

## Review of qualitative studies of HIV related sexual practice among college students and adolescents: Directions for Research

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### Abstract

**Objective:** To review various published peer-reviewed literature conducted in the arena of qualitative studies concerned with HIV related sexual practice among adolescents and college students and discuss implications for research. **Data source:** An extensive search of five databases was completed. The inclusion criteria for all researches consisted of all qualitative peer-reviewed research articles pertaining to adolescents and college students published in the English language since 1981. The exclusion criteria were all peer-reviewed articles related to qualitative research published in languages other than English and articles related to populations other than adolescents and college students. **Data synthesis:** An instrument developed by the McMaster University Occupational Therapy Evidence-Based Practice Research Group called Guidelines for Critical Review Form was used to synthesize collected articles. **Results:** Important findings were: support of participants for sexuality education, attitudes towards safer sex, parents support for safer sex messages in schools, and sexual risk behaviors being due to gender power differentials. **Conclusions:** Qualitative research methodologies enable researchers to explore how and why persons think, feel and behave as they do in sexual behaviors.

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*Keywords: Safer sex, college students, qualitative studies, HIV/AIDS*

### Introduction

The HIV/AIDS epidemic has taken a tremendous toll on the population of United States. There was an estimated 1,147,697 cases diagnosed and reported to Centers for Disease Control and Prevention (CDC) at the end of 2006 (Centers for Disease Control and Prevention (CDC, 2006). The demographic trends from 1981 - 2004 have shown that there are more cases among males than females (71.3% vs. 28.7%), more in the age-group 30-44 years, (50.8%), highest in Black, non-Hispanic population (51%), male to male sexual contact (43.5%), and heterosexual contact (34.0%) (CDC, 2006).

Although most HIV related research is targeted towards high-risk groups such as gays, prostitutes, and substance abusers, there is a good deal of evidence displaying an increase among college students as well. Engaging in

some of the safer sex activities such as, condom use, effective partner communication, and refraining from non-monogamous relationships have been suggested as preventive measures for college students (Lewis, Malow, & Ireland, 1997). Most of the studies conducted across the nation are quantitative in nature looking at the amount of condom usage (Kanekar, & Sharma, 2008; Okunlola, Morhason-Bello, Owonikoko, & Adekunle, 2006), attitudes towards condom usage (Kabbash, El-Sayed, Al-Nawawy, Shady, & Abou Zeid, 2007), the effect of substance use on condom usage (Bailey, Gao, & Clark, 2006; Parkes, Wight, Henderson, & Hart, 2007), and partner relationships and characteristics (Aalsma, Fortenberry, & Sayegh, 2006; Luke, 2006). Quantitative studies have limitations such as being deductive, confirmatory in their inherent nature, and expressing single unitary reality. Furthermore, quantitative reviews of HIV related sexual practice are abundant in literature with little qualitative aspects (Lewis,

Malow, & Ireland, 1997; Eaton, Fisher, & Aaro, 2003; Rodden, Crawford, Kippax, & French, 2008)

Qualitative studies are inherently inductive, descriptive or exploratory in nature (Bryman, & Burgess, 1994; Nevenon, & Broberg, 2000). There is no imposition of artificial structure on the phenomenon of study as this introduces distortions or biases. Qualitative literature dealing with safer sex and HIV prevention has been sparse and limited (Kippax, Crawford, Waldby, & Benton, 1990; Waldby, Kippax, & Crawford, 1993). There are mentions of few AIDS projects done in England (Holland, Ramazanoglu, & Sharpe, 1993) that are qualitative. Very few systematic reviews of qualitative research related to HIV related sexual practices in adolescents or college students have been conducted (Marston, & King, 2006; Buhi & Goodson, 2007). This article will be a useful addition to reviews of literature in the field of HIV related sexual practice among adolescents or college students.

