexual behavior, 67% of South African youth ages 15–24 had engaged in penetrative sex (Pettifor et al., 2004), 9% of sexually active Grade 11 students reported having a sexually transmitted infection, and 13% reported having been pregnant or making someone pregnant (Reddy, Resnicow, Omardien, & Kambaran, 2007). Previous research on adolescents in the current population has documented the widespread use of drugs (72% reporting lifetime use of alcohol, cigarettes, dagga, or inhalants by Grade 9; Patrick et al., 2008) and engagement in sexual behavior (34% of boys and 12% of girls sexually active by Grade 10; Palen, Smith, Caldwell, Mathews, & Vergnani, 2009).

Given the importance of understanding health behaviors in the South African context, the current study is a qualitative assessment of motivations for and against substance use and sexual behavior among adolescents in the Western Cape. This contributes to the literature in three ways. First, much of the research describing motivations for substance use and sexual behavior has been based on survey data and quantitative analysis. Although informative, survey data limits the ability of respondents to report the motivations that are most salient to them. The second contribution of this paper is to report on reasons adolescents say they avoid substance use and sexual behavior, something that is understudied in comparison with motivations for these behaviors. Finally, motivations are investigated within the South African

context, extending research conducted largely among North American adolescents to another context where risk behaviors and their negative consequences are prevalent. Existing conceptual and empirical literature on reasons for and against substance use and sexual behavior among North American adolescents served as the starting point; however, we were sensitive to measuring new or contradicting motivations from our sample of South African adolescents.

## **MOTIVATIONS FOR SUBSTANCE USE**

A key question for both developmental and prevention scientists interested in adolescent health is why individuals engage in behaviors that pose risks. The theory of reasoned action (Ajzen, 2001; Fishbein & Ajzen, 1975; Madden, Ellen, & Ajzen, 1992; O'Callaghan, Chant, Callan, & Baglioni, 1997; Petraitis, Flay, & Miller, 1995), for example, states that individuals behave in a manner that is consistent with their evaluation of anticipated consequences and their perceptions of social norms. Therefore, adolescents may be choosing to engage in behaviors based on a weighing of their perceived reasons for and reasons against a behavior (Goldberg, Halpern-Felsher, & Millstein, 2002). According to the functional perspective, substance use and sexual behaviors meet a variety of individual needs for adolescents (Cooper & Shapiro, 1997; Cooper, Shapiro, & Powers, 1998). For example, some evidence suggests that social drinkers may engage in more moderate alcohol use whereas individuals with coping motivations may be most likely to have drinking problems and addictions (Adlaf, Zdanowicz, & Smart, 1996; Coffman, Patrick, Palen, Rhoades, & Ventura, 2007; Cooper, Frone, Russell, & Mudar, 1995; Cox & Klinger, 1988; Kuntsche, Knibbe, Gmel, & Engels, 2005). Therefore, understanding variation in motivations is important in predicting and seeking to change risky behaviors.

Conceptual work on adolescents' reasons for risk behaviors has identified four domains of motivations: Enhancement, Social Connections, Negative States, and Aversive Social (e.g., Cooper, 1994; Cooper et al., 1998; Cox & Klinger, 1988). Enhancement motivations involve the perception that using drugs will create or magnify positive experiences and/or emotions. Reasons for using substances that may

be categorized as Enhancement motivations include excitement (Adams et al., 2003), recreation (Christopherson, Jones, & Sales, 1988), pleasure (Ahmadi & Ghanizadeh, 2000; Miller & Plant, 2002), enjoyment (Lee, Neighbors, & Woods, 2007), and experimentation or curiosity (Christopherson et al., 1988; Haden & Edmundson, 1991; Lee et al., 2007). Social Connections motivations reflect adolescents' desire to strengthen relationships. Individuals who use alcohol and other drugs with their peers to create or maintain closer relational ties generally have Social motivations (Cooper, 1994). These motivations have been described as sociability (Adams et al., 2003), celebration or holidays (Christopherson et al., 1988; Haden & Edmundson, 1991), social enhancement (Lee et al., 2007), and to have a good time with friends (Haden & Edmundson, 1991).

Adolescents motivated by Negative States (also called Coping motivations) use substances to deal with unpleasant emotions and threats to self-esteem (Cox & Klinger, 1988). In this case, the pharmacological effects of substances may be used to cope with negative arousal or the negative and stressful experiences adolescents are facing (Spear, 2000). Negative States motivations are often described as coping mechanisms (Adams et al., 2003; Miller & Plant, 2002) and can include overcoming boredom (Christopherson et al., 1988; Haden & Edmundson, 1991; Lee et al., 2007) or lacking interesting leisure opportunities (McIntosh, Macdonald, & McKeganey, 2005), managing stress (Christopherson et al., 1988), escaping problems (Haden & Edmundson, 1991), sedation (Adams et al., 2003), relaxation or tension reduction (Ahmadi & Ghanizadeh, 2000; Haden & Edmundson, 1991; Lee et al., 2007), dealing with bad moods or depression (Ahmadi & Ghanizadeh, 2000; Haden & Edmundson, 1991), feeling better about one's self (Haden & Edmundson, 1991), and altering reality (Adams et al., 2003). Situations involving peer pressure to use substances, as well as taking drugs to avoid negative social interactions, are labeled Aversive Social or Conformity motivations (Cooper, 1994). Adolescents report that their reasons for using substances involve peer and social pressure (Adams et al., 2003; Christopherson et al., 1988), belonging (Miller & Plant, 2002), and conformity (Cooper, 1994; Lee et al.,

2007).

## **MOTIVATIONS FOR SEXUAL BEHAVIOR**

The four motivations for substance use (i.e., Enhancement, Social Connections, Negative States, and Aversive Social) have been similarly applied to sexual behavior models (Cooper et al., 1998). Enhancement motivations for sexual behavior involve perceived positive emotions and experiences, including pleasure (Leigh, 1989; Patrick, Maggs, Cooper, & Lee, 2010), exploration (Sanderson & Cantor, 1995), and sexual arousal (for male adolescents; Eyre & Millstein, 1999). Social Connections motivations for sexual behavior are largely partner focused (Patrick, Maggs, & Abar, 2007). Adolescents report having sexual intercourse to create intimacy (Sanderson & Cantor, 1995), because they love their partner (Eyre & Millstein, 1999), and to become closer to their partner (Cooper & Shapiro, 1997). These social motivations are distinct from individual enhancement motivations because they focus on a relationship involving another person rather than a feeling of personal pleasure or arousal.

Reasons for sexual behavior that reflect Negative States include overcoming threats to self-esteem by self-affirmation (Cooper et al., 1998) or regulating negative affect (Cooper & Shapiro, 1997). Therefore, sexual behavior may appeal to adolescents who recognize little value in their present lives or future opportunities (Allen, Seitz, & Apfel, 2007). Using sex to escape, avoid, or minimize negative social experiences, in particular, reflects Aversive Social motivations (Cooper et al., 1998). Udry and Billy (1987) describe the social controls, or reward and punishment structure through which friends and families facilitate or inhibit adolescent sexual behavior, as social evaluation. For example, adolescents with Aversive Social motivations may choose to have sex to avoid peer alienation or ridicule or to maintain an image (Cooper & Shapiro, 1997). In addition, having sex may be a way to gain approval from one's partner (Cooper et al., 1998). More work on the causes and consequences of adolescent sexual relationships and behaviors is needed (Furman, 2002) to

more fully describe how adolescents think about sexual behavior.

## **MOTIVATIONS NOT TO ENGAGE IN SUBSTANCE USE**

Motivations for not using substances have been less thoroughly investigated. However, we propose four domains of motivations not to engage in substance use, based on previous research reviewed: Physical and Behavioral Consequences, Ethical Objections, Social Disapproval, and Incompatible Activities and Goals. Physical and Behavioral Consequences may include arrest, embarrassment, or experiencing a hangover (e.g., Mallett, Lee, Neighbors, Larimer, & Turrisi, 2006). People who think alcohol use is harmful for their behavior or their bodies may be less likely to plan to drink and to drink heavily (Maggs, 1997). Ethical Objections may be based on religious morals or personal beliefs about the appropriateness of using substances. For example, Islam prohibits the use of alcohol, so Muslim youth may have lower rates of drinking (Gray, 2004).

