GLOBAL PERSPECTIVES ON PEER SEX EDUCATION FOR COLLEGE STUDENTS

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ABSTRACT

According to the World Health Organization, sexually transmitted diseases and infections continue to be a public health problem across the globe, with most infected persons being between the ages of 15 and 49. A large percentage of those affected by AIDS are 15-24 year olds, an age group which includes college students. Peer sex education is being espoused by non-governmental organizations and administrators as a viable solution to this problem. Peer education strategies and approaches to evaluation differ across programs. Some programs report increased efficacy for educators and trainees while other programs report increases in knowledge and changes in attitudes. Perceptions of peer education and resulting benefits vary based on cultural perspectives. Developers of peer education programs need to critically deconstruct current models and customize programs for particular settings, as demonstrated in several programs. Further research is needed on the effects of peer education on the educator and cultural implications.

INTRODUCTION

Sexually transmitted diseases and infections (STIs) continue to be a public health problem across the globe (World Health Organization, 2006). Sexually transmitted diseases such as Human Immunodeficiency Virus (HIV) are among the top burdens of disease for many countries (Skolnik, 2008). The World Health Organization estimates that more than 340 million new cases of curable STIs occur annually worldwide with most infected persons being between the ages of 15 and 49 (World Health Organization, 2007). In many countries, peer education is emerging as an educational intervention used to encourage healthy sexual behaviors among the

population, particularly college students.

PURPOSE

The purpose of this essay is to review peer education for college students from a global and critical multicultural perspective. First, ramifications of STIs and the impact of the problem will be discussed, with implications for the use of peer education. This will include an examination of peer educator and trainee evaluations. Cultural difficulties of global peer education will be reviewed, with recommendations for global peer education.

RAMIFICATIONS OF THE PROBLEM

Two million deaths were attributed to HIV/AIDS in 2008 globally (AVERT, 2008). As of 2008, approximately 2.7 million people had recently acquired human immunodeficiency virus, with areas like sub-Saharan Africa impacted the most (UNAIDS &World Health Organization, 2009). Eastern Europe and Central Asia have experienced significant increases in HIV/AIDS rates in recent years due to the proliferation of sex workers (The World Bank, 2010). Due to the inability of patients to work or purchase medications, the pandemic is becoming evident in other parts of the world as well, resulting in a lower quality of life for those living with HIV/AIDS. The social life of some college exchange students can increase the spread of HIV/AIDS and other STIs as they travel to different countries (Tyden, Bergholm, Hallen, Odlind, Olsson & Sjoden, 1998).

Women across the world are disproportionally affected by HIV/AIDS and STIs (Skolnik, 2008). Women are more biologically susceptible to these diseases than men due to higher exposure of mucosal surfaces during sexual intercourse (Skolnik, 2008). In some male dominated communities, women may not feel comfortable asking the man to wear a condom (Skolnik, 2008). Women are also more vulnerable as sex workers, victims of rape, and in other situations where men may refuse to wear condoms. Health ramifications include infertility, experienced stigma in the community and even violence from their partners (Low, Broutet, Adu-Sarkodie, Barton, Hossain & Hawkes, 2006). This can also have an economic impact on communities, since untreated STIs like Chlamydia can cause cervical cancers, increased medical expenses, and disability for women (Low et al., 2006). Additionally, the presence of HIV/AIDS along with STIs can further weaken the immune system (Skolnik, 2008).

The international community has demonstrated interest in controlling STIs. In May 2006, the World Health Assembly endorsed a global strategy for the prevention and control of STIs. Some of the interventions for all countries were:

- Access to affordable condoms
- Prevention by promoting safer sexual behaviors
- Involvement of community and government stakeholders in prevention and care

(World Health Organization, 2007)

The United Nations Development Programme established interest in decreasing rates of sexually transmitted diseases and infections through the Millennium Development Goals; Millennium Development Goals (MDGs) were established by this group to attend to the world's most pertinent development challenges. Goals are to be met by 2015. Millennium Development Goal six is to reduce HIV/AIDS among 15-24 year olds, which includes college-aged students (United Nations Development Programme, n.d.). Goal three addresses empowerment and equality for women, which could include proper education for women regarding sexual health.