There are very few qualitative studies that have been done relating to safer sex initiatives among college students across the world and all of them are discussed in this review (Bauman, Karasz, & Hamilton, 2007; Berne, 2000; Haglund, 2005; Kaljee et al., 2007; Lear, 1996; Morojele, Brook, Kachieng, & Millicent, 2006; Patel, Gutnik, Yoskowitz, O'Sullivan, & Kauffman, 2000; Roberts, Oyun, Batnasan, & Laing, 2005). The majority of these studies fails to mention a qualitative research design for conducting the research and is limited to focus group interview among study participants.

The aim of this review is to discuss various published peer-reviewed literature of HIV related sexual practices among college students and adolescents. Based on this review, it is the intention of this article to suggest directions for future qualitative research in this area.

## **Methods**

### **Data sources**

The strategy used for this systematic review was an extensive search of databases such as

'Academic Search Premier', 'CINAHL with Full text', 'ERIC', 'MEDLINE', and 'Psychology and Behavioral Sciences Collection'. The key words entered for this search were 'qualitative research', 'safer sex', and 'college students' and 'qualitative research', 'safer sex', and 'adolescents'.

### **Inclusion and exclusion criteria**

The inclusion criteria were all peer-reviewed articles pertaining to qualitative research which were published in the English language since 1981, when HIV/AIDS was discovered and involved participants that were adolescents and college students. The exclusion criteria were all articles that were published in languages other than English and contained populations other than adolescents and college students. There were eight studies in total which met these criteria.

### **Data extraction**

After verification of a study's eligibility for inclusion in the review; study details such as name of the study, authors, journal, research design used, data collection and data analysis methods, results and conclusion were determined informally by the researcher and is displayed in a tabular format. All the details related to these studies was extracted by a single researcher and reviewed by another researcher before the final analysis.

### **Data Synthesis**

Data was synthesized to study qualitative research relevant to safer sex among college students. The template used for this synthesis was based on guidelines for Critical Review Form for qualitative studies developed by the McMaster University Occupational Therapy

Evidence-Based Practice Research Group (Law et al., 1998). The broad headings used for creating the data pool were study purpose, literature review, study design and its appropriateness, data collection, procedural rigor, data analysis, theoretical connections, trustworthiness and conclusions.

## **Results**

The results of all the eight studies related to qualitative research referenced to safer sex among college students are shown chronologically in Table 1. This table organizes data from each study in categories of design, data collection/analysis, results, and conclusion.

The first study (Lana, 1996) uses an interactionist perspective and in-depth interviews as the data collection tool. Some of the sexual categories explored among a group of college students were transmission, information, and attitudes towards safer sex. Furthermore, emphasis was laid on approaching construction of trust and construction of risk.

The second study (Berne et al., 2000) sought to determine how Australian parents communicate with their children about sexual behavior and sexual responsibility, particularly from the aspect of providing messages. Other issues explored via focus group were abstinence-until marriage, when was it okay to have sex, responses to US policy, and teenage pregnancy in the US.

The third study (Haglund, 2006), which used a qualitative descriptive design came out with the following themes: a) early adolescents sexuality knowledge, b) support for sexuality education for early adolescents, c) recommendations for education content and the preferred methods for education delivery. Youths, along with parents, agreed that it was important for sexuality education to begin with school-age children.

The fourth study (Roberts, Oyun, Batnasan, & Laing, 2005) provided a generalized description of the social and cultural factors that affect the sexual health of Mongolian youth. Some of the emerging themes from the focus group discussions were embarrassment when discussing sexual matters, lack of knowledge about sexual matters, perceptions of condoms, concepts about what is normal and abnormal sex, gender roles and effect of alcohol intake on sexual behavior. This exploratory study, studied the interaction of culture and traditional attitudes with concepts of sexuality.

The fifth study (Morojele, Brook, Millicent, & Kachieng, 2006) examined South African adolescents' beliefs and attitudes regarding drug use, sexual risk behavior and relationship between the two behaviors concluded that drug use enhances the effects of underlying risky behaviors. Some of the beliefs about determinants of risky sexual behavior reported by these adolescents were peer pressure, masculinity, bravado, and perceived invulnerability.