Social Disapproval of behavior may also be a motivator for adolescents. Peers can have prosocial influences on adolescents (Berndt, 1992) that encourage them to avoid substance use. Parental involvement in an adolescent's life is also consistently associated with less engagement in risk behavior by adolescents when parents set firm expectations and express warmth (e.g., Baumrind, 1971). As postulated in problem behavior theory, when adolescents perceive that important others in their lives are opposed to behaviors like substance use, they may be more likely to disapprove of these behaviors and avoid them (Jessor & Jessor, 1977; Nash, McQueen, & Bray, 2005; Wallace & Fisher, 2007). For example, school-level disapproval for cannabis use is associated with decreased individual use rates (Kuntsche & Jordan, 2006). Pursuing Incompatible Activities and Goals is an additional reason adolescents report for not using substances. In looking at reasons for nonuse, McIntosh et al. (2005) found that some youth reported that they avoided drugs because they would hinder their ability to play sports or participate in other

activities. A smaller number mentioned future goals, such as getting a good job (i.e., ruin their career prospects), as justification for not using substances.

### **MOTIVATIONS NOT TO ENGAGE IN SEXUAL BEHAVIOR**

The same four domains are hypothesized for motivations against sexual behavior: Physical and Behavioral Consequences, Ethical Objections, Social Disapproval, and Incompatible Activities and Goals. Many models of sexual behavior take a “disease” perspective that generally assumes that both engagement in and avoidance of sexual behavior are motivated largely by beliefs about health consequences, although this perspective is not supported empirically (Levinson, Jaccard, & Beamer, 1995). However, fears of pregnancy and sexually transmitted diseases (STDs; Cooper & Shapiro, 1997; Leigh, 1989; Patrick et al., 2007; Sprecher & Regan, 1996) provide evidence for Physical and Behavioral motivations as one domain of important reasons to avoid or limit sex. In addition, not having a condom is sometimes a motivation to avoid sex on specific occasions (Eyre & Millstein, 1999). For sexual behavior, in particular, research has noted ethical and general moral objections (Patrick et al., 2007; Sprecher & Regan, 1996). Additional motivations against sexual behavior are not being ready for sex (Eyre & Millstein, 1999; Patrick et al., 2010) and religious attitudes or beliefs that sexual behavior is meant to be reserved for more committed (e.g., marital) relationships (Regenerus, 2007). As described above, Social Disapproval may be a motivation for both sexual behavior and for substance use, as parents and peers may encourage adolescents to delay sexual behavior. Finally, Incompatible Activities and Goals may also deter sexual behavior. For example, pregnancy as a consequence of sexual behavior may be recognized as a life-altering responsibility that is not desirable for adolescents (Varga, 2003).

### **MOTIVATIONS AMONG SOUTH AFRICAN ADOLESCENTS**

The majority of the literature reviewed here is based on

North American research because very little analysis has been done on motivations for substance use in other parts of the world. However, the extent to which motivations differ in South Africa is not clear. Across Africa, and even within nations, there may be a great deal of variation of motivations given cultural, gender, religious, and other socio-demographic factors. There are a number of cultural norms and values within sub-Saharan Africa, and South African subcultures specifically, that may impact motivations for substance use and sexual behavior. For example, approximately one third of our sample self-identifies as Muslim (Palen et al., 2009). Given Islam's prohibitions against substance use and premarital sex (Gray, 2004), it is possible that youth in our population are especially likely to endorse Ethical Objection motivations.

There has been some research on understanding South African adolescents' motivations for sexual activity and substance use. For example, motivations to avoid Negative States may be especially important for South African adolescents who are experiencing poverty and watching community members suffer with AIDS (Brook, Morojele, Zhang, & Brook, 2006). A qualitative study based on eight male binge drinkers contributed to what is currently known about motivations for alcohol use among adolescents in South Africa (Ziervogel, Ahmed, Flisher, & Robertson, 1998). Coping with boredom (Negative States), responding to peer pressure (Aversive Social), and experimentation (Enhancement) were reasons for alcohol use. Additional perceived rewards from substance use included self-confidence and adult status. A second study of the motivations for substance use in Pretoria, South Africa, was questionnaire based (Neser, Ovens, Victor-Zietsman, Ladikos, & Olivier, 2001). Youth reported smoking cigarettes for calming or relaxing effects (Negative States), out of curiosity (Enhancement), because of the example of their friends (Social Connections), and because of peer pressure (Aversive Social; Neser et al., 2001).

In the past decade, there has been a call for research that addresses how societal values and norms impact the



sexual behavior of South African adolescents (MacPhail, 1998). However, to date, very little research in Africa has explored motivations for sexual behavior among adolescents. Researchers who have focused on motivations surrounding sexual behavior have almost exclusively discussed motivations for protection (e.g., intentions to use condoms; see Jemmott et al., 2007; Kalichman et al., 2006). One study in a rural Nigerian community described circumstances leading to first sexual experiences among 11–25-year-olds (Izugbara, 2001). Over a quarter of participants reported that their first sexual encounter involved being drugged, coerced, lured, or raped. Additional reasons for sex were physical urge (9% of participants) and curiosity about sex (35%). As a result of the important health and emotional consequences of sexual relationships, we focus on both reasons for and against sexual behavior in the current study.

## **THE CURRENT STUDY**

The overall purpose of the current qualitative study is to explore and describe the self-reported reasons for risk behaviors among youth in the Western Cape, South Africa. Prior conceptual and empirical work was used to frame the qualitative coding of motivations for and against risk behaviors. The extent to which these domains of motivations applied to South African adolescents is explored. Specifically we sought to (1) identify motivations for substance use and sexual behavior, (2) identify motivations against substance use and sexual behavior, and (3) describe the extent to which these motivations reflect those reported in the literature.

## **METHOD**

### **Participants**

The sample for the present study was drawn from the HealthWise South Africa clinical trial (Caldwell et al., 2004). Participants were adolescents living in Mitchell's Plain, a low-income township near Cape Town that was established during apartheid. The majority of residents in this area self-identify as part of a population of mixed African, European, and Asian descent (i.e., "Colored") with a blended ancestry (see Nsamenang, 2002). Mitchell's Plain has 25 high schools; 6 were excluded from consideration due to concerns about their ability to functionally participate and implement the intervention program. Of the remaining 19 schools, 4 were randomly selected for the HealthWise program, which consists of 12 lessons in Grade 8, followed by 6 lessons in Grade 9 provided in either English or Afrikaans. Topics range from social-emotional skills to the positive use of free time. Specific lessons focus on attitudes, knowledge, and skills surrounding substance use and sexual risk (see Caldwell et al., 2004). Five schools were subjectively matched as control sites. Focus group data are from intervention schools only, because the protocol included questions regarding the HealthWise program. Demographic information was not collected from focus group participants, but survey data from the quantitative HealthWise sample approximately 2 months after the focus groups revealed that the 8th and 10th graders were on average 14 and 16 years old, respectively (Palen, Caldwell, Smith, Patrick, & Gleeson, 2008, unpublished data). The majority of survey participants identified as Colored (87%), with the rest of the students being Black (9%), White (3%), and Indian or other (1%). At home, 61% of these survey participants reported that they spoke English, 54% reported that they spoke Afrikaans, and 6% reported that they spoke Xhosa. Primary investigators for the current study spoke only English. Therefore, learners who did not have English language proficiency were excluded from focus group participation. This decision was made so that all focus groups could be facilitated by the same two investigators for consistency in data collection and for practical reasons

surrounding transcription and coding, although this does limit the generalizability of our findings.