Impact of the problem on the college population

MDG goal six for 2015 is based on a report stating that 15-24 year olds account for a large percentage of new AIDS cases worldwide (UNAIDS & World Health Organization, 2009). Several factors may contribute to this situation: College students tend to engage in risk taking sexual behaviors, which increases the risk of STI spread (Zhang, Yongyi, Maddock & Shiyue, 2010). This time of risk taking can be described as extended adolescence due to their new experience of freedom from parental control (Miller, Mutungi, Facchini, Barasa, Ondieki & Warria, 2008). According to Ergene et al (2005), this extended adolescent phase may lead college students to find risky sexual practices more appealing (Ergene, Cok, Tumer & Unal, 2005). Therefore, multiple partners and high frequency of sexual activity, which contribute to the spread of STIs, are prominent in this age group (Jones, Patsdaughter, Jorda, Hamilton & Malow, 2008).

Globetrotting, which is often done by college-aged students, can lead to the rapid spread of STIs as well. For example, students may have sexual partners from both their academic year and vacation times (Tagoe & Aggor, 2009). Adding to the risk of STIs, college students may not feel that they are susceptible to STIs (Tyden et al., 1998). A lack of knowledge pertaining to sex education for college students and the aforementioned risk-taking behaviors can lead to poor sexual health, making peer education an appealing option for health education.

THE APPEAL OF PEER EDUCATION

Peer education is particularly appealing to administrators on college campuses as most health issues deal with lifestyle issues rather than chronic diseases (Sawyer & Pinciaro, 1997). Students may prefer discussing these sensitive issues with other peers and may be more influenced by them. Also, college students are particularly susceptible to both positive and negative peer pressure (Astin, 1993). In a study by Yan et al.(2010), a higher number of reported sexual behaviors

were found among students whose friends were cohabitating, particularly if their friends were close friends living with boyfriends (OR:9.67(6.96-13.44, $p<0.01$). The odds ratio for this variable was highest compared to other peer related variables, such as attitudes of close classmates towards sex, and close friends from middle school falling in love.

Peer education has become more appealing during recent years due to the changing dynamics of education and the influence of some non-governmental organizations. Peer education is promoted as empowering, beneficial and acceptable for students (Turner & Shephard, 1999). Cost savings is noted as a salient reason for peer education as well (Parkin & McKeganey, 2000; Millburn, 1995, Sawyer & Pinciaro, 1997). However, some sources indicate that college students may prefer an adult who is viewed as professional to serve as the educator (Li et al., 2009). Also, student turnover can make programs difficult to maintain (Lindsey, 1997).

What is Peer education?

Many definitions and terms of peer education exist. Some scholars define peer education as "teaching and sharing" of information by peers, while others define it as a formalization of everyday experience (Milburn, 1995; Trautmann, 1995). Delivery of peer education could be classified as formal and informal. Formal peer education may consist of the use of students as authoritarians from a social circle as a way to provide balance to the traditional educational structure. On the other hand, informal peer education does not attempt to recreate social positions but maintains normal social dynamics to facilitate education (Parkin & McKeganey, 2000). This may also be defined as peer support (Trautmann, 1995; Parkin & McKeganey, 2000). The concept of peer education is very important to college students as college is a time when many students are influenced by peers, both positively and negatively.

Peer Sex Education and Critical Multiculturalism

Sex education is appropriate as the literature indicates that many students do not have adequate knowledge of STIs or may not display it due to cultural norms (Zhang et al., 2010; Refaat, 2004; Price & Knibbs, 2009). The development of peer sex education programs vary. Some programs are developed by peer educators while others are designed by authority figures. It is thought that peer-developed and peer-led programming is more effective than programs designed by authority figures (Milburn, 1995; Peykari, Tehrani, Hashem, & Djalalinia, 2011; Ehrhardt, Krumboltz & Koopman, 2006). In a study by Wyatt & Oswalt, (2011), student organizations were invited to apply for HIV peer education mini grants. In order to receive funding, an organization representative was required to participate in a train the trainer program, led by a health educator. The student representative was then allowed to customize an HIV education program for their organization. An example of program success is that participants felt they could convince a partner

to use a condom during oral sex (t (150) = 2:18, p<.05) (Wyatt & Oswalt, 2011). Results indicate a student empowerment approach to program development can be efficacious. By allowing students to develop their own customized programming, programs were culturally relevant for specific audiences. This is important, as cultural norms vary between and among college students.