The sixth study (Patel, Gutnik, Yoskowitz, O'Sullivan, & Kauffman, 2006) looked at the association between safer sex behavior among college students and patterns of reasoning, using cognitive and information processing methods to understand the process of sexual risk taking. This study showed that various patterns of condom use behaviors were associated with different types of reasoning. Rich data from narrative interviews and diary collection explained circumstances that lead to risky sexual decision making.

The seventh study (Kaljee et al., 2007) was a quantitative and qualitative study looking at sexual stigmatization and sexual behaviors among Vietnamese adolescents. Qualitative results indicated a dichotomous view of relationships in which "good" relationships were male-female non-sexual relationships and "bad" relationships were male-female sexual relationships. Quantitative analysis showed that less than fifty percent of sexually active youth reported rarely or never using condoms. Females had higher scores for perceived sexual stigma than males. This study emphasized a need to destigmatize safer sex within consenting relationships and address the issue of perceived vulnerability among these adolescents by providing accurate information about sexually transmitted diseases and condom usage.

The eighth study (Bauman, Karasz, & Hamilton, 2007), was a qualitative investigation of inner-city adolescents intention to use condoms following participation in an intensive safer sex program. Some barriers identified in this study for using condoms were situational barriers

(using condoms in real-life situations), condom availability, and compromised pleasure. Other factors on which condom use intention depended were relationship characteristic and the length of relationship along with competing intentions (achieving other goals competed with the intentions). This study emphasized the importance of alternate intentions and exceptions to intentions playing a major role in decisions about safe sexual behaviors among inner-city adolescents in New York.

### **Discussion**

All the articles read by the researchers had a purpose statement or an objective. A mixed study(qualitative and quantitative) reviewed by the researchers stated that it wanted to characterize young adults' to engage in safer sex behavior and associate this behavior with patterns of reasoning using cognitive information processing methods to understand the process of sexual risk taking (Patel, Gutnik, Yoskovitz, O'Sullivan, & Kauffman, 2006). The authors do describe using bottom-up (data review) and top down (theory review) approaches, but with little clarification. It seems that they discuss the inductive and the deductive parts of qualitative research when they talk about the data-driven reasoning and hypotheses-driven reasoning. Prior work in terms of this study is elaborately discussed. Data collection and data analyses methods are however described in detail with the use of interviews and diaries. Thematic analysis and coding scheme are adequately described and seem appropriate for the study design. Triangulations by methods and by researcher were used in this study. Ethical components of this study utilized informed consents. The study results shows that consistent and inconsistent condom use patterns were due to data-driven heuristic reasoning and the pattern shift in condom usage was due to reasoning's and feelings of uncertainty. These were consistent with the apriori objectives set of studying reasoning and decision making in college students.

The other studies in our review mentioned 'qualitative investigation' in their titles or in the article methodology. There was no mention of

the details of the design used at all. In a study with its' primary objectives as knowing adolescents' knowledge and belief about sexual risk behavior, drugs, and drug use ,focus groups were used as a method of data collection (Morojele, Brook, & Kachieng, 2006). Ethical concerns were addressed within the Institutional Review Board and the role of the researcher was fairly well described. Transcripts from the audiotaped focus groups were thematically coded and analyzed. The emerging themes and findings corroborated previous studies. This method is appropriate to get the opinions of adolescents on the issues of sexual risk behavior or drug use. Ethnographic study in this context would have been a good option if the researcher wanted to identify what risky sexual behavior and drug use means to a group of adolescents in a specific residential area in Cape Town. Unstructured interviews are a suggestion for this type of study, as participant observation is precluded due to the sensitive nature of this topic.