A list of learners identified by their teachers as able to express themselves verbally in English was used to randomly select learners for focus group participation. In each school, we had the goal of recruiting 10 students in each of four groups: 8th-grade girls, 8th-grade boys, 10th-grade girls, and 10th-grade boys. HealthWise staff spoke with selected learners to explain the study and invite participation. Interested learners were given an informational letter, a consent form to be completed by a parent or guardian, and an assent form to be completed by the youth themselves. This study was approved by the Institutional Review Boards of The Pennsylvania State University (U.S.) and Stellenbosch University (South Africa). Learners who were not interested were replaced with randomly selected learners from the lists described. The final sample was comprised of 114 learners (n = 52 males [56% 8th grade, 44% 10th grade], n = 62 females [63% 8th grade, 37% 10th grade]).

## **Procedures**

Focus group sessions, conducted separately by gender and by grade, were held in unused classrooms in the participants' schools, typically during school hours when learners could be excused from their scheduled classes. One school principal required focus groups to be held after school. High rates of absenteeism presented challenges; attendance at the 15 focus groups ranged from 4 to 10 learners in each. At one school, only two 10th-grade boys were available so the session was cancelled. Each focus group session was approximately 90 min in length and moderated by two members of the U.S. HealthWise research team (Patrick & Palen). Sessions included warm-up activities, followed by questions regarding free time activities, perceptions of the HealthWise program, and substance use and sexual behavior. Participants were offered refreshments and a

HealthWise t-shirt as tokens of appreciation.

### **Focus Group Questions**

In each focus group session, the facilitator asked the following: “Some learners your age use substances like alcohol, cigarettes, dagga [marijuana], and tik [methamphetamines]. What are some reasons why learners your age use substances?” The facilitator allowed the participants to present as many reasons as they chose. The facilitator then asked, “Some learners your age choose not to use substances. What are some reasons learners your age do not use substances?” If not spontaneously mentioned, the facilitator also probed for additional reasons having to do with friends, family, or boredom with general questions (i.e., “Any reasons to do with friends or family?”). This prompting was used to allow learners in all groups to address the same potential domains of influence, if applicable.

After the discussion about substances, the facilitator asked the participants for reasons why learners their age had sex, “Some learners your age are having sex. What are some reasons learners your age choose to have sex?” If participants mentioned forced intercourse, the facilitator acknowledged that this was a reason some people have sex but redirected the youth to discuss reasons for voluntary sexual encounters. The facilitator then asked, “Some learners your age choose not to have sex. What are some reasons learners your age choose not to have sex?” As with substances, both of these sexual motivation questions were followed with questions about friend, family, and boredom motivations when not spontaneously mentioned.

### **Data Analysis**

All sessions were audiotaped and transcribed verbatim by a South African transcriptionist to maximize accuracy given dialectical differences. Members of the United States and South African research teams checked all

transcripts for accuracy before transcript data were entered into Atlas.ti computer software. To achieve reliability (see Creswell & Plano Clark, 2007) each of three coders (Patrick, Palen, & Gleeson) independently coded all transcripts using a common coding scheme while also noting comments that did not fall under an existing code. The three coders met regularly to discuss their coding of the transcripts and resolve any discrepancies by group consensus. Consistent with the constant comparative method for establishing validity using qualitative methods (Silverman, 2005), the coding scheme was modified to accommodate comments that did not clearly fit into an original code. Quotation lists for each code were then reviewed by all coders and a principal investigator on the HealthWise project (Caldwell) to verify that codes were used consistently and validly across all 15 transcripts. This external audit procedure is described elsewhere (Creswell & Miller, 2000).

The coding scheme was developed based on prior research and theory (e.g., Cooper, 1994; Cooper et al., 1998) regarding motivations. Statements

regarding motivations for alcohol use and sexual behavior were coded into four general types of motivations as described previously (with subcodes, if applicable): Enhancement (enhancing positive experiences or emotions; i.e., fun/feel good, physical effects, curiosity/experimentation), Escaping Negative States (escaping or avoiding negative emotions and threats to self-esteem; i.e., coping, self-esteem, gaining attention, boredom), Social Connections (enhancing social relationships; i.e., fitting in, intimacy, to have a baby [sex only]), and Aversive Social (escaping or avoiding negative social experiences; i.e., peer pressure, fear of rejection, family influence). Motivations not to engage in substance use and sexual behaviors were coded as reflecting unwanted Physical or Behavioral Consequences (e.g., avoid physical effects of substances, avoid AIDS), Ethical Objections (i.e., religion, waiting until older), Social

Disapproval of the behavior (i.e., friends disapprove, family disapproves), and Incompatible Activities and Goals (i.e., engaged in alternative activities, school as priority). Responses that did not reflect any of these motivations were placed under a separate Other code. Coders were instructed to devise new codes when necessary to capture the true meaning of responses. In addition, coded categories were not fully mutually exclusive; each statement was given as many codes as necessary to capture its meaning.

## **FINDINGS**

### **Motivations for Substance Use**

Tables 1 and 2 display the number of focus groups during which each motivation was mentioned. At least one Enhancement motivation was reported in all groups. Participants in 12 groups reported having fun or feeling good as a reason for substance use. For example, a 10th-grade boy said, “it makes you feel ‘lekker’ (good) and stuff like that . . . they say you, like, you on cloud nine.” Desirable physical effects of drugs were reported in 10 groups. An 8th- grade boy said that some learners “use the drugs, like, in the night before they go to sleep to keep them awake.” A 10th-grade boy said, “some do sports and then they do ‘E’ [ecstasy] or something, energy booster, the drug that gives you energy so you will be better at the sport.” Intoxication itself was also reported as a desirable physical effect, “when you intoxicated you can like say anything to your friend, you can do anything, no one can stop you” (10th-grade boy). Curiosity or experimentation was mentioned by adolescents in seven groups as a motivation for using substances. A 10th-grade girl stated:

Say for instance be four or five girls and just sitting there do nothing, watching TV the whole day already and they have money and the shop where they sell the stuff is near to us and just out of the blue we’ll just say, lets go buy Tik and we’ll see how

it feels.

TABLE 1  
Number of Focus Groups in Which Motivations for Substance Use and Sexual Behavior Were  
Mentioned

	<i>Motivations for Substance Use</i>	<i>Motivations for Sexual Behavior</i>
Total groups	15	15
<i>Enhance positive states</i>	15	11
Fun	12	6
Physical	10	3
Experiment	7	8
<i>Avoid negative states</i>	15	9
Coping	15	1
Lack of self-esteem	2	1
To get attention	4	1
Boredom	9	7
<i>Enhance social connections</i>	13	15
To fit in	13	12
To have a baby	—	9
Intimacy	—	4
<i>Avoid negative social experiences</i>	15	13
Peer rejection	15	7
Family issues	14	2
Partner pressure	—	8
<i>Other</i>	8	13
Intoxication leading to sex	—	5
Money	—	3
Look/act older	—	5
Addiction	12	—

Substance use to Escape Negative States was reported in all groups. This involved using alcohol and other drugs to cope, to overcome a lack of self-esteem, to get attention, and because of boredom. Substance use “takes your mind off of everything” (8th-grade boy). When experiencing problems, “you do drugs so that, just to make you feel better, like, calm you down” (10th-grade girl). Problems described were immediate (e.g., getting into trouble with parents) and in the past. For instance, people use drugs “to forget about things . . . things that was done to them” (10th-grade boy). Adolescents in two groups reported that drugs help learners overcome a lack of self-esteem. A 10th-grade boy reported, “like, I’m talking to you and maybe smoke to be confident.” Youth in four focus groups mentioned getting attention as a reason for adolescents to

use drugs. For instance, some girls “smoke to get attention of the guy” (8th-grade girl). Boredom was a reason for substance use discussed in nine groups. “They will also will go do it because they unoccupied, they don’t know what to do” (10th-grade boy).