Differences in cultural norms illustrate the need for a critical multicultural approach to peer sex education. The purpose of critical multiculturalism is to deconstruct cultural norms and to decrease the effects of hegemony. Hegemony is used to describe the complex relationship between power and knowledge. It is defined as an unknowing consent to domination through media, education and other means of communication (Kincheloe & Steinberg, 2001). The pedagogy for critical multiculturalism consists of transforming and contesting the status quo, or hegemony, including cultural norms as it pertains to sexual relations. Cultural norms are demonstrated in the experiences of men and women across the globe. For example, it may be considered part of the normal personal balance (yin and yang) for men in Asia to engage in sexual practices, including those with sex workers (Liu & Chan, 2003). This could make it difficult for women to feel comfortable in negotiating sexual choices.

Pedagogy is defined in critical multiculturalism as a means of production of identity, or how someone sees themselves in the world (Kincheloe & Steinberg, 2001). Critical multicultural pedagogy in a sexual health education context may empower female students by providing information that allows them to make informed choices. This feeling of empowerment or liberation to make informed choices may produce a new identity for the individual as it pertains to self-efficacy. It is important to note that this may produce discord in communities where men are the decision makers in regards to sexual relations. However, this critical multicultural approach can serve as a basis for what culturally relevant peer sex education programs should look like.

Description of Peer Educators

Studies note that peer educators are often individuals who are well-adjusted socially, highly-motivated, enthusiastic, and have high status among their peers (Ebreo, Feist-Price, Youmasu & Zimmerman, 2002, Turner & Shepherd, 1999; Ergene et al., 2005). In several studies, peer educators reported increases in self-esteem and self-efficacy (Ochieng, 2003). For example, peer educators in Zimbabwe reported an increase in self-esteem and the ability to communicate with others about sexual issues. Program participants reported a reduction in the number of sexual partners (Terry, Masvaure & Gavin, 2005).

Other positive effects reported by peer educators are noted as responsibility, self-acceptance, awareness, and clarification of self-identify (Ochieng, 2003). Generally speaking, peer educators reported increased concern about the health of others, increased knowledge, awareness of their own health, and increased communication skills (St. Rose, Fuller & Jones, 2008; Murray, 2009). This discovery

and formation of self-identity is central to critical multicultural pedagogy.

Peer Education Techniques

Varied techniques are used for peer education. Programs may be implemented continuously through regular classrooms and in social clubs (Jodati et al., 2007). International peer education strategies include mentoring, discussion groups, and class teaching (Li et al., 2009; Tyden et al., 1998, Jahanfar, Lye & Rampal, 2009). In some contexts, theatre and other art forms such as role playing, are employed by peer educators (Turner & Shepherd, 1999; Miller et al., 2008, Peykari et al, 2011). Peer educators may also be involved in campus wellness days, health fairs and other types of awareness building campaigns (Lindsey, 1997). Culturally appropriate strategies, such as novellas (short stories) for Hispanic populations, have been employed as well (Jones et al., 2008). Programs implemented in some countries indicate that media should be used as an instructional tool, since that is a primary source of knowledge for college students (Refaat, 2004; Li et al., 2009).

Theoretical basis

The diversity of peer education techniques makes it difficult for researchers to attribute one theory to peer education. Although it is often thought that peer education is a method in search of a theory (Turner & Shephard, 1999), constructs from the social cognitive theory (SCT) can be used to explain some concepts of peer education (Turner & Shephard, 1999; Klein, Sondag & Drolet, 1994).

Social cognitive theory is based on the assumption that human behavior is a result of reciprocal determinism—a continuous interaction of individual behavior patterns, personal factors, and environmental factors that act as equal determinants of behavior (McKenzie, Neiger, & Thackeray, 2009; Bandura, 1986). Personal factors include biological and cognitive determinants. Health programs should address all three levels of reciprocal determinism in order to be effective.

The most important construct of SCT as it pertains to sex education is self-efficacy. All other constructs, including reciprocal determinism, are based on the fact that one thinks they can perform a behavior (Bandura, 2002). Self-efficacy is the ability to model a behavior independently and demonstrate competency in a desired behavior. Perceived efficacy influences thought processes associated with that behavior (Bandura, 2000). Individuals often become self-efficacious through mastery of a task, vicarious experience, and verbal persuasion (Bandura, 1986). In order for a person to become self-efficacious, he or she must be capable of coping with emotions that may arise from attempting the desired behavior, such as fear and anxiety (McKenzie, Neiger & Thackeray, 2009). In peer sex education, anxiety may be elevated among female peer sex education participants who do not feel empowered to discuss condom use with their partner.