Similarly in another study, whose primary objective was to explore in great depths the Australian parents' perspectives about their role in sexuality education and their views of the school's role, focus groups were used as a data collection method (Berne et al., 2000). This was a good study to allow the participants to express their opinions on adolescent sexuality issues. The authors gave fairly good description of the background literature on this issue although there is no mention of a particular qualitative research design used. Sampling methods for the focus groups is explained along with mention of acquiring informed consent. Data collection and data analyses methods were well described especially when the authors talked about index tree nodes and node reports for the emerging data. There was a mention of codifying the data and putting it into themes but no procedure was mentioned. The findings of the study were consistent and reflective of the data. Overall, at the end of the study the authors were able to give a meaningful picture to the data obtained and summed up their findings succinctly.

An interesting study which tried to assess the meaning of sexual health for a particular targeted group failed to explicitly mention the main objectives or aims of that study (Lear, 1996). After mentioning that there is a deficiency of qualitative literature on the topic of sexuality in public health, the author makes her point about the used methodology of grounded theory. Theoretical perspective and theoretical sensitivity is made explicit by the researcher. The study used in depth-interviews with students to generate the data. Sampling methods and goals for sampling have been addressed. Institutional Review Board permission and informed consent were mentioned. Participant details, site details, and confidentiality issues were well addressed by the author. Data analysis and coding were mentioned but not described in detail. There were no mentions of constant comparison in data collection techniques. The conclusions from this study summarized the study findings fairly well but fail to contribute to theory development. Phenomenology could have been a better design for this kind of study where 'meaning' of sexual health for the participants could be explored.

In an exploratory study designed to encourage abstinence in adolescent age-group which identified community support for a sexuality program. The research design, learning methodologies, preferred parameters of program delivery was a 'qualitative descriptive' (Haglund, 2006). We think there is a discrepancy between the aims of the study and the data collection methodology employed. Focus groups as data collection methods would have been useful if the researchers were looking at opinions of youths, parents and community members. The researchers did not mention the research design explicitly to be used and are very vague about that. A grounded theory approach suits this study. Interviews which were audio taped were the data collection methods. The sampling strategy and description of the participants is adequately discussed. Ethical concerns were addressed. A good background review of literature is provided relevant to the topic. Data analysis is described in detail especially coding and recoding of the transcripts. The role of the researcher was well described

and the major headings of the analysis corresponded well with the study aims. The researcher addresses the concerns fairly well in the discussion and also talks about implications for the future.

An exploratory study which tried to assess the social and cultural context of sexual health for young people in Mongolia (Roberts, Oyun, Batnasan, & Laing, 2005) provided a relevant review of the past literature to make a case for the present study. This study, like some of the earlier studies, failed to mention the qualitative study design used explicitly and hence its appropriateness with the worldviews of researcher cannot be addressed. No theoretical perspective was mentioned. The research method employed in this study was 'focus groups'. Sampling of the participants was by method of purposeful sampling and a mention was made of the informed consent process. There was no mention of redundancy in data or data saturation by the researchers. Data collection was adequately discussed by the researchers who discussed researcher bias, role of the researcher and others, and the process of data collection. Procedural rigor was sufficiently maintained during this process. The data analysis method in terms of thematic coding, the rationale underlying themes, and emerging interrelationships was adequately discussed though an explicit mention of 'audit' trail was not mentioned. A meaningful picture of the phenomenon of interest did emerge from the themes studied. The researchers were not able to justify trustworthiness of this study either by triangulation or by member checking. Conclusions seemed appropriate, given the study findings.