TABLE 2  
Number of Focus Groups in Which Motivations Against Substance Use and Sexual Behavior  
Were Mentioned

	<i>Motivations Against Substance Use</i>	<i>Motivations Against Sexual Behavior</i>
Total groups	15	15
<i>Physical/behavioral</i>	15	15
Avoid crime/other negative behaviors	13	—
Physical effects	13	—
STDs	—	15
Pregnancy	—	14
<i>Ethical</i>	3	10
Religious	1	6
Waiting	—	9
<i>Avoid social disapproval</i>	12	10
From friends	7	2
From family	7	9
<i>Incompatible activities and goals</i>	12	12
Alternative activities	10	5
Future goals	5	7
<i>Other</i>	4	7
Self-esteem	2	4

Many adolescents reported substance use to enhance Social Connections and fit in with their peer group. Learners in 13 groups responded that their peers engage in substance use to fit in with their friends, to be more social, or to be cool. Learners use substances because “they want to be ‘kwaai’ (macho)” (8th-grade boy), “to be cool” (10th-grade girl), or “to be popular” (10th-grade girl). “Some people, um, they smoke just to be in the crowd . . . you see, like, in school, like, to fit in,” stated an 8th-grade girl. When asked why learners his age use drugs, an 8th-grade boy said, “they don’t actually like it . . . they’re trying to impress their friends and smoke.”

Substance use was also described as a common reaction to Aversive Social experiences, including fear of rejection or peer and family pressure. The following dialog with an 8th-grade girl demonstrates this point.

Interviewee: The people outside around in your road, like in the environment, they influence you. They just do the drugs in front of you.

Interviewer: You see people doing drugs.

Interviewee: Yes, and then they influence you to do it. Then you can't say no because otherwise they will do something to you.

Interviewer: Okay, so they threaten you.

Interviewee: They threaten you, yes Miss. They tell you that if you don't do it then I'm gonna tell your mommy you do this and this.

Peer pressure, or fear of rejection by peers, was an issue raised in every focus group. For example, some learners use drugs because of the “wrong friends. . . It's like peer pressure, they force you to go with them . . . to go smoke something” (8th-grade boy). Another boy, in 10th grade, said that “some don't want to feel like the outsider, you feel, like, pressured into smoking.” Others were concerned their friendship wouldn't last if they refused to use substances with friends. “They afraid if they don't do the same thing that their friend is not gonna be their friend anymore” (8th-grade girl). Some participants mentioned that they would experience name calling, that friends would “like tell you, ‘Ah, don't be like a “moffie” [gay]” (10th-grade boy).

The negative influence of family was reported as a reason to use substances by adolescents in 14 of the 15 groups. For instance, “they want to show people ‘I can do what I want to do, like my parents don't care about me” (8th-grade boy). A 10th-grade girl talked about pressure from family members, “Parents, that's the main obstacle there is, that pressure on you. And they don't believe you when you tell them the truth and it drives you to things like that.” In addition, modeling by family members was mentioned multiple times, such as “some of them do drugs because, um, say one or two from their families also do drugs and then they also wanna try to do drugs” (8th-grade boy). In addition, family problems were often mentioned as a motivator for using substances to cope: “Family problems . . . their mother and their father, they have problems and they don't live together anymore” (8th-grade boy) or

“abuse at home” (8th-grade boy).

Other substance use motivations were reported by participants in 8 of the 15 groups. These comments included to act older (n 5 1), getting accused of using (n 5 1), lack of parental monitoring or role models (n 5 2), seeing it on TV or on the streets (n 5 2), getting tricked (n 5 1), and craving (n 5 1). References to drug dependence were also common (n 5 12 groups). Addiction was discussed in the context of why some youth continued to use substances, as well as a health reason for not initiating use. A 10th-grade female explained, “You experiment [with] it now and then you get addicted and afterwards you not doing it because you want to do it, because you have to, you addicted to it and you have to.”

### **Motivations Against Substance Use**

In all groups, Physical and Behavioral reasons to avoid substance use were discussed (see Table 2). Learners in seven groups reported general reasons, such as, that substance use “makes you stupid” (10th-grade boy). A 10th-grade girl also said about drug use:

It changes you as a person as well, not just the outside, not just what you like, but the kind of person you are. It changes, you become more aggressive and, like, if you, if you know you addicted to this drug and so and now you can't find it anywhere you become, it's, like, you wanna push everybody away.

Substance use leading to crime was mentioned by learners in 13 groups. Learners reported that they did not want to begin stealing or get arrested for fighting because of substance use:

Well, if you are a drug addict and, um, like, you gonna work, like, for the week and so because you know that the money that, the money that you get is gonna help to support, um, your addiction. But

then at the end of the day you gonna think, “But I have to have this today.” And then you going to start doing it every day ‘cause you know you have money now to buy it and then you not going to work and then you gonna lose out on the job. And because of that then you won’t find another job or so, and you start stealing (10th-grade girl).

A 10th-grade boy said that some learners choose not to use drugs “because you can accidentally rape a girl or something.”

Negative physical effects of drugs were mentioned as reasons to choose not to use substances. One 8th-grade boy said, “If you don’t do drugs your face stay the same, and if you do drugs this goes in like this, like your face, and you get pimples in your face and your face change.” Other physical effects included smelling, rotting teeth, yellowing eyes, difficulty exercising, coughing, fainting, lung or brain damage, heart attack, cancer, and death. Hallucinations were also mentioned: “Some people think you mad when you use drugs because some people talk to themselves” (8th-grade girl), or “make you paranoid” (10th-grade boy).

Ethical reasons to avoid substance use were mentioned by participants in only 3 of 15 groups. Two of these groups made general mentions, such as “they know what is wrong and what is right” (8th-grade girl). One of these groups mentioned religion as a specific reason.

Social Disapproval for substance use was identified in 12 focus group sessions. General comments were, “I think people who do drugs are stupid” (8th-grade boy) and “People, they don’t want others to know that they doing drugs” (8th-grade boy). Youth in seven groups mentioned friends’ disapproving of behavior as a reason not to use drugs. A 10th-grade boy said a reason not to use substances is, “your girlfriend don’t think it’s cool.” Another 10th-grade boy reported that “sometimes you don’t have that kind of friends that do such things.” In

addition, learners in seven groups identified disapproval of substance use by family as a reason. An 8th-grade girl said that “strong love can keep you from doing that [drugs].” “Some learners feel that they gonna lose their, their, their families” (8th-grade girl). Fear of punishment was also mentioned: “Mom find out . . . just now they find out then you in big trouble” (10th-grade boy).

Involvement in Incompatible Activities and Goals was identified in 12 groups as a motivation against substance use. Specifically, in 10 focus group sessions adolescents said that engagement in alternative activities prevented them from doing drugs. A 10th-grade female explained, “Those things would keep you busy all the time and if it’s fun like bungee jumping and doing wild and that then, um, they’ll forget about smoking and having sex and all those things. They’ll be more interested in swimming.” A 10th-grade boy said that if adolescents “have a lot of options then they won’t even think about the smoking.”

Reasons not to use substances that reflected future goals were mentioned by five groups. An 8th-grade boy said, “The children don’t do drugs because they want to become something in the world.” A 10th-grade girl commented that “some people have goals set for themselves like to achieve something.” When asked why some learners choose not to use substances, an 8th-grade girl said, “They choose to live a better life.”

Focus group members also raised concepts that were not captured by the qualitative codes explained above. Healthy self-esteem was brought up by youth in two focus groups as a reason to avoid substances. For example, when asked reasons why learners might avoid drugs, an 8th-grade boy said, “because if you use drugs you won’t respect yourself.” Additional reasons included having no interest ( $n = 2$ ), not enough money ( $n = 1$ ), and having learned lessons about why not to do drugs ( $n = 1$ ).

## **Motivations for Sexual Behavior**

Enhancement reasons for sex surrounding fun, physical pleasure, or experimentation were mentioned in 11 groups. Having sex because it is fun was stated in six groups. According to one 8th-grade boy, “children just like to have sex.” Physical reasons for sex were identified by adolescents in three of the groups. A 10th-grade girl commented that “sometimes it can be where, uh, you kiss and then it’s like that heat of the moment and you just feel . . . and you just feel in another world and you just do it.” A 10th-grade boy had a similar perspective: “Some people have girlfriends ‘né’ [okay], then you, like, always get, like, kissing and everything, to get that horny feeling after a while to do something.” Experimentation with sex was discussed by eight groups. For example, “Like, you now have friends and they had now had sex and you want to feel how it feels” (8th-grade boy).

Negative States reasons as motivators for sexual behavior were discussed in nine groups, although specific reasons varied across groups. Coping as a reason for sex was raised by adolescents in only one group of 8th-grade boys who said they would have sex “to take your worries away.” Another group (10th-grade girls) was the only one in which lack of self-esteem was mentioned as a reason to have sex. A third group discussed dealing with a lack of attention by having sex and having a baby. Escaping boredom or lack of alternative activities as a motivation for sexual behavior was reported by seven groups. “They don’t know what else to do” (8th-grade boy) and “better than anything else you have to do” (10th-grade boy) were responses pertaining to boredom leading to sexual behavior. A 10th-grade girl said that “some people make it [having sex] . . . a free time activity.”

Participants in all groups discussed reasons to have sex that involved Social Connections. Intimacy as a reason to engage in sexual behavior was identified in four groups (10th-graders only). Tenth-grade girls said “you wanna express love with your partner” and “to prove their love.” In a group of 10th-grade boys, one said “They think they in love . . . when they not then they really don’t know the

meaning of love.” A 10th-grade girl explained: “You don’t know how to express how you love this person so it’s like you wanna show, like you wanna give your all.”

In nine focus group sessions, having a baby (but not explicitly to get attention, as above) was reported as a motivator for sexual behavior. Eighth- grade boys said that reasons for sex included “to make babies.” A 10th-grade girl mentioned that “some people believe it’s a fashion to have a child.” Spite was also a reason for having a baby. In response to a question about why learners have sex a 10th-grade boy said, “Um, to spite your girl, to make her pregnant . . . some boys think that when you going out with a nice girl and in order for you to keep that girl is to make her pregnant.” An 8th-grade girl also said some adolescents have sex to have a baby “to spite their parents” so they can stay with the boy they are dating. An 8th-grade girl explained, “Here in Mitchell’s Plain you’ll find here one pregnant, here one pregnant . . . it’s like it’s a competition . . . they self are children, but they want to make children.”

Adolescents in 12 groups mentioned having sex to fit in or to gain social status. Participants said their peers have sex “to feel cool” (8th-grade boy), “to impress the guys” (10th-grade girl), “it’s fashionable” (10th-grade girl), and “to fit in, it’s almost like a drug” (10th-grade boy). Or, “If all your friends have sex you feel maybe, like, left out” (10th-grade girl).

Aversive Social motivations for sexual behavior were mentioned by learners in 13 focus groups. Peer pressure to have sex was stated as a motivator in seven sessions. For instance, a 10th-grade girl stated, “Nowadays if you tell someone you a virgin they will laugh you out.” Another 10th-grade girl explained, “Because you gonna be the only one who’s a virgin and they say ‘oh no, you’re a virgin, you can’t speak with me, speak about sex’ and then you feel, okay I’m also gonna have sex.” A 10th-grade boy said that if adolescents don’t have sex, “they will just say that you weak, you can’t even get a girl into bed or something.”

In eight focus group sessions, fear of rejection by the partner was given as a reason learners choose to have sex. “Some people, like, choose to have sex to please their

partners” (10th-grade girl). In another focus group session with 10th-grade girls, one commented:

Sometimes a girl will feel, no, if I say no then he’s not gonna love me and he’s gonna leave me. He’s gonna go to a other girl and they will have sex and then I will be, like, a fool if I say no, so I’m rather have sex with him.

Family influence was also mentioned in two groups. An 8th-grade girl said, “Sometimes they walk in on their parents doing it . . . and when they see their parents as doing it and they also gonna do it.” The mention of family influence was also reflected in the statement (above) by the 8th-grade girl who said some learners get pregnant to spite their parents.

In 13 groups, motivators for sex that did not reflect the domains of reasons detailed above were mentioned. Adolescents in five groups said that learners have sex because they are intoxicated with alcohol or other drugs. Having sex for money (e.g., prostitution) was mentioned in three groups. Learners in five groups also reported that adolescents engage in sexual behavior to look or behave as if they were older (e.g., “they wanna behave like adults” [8th- grade boy]). Other reasons included seeing sex on TV or late night movies (n 5 3) and previous sexual molestation (n 5 1). Issues involving sexual coercion were spontaneously mentioned in 11 groups, despite the fact that adolescents were specifically asked why learners their age choose to have sex.

### **Motivations Against Sexual Behavior**

Physical reasons against sexual behavior are clearly salient in adolescents’ minds. In all groups, learners said that avoiding AIDS and other STDs was a motivation to not have sex. An 8th-grade boy explained, “Most of the children don’t want sickness because there’s a lot of, there is a virus now going around like . . . AIDS and HIV.” An 8th-grade girl said, “They see what it does to people, they



see what they do to have it, they see what happens to them if they, like, STDs or how they suffer and things like that.” In addition, in all but one group avoiding pregnancy was stated as a reason to choose not to engage in sexual behavior. For instance, an 8th-grade boy responded, “They don’t want to do sex because if they know they can’t afford to have a baby now . . . they see the daddy doesn’t have a job and he’s still in school and then they won’t have sex.”

A 10th-grade girl elaborated on this further.

I think to myself “no man, I wanna show them I’m better, I’m gonna wait till I’m twenty-one and married and then I’m gonna have children because then I wanna support my children.” There, sometimes there is not even a kimpy [diaper] or uh milk for the child and they must go lend money but then they must think where they gonna get that money that they lend to pay back . . . I think to myself, you see rather keep your legs close.

As noted by a 10th-grade girl, “condoms are not hundred percent, um, safe” so these considerations are important.

Ethical reasons to avoid sexual behavior were discussed in 10 focus group sessions. For example, “it’s not right because you gonna be sleeping around with a lot of boys” (10th-grade girl). Of these, adolescents in six groups mentioned specifically religious reasons. A 10th-grade girl said,

I want to find a husband that’s a virgin. I want to share my life with that special person, Mr. Right, not going to another person where I get different kind of diseases. I die tonight because of what, of having different sexual partners? And which is wrong because sex before marriage is a sin.

However, a different group of 10th-grade girls said, “but even if maybe you in your religion you don’t have sex but some people do it even if maybe they not allowed to do it your religion . . . and your mother won’t know the difference.” In nine sessions at least one focus group member stated that some adolescents have beliefs that support their choice to wait to have sex. A 10th-grade girl commented, it is “just something that the family or the parents talk about and ask them just to keep it till they marry or some feel they want to keep it till they married.” A 10th-grade boy said, “Because life is only starting now, becoming like a young adult. And for you to put yourself in that situation of worrying about having sex, I think it’s still a very young age.”

Social Disapproval for sexual behavior was reported by adolescents in 10 groups. For example, girls were concerned about a reputation and name calling. Learners in two groups mentioned disapproval by friends and in nine groups said that family disapproval was a reason not to have sex. Fear of punishment (e.g., “scared for their aunty” [8th-grade girl]) was mentioned, in addition to fear of being kicked out of the house.