In another qualitative investigation for studying adolescents intention to use condoms following participation in a safer sex program (Bauman, Karasz, & Hamilton, 2007), the study purpose was clearly stated. The past literature review was adequate but the researchers should have added some current citations. There was no mention of a qualitative research design used and so appropriateness of study design with researcher beliefs could not be estimated. The theoretical perspective in the form of concept of

the phenomenon of interest is mentioned upfront in the article. The research method used to study the phenomenon of interest was in the form of semi-structured interviews that were audio taped. The sampling procedure is not described well and the researcher was not able to relate that with the purpose of the study. The data collection process is not adequately described in terms researcher's role along with his or her assumptions and their relationships with research participants. The procedural rigor in terms of training of data gatherers, length of time for data gathering, and accuracy of data collection were poorly explained. The data analysis process was described in details and the emerging themes were quite reflective of the data. No mention was made about the 'audit' trail. Overall a meaningful picture emerged of the phenomenon under study which was 'condom use intentions'. There was no mention of how 'trustworthiness' of this study was established. It seemed that conclusions were appropriate for the study findings.

In a study which looked at sexual stigmatization and sexual behaviors among Vietnamese adolescents (Kaljee et al., 2007), the authors did a relevant literature review and identified gaps between past and current literature. The purpose or research statement was not mentioned explicitly. No mention is made of the qualitative research design used and hence the appropriateness of the design from researcher's worldview cannot be made. There is a mention of informed consent of the participants and training in ethical research but participant sampling is not clearly mentioned. Qualitative data collection was primarily by means of interviewing and focus groups were done as a part of pilot testing. The data collection process is described well consisting of interview conductance, data translation, site of interviews and duration of interviews. The procedural rigor was adequately mentioned but lacked in accuracy to some extent. The researchers have explained the data analysis process in detail such as data coding, themes, and patterns of

delineation. Trustworthiness of the qualitative data was reported by using a different source (survey data) for validation. Member checking was not done for validation purpose. Appropriate conclusions were drawn in the discussion section about stigmatization and sexual behaviors. In general, a meaningful picture emerged from this study about sexual attitudes and behaviors of Vietnamese adolescents in a changing political, economic and social environment.

### **Conclusions**

The HIV/AIDS epidemic continues to devastate the lives of persons in the United States and around the globe. Unlike some other scourges in the world, HIV/AIDS is preventable. The challenge for researchers and health care providers is in knowing how to transform knowledge about HIV prevention into accepted and expected public behavior. In summary, the primary assumptions of qualitative research are : a) allowing questions to emerge and change rather than starting with set of questions, b) seeing researcher as the research instrument, c) not seeing reality as fixed or unitary d) being inductive e) being exploratory which helps us study sexual behaviors among adolescents (Key, 1997) Without qualitative studies, we will be unable to determine whether questions presented among quantitative studies are in the right domain of HIV/AIDS study.

### **Recommendations for future research**

We need to conduct more qualitative studies that look into diverse sexuality views, HIV-related knowledge and beliefs, meaning of 'safer sex' so that interventions can address these issues. We, as researchers are extremely surprised and alarmed that there is a deficiency in literature conducted on this topic across the world. We encourage qualitative researchers across the world to conduct more studies among college students using a strong research methodological design.

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## Appendix A

Table 1. Qualitative studies related to safer sex among college students

Study	Research Design	Data collection/Analysis	Results	Conclusion
<p>1) Construction of sexuality, risk and relationship(Lear, 1996)</p> <p>2) Australian parents perception of sexuality education and communication(Berne, 2000)</p>	<p>Interactionist perspective</p> <p>Not mentioned</p>	<p>In-depth interviews/grounded theory method for coding the data.</p> <p>Focus groups/transcription of audio tapes for conceptual themes and patterns which were summarized in node reports under major headings</p>	<p>Sexual categories explored with respective normative influences on sexuality were: transmission information and safer sex, attitudes towards safer sex, approaching risk, construction of trust, and construction of risk.</p> <p>Sexuality was indicated as an important part of adolescent life by Australian parents. They strived to provide them with knowledge and skills to make informed choice. There was a strong support among parents for safer sex messages in school and media.</p>	<p>The construction of risk was balanced between knowledge about HIV and social climate that inconsistently supported safer sex practice. Risk management depended on type of anticipatory relationship, gender and sexual orientation.</p> <p>Parent education programs have served the schools well in creating support for sexuality education curriculum and services. Australian messages related to safer sex fall between abstinence messages in US and safer sex messages of European countries.</p>