Participants in 12 groups gave reasons to choose not to have sex that had to do with Incompatible Activities and Goals. Engagement in alternative activities was mentioned in five groups with very similar reasons as alternative activities with substance use. Future goals that would be interfered with by sexual behavior or its potential consequences (e.g., having a baby) were discussed in seven groups. For instance, “you can’t go to clubs because you have a baby, have to stay at home, can’t have any friends anymore” (8th-grade boy). Learners said they might choose not to have sex because “they want to be successful in life” (8th-grade girl) or “because they have a career for themselves” (10th-grade girl). A 10th-grade girl said, “Think of what you in, your last year of matric [final year of high school] . . . what you gonna do, your future lies ahead and for them it’s, ‘ag, man’ pregnant.” For example, “people who have goals in

life . . . they respect themselves too much” (10th-grade girl).

Other reasons not captured in the domains discussed above were raised by members in seven sessions, including healthy self-esteem (n = 4), believing that someone would cheat on them (n = 1), deciding that you do not love the partner anymore (n = 1), regret over a previous sexual encounter (n = 1), already having a baby (n = 1), and willpower or self-control (n = 2).

## **DISCUSSION**

This study makes at least three contributions to the literature. First, this study illustrates that the hypothesized domains of motivation based on Western literature are applicable to the South African context, as described subsequently. Second, the study utilized open-ended questions to elicit responses of salient motivations for substance use and sexual behavior. Adolescents’ own voices provide insight into how they think about these behaviors. No existing data regarding motivations for and against substance use and sexual behavior among adolescents in South Africa has the scope and richness of data equal to the current study. The qualitative investigation of self-generated reasons for and against the two prevalent behaviors of substance use and sexual behavior sheds light on how adolescents think about the costs and benefits of these activities and will inform development and revision of interventions to promote health. Third, motivations not to use substances and have sex were also explored to provide a full picture of motivations surrounding behaviors. Understanding these reasons to substance use and sexual behavior is critical for informing programs designed to amplify these motivations in efforts to promote reductions in risk behaviors.

With the world’s largest HIV-positive population, South Africa is in particular need of evidence-based programs that can reduce the incidence of adolescent HIV infection

and substance use. Programs that seek to change adolescent behavior, however, must be based on a comprehensive understanding of the motivations that individuals have for engaging in or not engaging in drug use and sexual behaviors, because these are the most proximal antecedents of behavior (Cooper, 1994; Cox & Klinger, 1988; Kuntsche et al., 2005; Petraitis et al., 1995). Our data suggest that adolescents seem to form their motivations for and against behaviors in complex ways; for example, family reasons and peer reasons were both motivations for risk behaviors (e.g., modeling) and motivations against risk behavior (e.g., disapproval). Therefore, a nuanced understanding of the comprehensive reasons behind their behavior is needed. Qualitative data supported the importance of four previously identified motivations for risk behaviors (e.g., Cooper, 1994; Cooper et al., 1998; Cox & Klinger, 1988) in a sample of South African learners. These similarities to North American research findings suggest that these motivational types may be salient across contexts. Enhancement motivations including feeling good and having fun were mentioned in all groups as reasons to use substances and by the majority of groups as reasons to have sex. Negative States motivations, such as using behaviors to cope, were mentioned by learners in all groups as reasons for substance use and by many of the groups as reasons for sex. Social Connections were mentioned in almost all focus groups as reasons for substance use and in all groups as reasons for sexual behavior. Learners in all groups mentioned Aversive Social (e.g., peer pressure) reasons for substance use, and the majority noted them for sex. Learners provided a greater number of reasons for engaging in substance use than reasons for engaging in sexual behavior, which may reflect their relative lack of experience with sex compared with substance use. Coping and avoiding peer rejection were mentioned by every group as motivators of substance use. The single most pervasive reason for having sex was to fit in, with the next most popular response being to have a baby.

Motivations not to engage in substance use and sexual behavior were also consistent with previous research (e.g., Cooper & Shapiro, 1997; Jessor & Jessor, 1977; Leigh, 1989; McIntosh et al., 2005; Patrick et al., 2007; Sprecher & Regan, 1996), although less research has focused on motivations not to do drugs or have sex. Negative Physical or Behavioral Consequences of substance use and sexual behavior were noted in all focus groups. Importantly, pregnancy and STDs were mentioned by almost all groups, similar to Blinn- Pike's (1999) description of Fear-Based Postponement of sexual behavior. Ethical reasons not to use substances were not widespread (only discussed in three groups), although ethical reasons not to have sex were mentioned in two thirds of the groups. Social Disapproval of substance use and sexual behavior were discussed in the majority of groups as reasons not to engage in the behaviors, as were reasons related to Incompatible Activities and Goals.

Findings from this study are also compatible with other literature. For example, the Developmental Assets model (e.g., Leffert et al., 1998) was supported by youth's self-reports of influences on their reasons not to engage in substance use and sexual behavior. Assets have been shown to be protective for substance use (Oman et al., 2004) and sexual behavior (Perkins, Luster, Villarruel, & Small, 1998) among American youth. In this South African sample, adolescents specifically mentioned support by family, family boundaries, positive peer influences, commitment to education, positive values, and sense of purpose (see Leffert et al., 1998, for descriptions of the assets).

Adolescents' self-reported reasons for and against substance use and sexual behavior must be understood within their contextual pressures and realities (Eaton, Flisher, & Aaro, 2003). In the South African context where drug use and addiction are prevalent (e.g., Plüddermann et al., 2007; Ziervogel et al., 1998), where sex among

adolescents frequently involves coercion or force (Eaton et al., 2003; Izugbara, 2001), and where teenage pregnancy rates are high (Manzini, 2001), these issues need to be specifically addressed in educational and treatment programs by incorporating known motivations for these behaviors. First, the frequent mentions of adolescents continuing substance use because of an addiction suggests an awareness of and concern over the development of physiological cravings that are beyond psychological control. Second, many focus group participants spontaneously raised the issue of rape, that sexual behavior can be out of an individual's own control. Third, pregnancy was frequently discussed as a salient outcome of sexual behavior. Fertility is a valued sexual outcome for both genders; however, adolescent pregnancy is often stigmatized, especially for girls (Varga, 2003). Therefore, pregnancy may clearly be both a reason to have and to avoid sexual intercourse.

As a result of these contextual realities, education about addiction and rape may need to be integrated into health curricula, and counseling should be offered in schools. Ethical reasons not to use substances were less frequently reported by adolescents, suggesting that capitalizing on other motivations against use, such as incompatible activities and goals, may be more fruitful in intervention. Adolescents recognized the physical and social motivations both for risk behaviors and to avoid risk behaviors. For example, the high of substances is an important motivator while the deleterious physical consequences are also a concern. Long-term consequences including trouble with the law and STDs were identified by adolescents as important motivators against behavior. However, the relative salience of these long-term motivations to avoid risk behaviors, as compared with immediate effects (e.g., having fun, peer pressure), requires further investigation. Consistent with the ideas of motivational interviewing (Miller & Rollnick, 1991), helping adolescents articulate their own future goals may increase their motivations to avoid drug use and sexual activity.

## **Limitations and Future Directions**

Limitations of the current study include the focus on a single community near Cape Town, South Africa. The extent to which the motivations for and against substance use and sex reported by adolescents at the four schools contributes to understanding adolescents elsewhere is unknown. All focus group members attended schools where the HealthWise intervention program was being implemented. HealthWise has some promising effects on alcohol use, cigarette use, and access to condoms (Smith et al., 2008) that may have affected the way adolescents responded to questions related to risk behaviors. Participants were also exclusively English speaking, and the literature review for this paper was limited to publications in English. Future research should investigate how language may serve to influence participants' motivations in regard to risk behaviors. Finally, qualitative data were coded with a combination of a priori categories, new codes, and facilitator prompting to cover a range of potential reasons for and against use. These decisions may have affected results.

Future research regarding how adolescents weigh the costs and benefits, or reasons for and against, engagement in substance use and sexual behavior is needed. Identifying both perceived positive and perceived negative consequences, individuals have to balance the importance and likelihood of consequences to make decisions. Examining the ways adolescents do this on average, on given occasions, and with specific peer groups will lead to deeper understanding of motivations that may lead to more effective programs that can promote adolescent health. In addition, understanding the ways in which motivations and perceived costs and benefits change across adolescence may identify sensitive periods of development during which intervention programs can be maximally effective.