Study	Research Design	Data collection/Analysis	Results	Conclusion
3) Sexuality education for college students (Haglund,2005)	Qualitative Descriptive study	Semi-structured interviews	Included in findings were descriptions of early adolescents' knowledge of sexuality, support of participants for sexuality education for early adolescents and recommendations for education content and preferred methods for education delivery	Parents, youth and professionals agreed for comprehensive sexuality education for school-age children. There is a need to develop research tools to assess sexuality knowledge of youths and to assess beliefs in sexual myths.
4) Social and cultural context for sexual health in Mongolia (Roberts, Oyun, Batnasan, & Laing, 2005).	Not mentioned	Focus groups. Thematic coding and theme diagram done for analysis.	The emerging themes from groups were embarrassment, lack of knowledge, concepts of normal and abnormal sex, perceptions of condoms, peer norms, and impact of alcohol consumption on sexual behavior	Major issues emerging out of this study among Mongolian adolescents are embarrassment when discussing sexual matters, lack of knowledge about sexual matters. Culture and value specific research is needed about sexual attitudes and behaviors

Study	Research Design	Data collection/Analysis	Results	Conclusion
<p>5) Sexual risk behavior in Cape Town. (Morojele, Brook, Millicent, &amp; Kachieng, 2006)</p>	<p>Not mentioned</p>	<p>Focus groups/themes and subthemes analyzed</p>	<p>Sexual risk behaviors were due to gender power differentials. Drug use exacerbated underlying vulnerability to risky behaviors.</p>	<p>HIV/AIDS interventions should target determinants of drug use and sexual risk behavior. Strategies for counteracting drug use need to be developed.</p>
<p>6) Reasoning and decision making in college students (Patel, Gutnik, Yoskowitz, O'Sullivan, &amp; Kauffman, 2006)</p>	<p>Not mentioned</p>	<p>Daily diary writing followed by in depth interviewing/grounded theory approach, top-down or bottom up approach for thematic analysis.</p>	<p>Four patterns of condom use behaviors were identified: consistent condom use (35%), inconsistent condom use (16.7%), consistent to inconsistent condom use (35%) and inconsistent to consistent condom use (13.3%). The first two patterns were due to data-driven heuristic reasoning while in the next two patterns explanation based reasoning and feelings of uncertainty were seen.</p>	<p>The techniques of diary data and narrative interview help us in understanding circumstances that lead to risky decision making. Exposure to faulty reasoning and the related consequences may lead to increased understanding of risk. Tailored health intervention programs can be very effective in behavioral change.</p>

Study	Research Design	Data collection/Analysis	Results	Conclusion
7) Intention to use condoms-safer sex program (Bauman, Karasz, & Hamilton, 2007).	Not mentioned	.In-depth semi-structured interviews focused on condom outcome and efficacy expectancies, condom use intentions and barriers to condom use. Thematic coding done and repeated several times.	Participants used condoms to avoid sexually transmitted diseases and pregnancy. Some of the barriers identified were not having a condom available, situational barriers, substance use, and compromised pleasure. Competing goals decreased intent to use condoms.	Barrier model doesn't account fully for failure to engage in safer sex. Exceptions to intentions to use condoms and competing intentions play an important role when it comes to engaging in safer sex behaviors.
8) Sexuality and stigmatization(Kaljee et al., 2007)	Quantitative(Survey) Qualitative-not mentioned	Interviews, survey instrument, focus groups Coding dictionary developed. Themes and patterns across respondents identified. Triangulation used	Qualitative data indicated a clear dichotomous view where "good" male – female relationships were non-sexual and "bad" male-female relationships were sexual.	There is a need for balance between reinforcing abstinence and youth's ability to engage in safer sex. Stigmatization of sex and perceived invulnerability lead to risky sexual behaviors.