## ACKNOWLEDGMENTS

Support for this research was provided by funding from NIDA (R01 DA01749, PI E. Smith; T32 DA 017629, PI M. Greenberg, predoctoral training fellowships awarded to M. Patrick and L. Palen) and NIAAA (F31 AA017014-01 to M. Patrick). We would like to thank Xavier September and Inshaaf Evans for their support in data collection.

## REFERENCES

- Adams, J. B., Heath, A. J., Young, S. E., Hewitt, J. K., Corley, R. P., & Stallings, M. C. (2003). Relationships between personality and preferred substance and motivations for use among adolescent substance abusers. *The American Journal of Drug and Alcohol Abuse*, 29, 691–712.
- Adlaf, E. M., Zdanowicz, Y. M., & Smart, R. G. (1996). Alcohol and other drug use among street-involved youth in Toronto. *Addiction Research*, 4, 11–24.
- Ahmadi, J., & Ghanizadeh, A. (2000). Motivations for use of opiates among addicts seeking treatment in Shiraz. *Psychological Reports*, 87, 1158–1164.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52, 27–58.
- Allen, J. P., Seitz, V., & Apfel, N. H. (2007). The sexually mature teen as a whole person: New directions in prevention and intervention for teen pregnancy and parenthood. In J. L. Aber, S. J. Bishop-Josef, S. M. Jones, K. T. McLern, & D. A. Phillips (Eds.), *Child development and social policy: Knowledge for action* (pp. 185–199). Washington, DC: American Psychological Association.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monograph*, 4, 1–103.
- Berndt, T. J. (1992). Friendship and friends' influence in adolescence. *Current Directions in Psychological Science*, 1, 156–159.
- Blinn-Pike, L. (1999). Why abstinent adolescents report they have not had sex: Understanding sexually resilient youth. *Family Relations*, 48, 295–301.
- Brook, D. W., Morojele, N. K., Zhang, C., & Brook, J. S. (2006). South African adolescents: Pathways to risky sexual behavior. *AIDS Education and Prevention*, 18, 259–272.
- Caldwell, L. L., Smith, E. A., Wegner, L., Vergnani, T., Mpofo, E., Flisher, A. J., et al. (2004).
- HealthWise South Africa: Development of a life skills curriculum for young adults. *World Leisure*, 3, 4–17.
- Centers for Disease Control. (2000). *Health, United States*. Hyattsville, MD: National Center for Health Statistics.
- Chassin, L., Hussong, A., Barrera, M., Molina, B. S. G., Trim, R., & Ritter, J. (2004). Adolescent substance use. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed., pp. 665–696). New York, NY: Wiley.
- Christopherson, B. B., Jones, R. M., & Sales, A. P. (1988). Diversity in reported motivations for substance use as a function of ego-identity development. *Journal of Adolescent Research*, 3, 141–152.
- Coffman, D., Patrick, M. E., Palen, L., Rhoades, B. L., & Ventura, A. K. (2007). Why



- do high school seniors drink? Implications for a targeted approach. *Prevention Science*, 8, 241–248.
- Cooper, M. L. (1994). Motivations for alcohol use among adolescents: Development and validation of a four-factor model. *Psychological Assessment*, 6, 117–128.
- Cooper, M. L., Frone, M. R., Russell, M., & Mudar, P. (1995). Drinking to regulate positive and negative emotions: A motivational model of alcohol use. *Journal of Personality and Social Psychology*, 69, 990–1005.
- Cooper, M. L., & Shapiro, C. M. (1997). Motivations for health behaviors among adolescents. In J. A. McNamara & C. A. Trotman (Eds.), *Creating the compliant patient, Craniofacial growth series* (Vol. 33, pp. 25–46). Ann Arbor, MI: Center for Human Growth and Development.
- Cooper, M. L., Shapiro, C. M., & Powers, A. M. (1998). Motivations for sex and risky sexual behavior among adolescents and young adults: A functional perspective. *Journal of Personality and Social Psychology*, 75, 1528–1558.
- Cox, W. M., & Klinger, E. (1988). A motivational model of alcohol use. *Journal of Abnormal Psychology*, 92, 168–180.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39, 124–130.
- Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Dorrington, R., Johnson, L., Bradshaw, D., & Daniel, T. J. (2006). *The demographic impact of HIV/ AIDS in South Africa: National and provincial indicators for 2006*. Cape Town, South Africa: Centre for Acturial Research, South African Medical Research Council, and Actuarial Society of South Africa.
- Eaton, L., Flisher, A. J., & Aaro, L. E. (2003). Unsafe sexual behavior in South African Youth. *Social Science and Medicine*, 56, 149–165.
- Eyre, S. L., & Millstein, S. G. (1999). What leads to sex? Adolescent preferred partners and reasons for sex. *Journal of Research on Adolescence*, 9, 277–307.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley Publishing Company.
- Furman, W. (2002). The emerging field of adolescent romantic relationships. *Current Directions in Psychological Science*, 11, 177–180.
- Goldberg, J. H., Halpern-Felsher, B. L., & Millstein, S. G. (2002). Beyond invulnerability: The importance of benefits in adolescents' decision to drink alcohol. *Health Psychology*, 21, 477– 484.
- Gray, P. B. (2004). HIV and Islam: Is HIV prevalence lower among Muslims? *Social Science and Medicine*, 58, 1751–1756.
- Haden, T. L., & Edmundson, E. W. (1991). Personal and social motivations as predictors of substance use among college students. *Journal of Drug Education*, 21, 303–312.
- Hulse, G. K., Robertson, S. I., & Tait, R. J. (2001). Adolescent emergency department presentations with alcohol and other drug-related problems in Perth, Western Australia. *Addiction*, 96, 1059–1067.

- Izugbara, C. O. (2001). Tasting the forbidden fruit: The social context of debut sexual encounters among young persons in a rural Nigerian community. *African Journal of Reproductive Health*, 5, 22–29.
- Jemmott, J. B., Heeren, G. A., Ngwane, Z., Hewitt, N., Jemmott, L. S., Shell, R., et al. (2007). Theory of planned behavior predictors of intention to use condoms among Xhosa adolescents in South Africa. *AIDS Care*, 19, 677–684.
- Jessor, R., & Jessor, S. L. (1977). *Problem behavior and psychosocial development: A longitudinal study of youth*. New York, NY: Academic Press.
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2005). *Monitoring the future national survey results on drug use, 1975–2004. Volume II: College students and adults ages 19–45 (NIH Publication No. 05-5728 ed.)*. Bethesda, MD: National Institute on Drug Abuse.
- Kalichman, S. C., Simbayi, L. C., Cain, D., Jooste, S., Skinner, D., & Cherry, C. (2006). Generalizing a model of health behavior change and AIDS stigma for use with sexually transmitted infection clinic patients in Cape Town, South Africa. *AIDS Care*, 18, 178–182.
- Kuntsche, E., & Jordan, M. D. (2006). Adolescent alcohol and cannabis use in relation to peer and school factors. *Drug and Alcohol Dependence*, 84, 167–174.
- Kuntsche, E., Knibbe, R., Gmel, G., & Engels, R. (2005). Why do young people drink? A review of drinking motives. *Clinical Psychology Review*, 25, 841–861.
- Kuntsche, E., Rehm, J., & Gmel, G. (2004). Characteristics of binge drinkers in Europe. *Social Science and Medicine*, 59, 113–127.
- Lee, C. M., Neighbors, N., & Woods, B. A. (2007). Marijuana motives: Young adults' reasons for using marijuana. *Addictive Behaviors*, 32, 1384–1394.
- Leffert, N., Benson, P. L., Scales, P. C., Sharma, A. R., Drake, D. R., & Blyth, D. A. (1998). Developmental assets: Measurement and prediction of risk behaviors among adolescents. *Applied Developmental Science*, 2, 209–230.
- Leigh, B. C. (1989). Reasons for having and avoiding sex: Gender, sexual orientation, and relationship to sexual behavior. *The Journal of Sex Research*, 26, 199–209.
- Levinson, R. A., Jaccard, J., & Beamer, L. (1995). Older adolescents' engagement in casual sex: Impact of risk perception and psychosocial motivations. *Journal of Youth and Adolescence*, 24, 349–364.
- MacPhail, C. (1998). Adolescents and HIV in developing countries: New research directions. *Psychology in Society*, 24, 69–87.
- Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin*, 18, 3–9.
- Maggs, J. L. (1997). Alcohol use and binge drinking as goal-directed action during the transition to postsecondary education. In J. E. Schulenberg, J. L. Maggs, & K. Hurrelmann (Eds.), *Health risks and developmental transitions during adolescence* (pp. 289–304). New York, NY: Cambridge University Press.
- Mallett, K. A., Lee, C. M., Neighbors, C., Larimer, M. E., & Turrisi, R. (2006). Do we learn from our mistakes? An examination of the impact of negative alcohol-related

- consequences on college students' drinking patterns and perceptions. *Journal of Studies on Alcohol*, 67, 269–276.
- Manzini, N. (2001). Sexual initiation and childbearing among adolescent girls in KwaZulu Natal, South Africa. *Reproductive Health Matters*, 9, 44–52.
- McIntosh, J., MacDonald, F., & McKeganey, N. (2005). The reasons why children in their pre and early teenage years do or do not use illegal drugs. *International Journal of Drug Policy*, 16, 254–261.
- Miller, P., & Plant, M. (2002). Heavy cannabis use among UK teenagers: An exploration. *Drug and Alcohol Dependence*, 65, 235–242.
- Miller, W. R., & Rollnick, S. (1991). *Motivational interviewing: Preparing people to change addictive behavior*. New York, NY: Guilford Press.
- Nash, S. G., McQueen, A., & Bray, J. H. (2005). Pathways to adolescent alcohol use: Family environment, peer influence, and parental expectations. *Journal of Adolescent Health*, 37, 19–28.
- Neser, J. J., Ovens, M., Victor-Zietsman, M. J., Ladikos, A., & Olivier, K. (2001). Views of learners on drugs and related matters: Preliminary findings. *Crime Research in South Africa*, 3, 15–25. Retrieved from <http://www.crisa.org.za>
- Nsamenang, A. B. (2002). Adolescence in sub-Saharan Africa: An image constructed from Africa's triple inheritance. In B. B. Brown, R. W. Larson, & T. S. Saraswathi (Eds.), *The world's youth: Adolescence in eight regions of the globe* (pp. 61–104). Cambridge, UK: Cambridge University Press.
- O'Callaghan, F. V., Chant, D. C., Callan, V. J., & Baglioni, A. (1997). Models of alcohol use by young adults: An examination of various attitude-behavior theories. *Journal of Studies on Alcohol*, 58, 502–507.
- Oman, R. F., Vesely, S., Aspy, C. B., McLeroy, K. R., Rodine, S., & Marshall, L. (2004). The potential protective effect of youth assets on adolescent alcohol and drug abuse. *American Journal of Public Health*, 94, 1425–1430.
- Palen, L., Smith, E. A., Caldwell, L. L., Mathews, C., & Vergnani, T. (2009). Transitions to substance use and sexual intercourse among South African high school students. *Substance Use and Misuse*, 44, 1872–1887.
- Parry, C. D. H. (2005). Substance abuse trends in the Western Cape: Summary. Presentation at the launch of the Western Cape Substance Abuse Forum, 25th February 2005. Retrieved October 12, 2007, from <http://www.sahealthinfo.org/admodule/summary.pdf>
- Patrick, M. E., Collins, L. M., Smith, E., Caldwell, L., Flisher, A., & Wegner, L. (2008). A prospective longitudinal model of substance use onset among South African adolescents. *Substance Use and Misuse*, 44, 647–662.
- Patrick, M. E., Maggs, J. L., & Abar, C. C. (2007). Reasons to have sex, personal goals, and sexual behavior during the transition to college. *The Journal of Sex Research*, 44, 240–249.
- Patrick, M. E., Maggs, J. L., Cooper, M. L., & Lee, C. M. (2010). Measurement of motivations for and against sexual behavior. *Assessment* (in press).
- Perkins, D. F., Luster, T., Villarruel, F. A., & Small, S. (1998). An ecological, risk-factor examination of adolescents' sexual activity in three ethnic groups. *Journal*

- of Marriage and the Family, 60, 660–673.
- Petraitis, J., Flay, B. R., & Miller, T. Q. (1995). Reviewing theories of adolescent substance use: Organizing pieces in the puzzle. *Psychological Bulletin*, 117, 67–86.
- Pettifor, A. E., Rees, H. V., Steffenson, A., Hlongwa-Madikizela, L., MacPahil, C., & Vermaak, K., et al. (2004). HIV and sexual behavior among young South Africans: A national survey of 15–24 year olds. Johannesburg, South Africa: Reproductive Health Research Unit, University of the Witwatersrand.
- Pithey, A. L., & Morojele, N. K. (2002). Literature review on alcohol use and sexual risk behavior in South Africa. Prepared for WHO Project Alcohol and HIV infection: Development of a methodology to study determinants of sexual risk behaviour among alcohol users in diverse cultural settings. Retrieved November 19, 2007, from <http://www.sahealthinfo.org.za/admodule/review.pdf>
- Pluddermann, A., Parry, C., Cerff, P., Bhana, A., Pereira, T., Potgieter, H., et al. (2007). Monitoring alcohol and drug abuse trends in South Africa (July 1996–December 2006). *South African Community Epidemiology Network on Drug Use (SACENDU) Research Brief*, 10, pp. 1–11.
- Reddy, P., Resnicow, K., Omardien, R., & Kambaran, N. (2007). Prevalence and correlates of substance use among high school students in South Africa and the United States. *American Journal of Public Health*, 97, 1859–1864.
- Regenerus, M. D. (2007). *Forbidden fruit: Sex and religion in the lives of American teenagers*. New York, NY: Oxford University Press.
- Sanderson, C. A., & Cantor, N. (1995). Social dating goals in late adolescence: Implications for safer sexual activity. *Journal of Personality and Social Psychology*, 68, 1121–1134.
- Silverman, D. (2005). *Doing qualitative research: A practical handbook* (2nd ed.). London: Sage.
- Smith, E. A., Palen, L., Caldwell, L. L., Graham, J. W., Flisher, A. J., Wegner, L., et al. (2008). Substance use and sexual risk prevention in Cape Town, South Africa: An evaluation of the Health-Wise program. *Prevention Science*, 9, 311–321.
- Spear, L. (2000). Modeling adolescent development and alcohol use in animals. *Alcohol Research and Health*, 24, 115–123.
- Sprecher, S., & Regan, P. C. (1996). College virgins: How men and women perceive their sexual status. *Journal of Sex Research*, 33, 3–15.
- Udry, J. R., & Billy, J. O. G. (1987). Initiation of coitus in early adolescence. *American Sociological Review*, 52, 841–855.
- Varga, C. A. (2003). How gender roles influence sexual and reproductive health among South African adolescents. *Studies in Family Planning*, 34, 160–172.
- Wallace, S. A., & Fisher, C. B. (2007). Substance use attitudes among urban black adolescents: The role of parent, peer, and cultural factors. *Journal of Youth and Adolescence*, 36, 441–451.
- Ziervogel, C. F., Ahmed, N., Flisher, A. J., & Robertson, B. A. (1998). Alcohol misuse in South African male adolescents: A qualitative investigation. *International Quarterly of Community Health Education*, 17, 25–41.