Perceived collective efficacy is an important aspect as well. Perceived collective efficacy is defined as the dynamics of how a group functions in regard to a specific behavior (Bandura, 2002). Group judgment of an activity, such as con-

dom use, can provide a measurement of collective efficacy. Perceived self efficacy affects the dynamics of collective efficacy. If a group member decides that they can perform a specific behavior, it may reflect the efficacy of the entire group. Collective efficacy should be examined within a cultural context, as some cultures view learning from a collective perspective and not individually (Bandura, 2002). The consideration of collective efficacy is needed to address global health issues such as STIs in the context of peer education.

Peer education programs often utilize several constructs of social cognitive theory, such as modeling and self-efficacy. College students often learn sex behaviors from peers as modeling occurs on a regular basis. Peer educators are given specific training in order to influence peers through example. Constructs of social cognitive theory are often used as evaluation measures for peer education.

Measures for Peer Education

Most studies do not measure the effects of peer educator recruitment strategies on program outcomes (Medley et al, 2009). Evaluative measures for peer education are diverse, but most studies utilize increases in knowledge, trainee satisfaction, peer educator satisfaction and attitudes as measures of effectiveness. Process evaluations usually include number of students in attendance and number of sessions (Sawyer & Pinciaro, 1997).

Summative evaluations employ both qualitative and quantitative methods. Qualitative methods employ techniques such as the keeping of a diary by peer educators to record responses of participants, including difficulties encountered while sharing information (Parkin & McKeganey, 2000). They may also include open-ended questions on surveys and discussion groups (Li et al., 2009; Parkin & McKeganey, 2000). Affective gains (change in emotion and attitudes) along with social gains (participant and peer leader perceptions) may be measured as well (Ochieng, 2003).Quantitative methods include questionnaires, with many designs involving pre- and post-tests. Standardized knowledge tests and tools such as the AIDS attitudes questionnaire, safe sex behavior questionnaire, and the personal development inventory for perceptions of peer educators and knowledge questionnaire are used (Ergene et al., 2005, Sawyer & Pinciaro, 1997).

Increases in knowledge and changes in attitudes are reported for programs (Jahanfar, Lye, & Rampal, 2009, Jones et al., 2008). Several studies indicate an increase in knowledge at the end of peer education programs, as demonstrated in a controlled Turkish study at 6 months (control group: M= 9.79 (2.75), intervention group: M=13.7(12.34), p=.000.) (Bulduk & Erdogan, 2012). Peers as educators seem to produce higher rates of attitudinal changes due to discussions in their social circles (Ergene et al., 2005). However, there is a note of caution to peer education coordinators: Instructors for these programs should be careful to evaluate knowledge of peer educators before placing them in the field, as the educators' level of knowledge will affect the quality of education offered (Lindsey, 1997). Overall, changes in knowledge and attitudes are easier to measure rather than

behaviors (Parkin & McKeganey, 2000).

Self-efficacy in condom use is measured in some programs, as noted in programs developed for Hispanic college students in the United States and in Kenya (Jones et al., 2008; Miller et al., 2008). Both programs featured the ABC's of safe sex practices (abstinence, being faithful, and condom use). In the study by Jones et al. (2008), Hispanic peer educators were nursing students who provided a one-session, three-hour program to the student body at large. Peer educators were trained on condom selection, application and removal so that they could train other students. Preliminary evaluation results utilizing a pre-post test design at the end of eight weeks indicated an increase in condom application and management skills ($t=-6.417$, $p=.001$) (Jones et al., 2008). In an outcome assessment of a program in Kenya, a quasi-experimental research design was selected due to a sense of moral obligation to provide education to all students (Miller et al., 2008). A pre-post test design was utilized for the evaluation. Post test study results indicated an increase in numbers of students reporting condom use, specifically those who had intercourse in the previous month ($t\ (614) = 2.46$, $p<.05$) (Miller et al, 2008).

It is important to note that global peer sex education programs may reveal dissonance between knowledge gained and biological outcomes. In a meta-analysis on the effectiveness of peer education in developing countries from 1990 to 2006, Medley et al. (2009) found that students of peer education demonstrated a significant increase in HIV knowledge and condom use compared to other students (OR:2.28; 95% confidence interval; OR:1.92; 95% confidence interval). However, programs did not demonstrate a significant effect in the incidence or prevalence of sexually transmitted infections. In fact, several studies within the meta analysis reported increases in STIs after peer education (Medley et al., 2009). Peer education for this study was defined as "the sharing of HIV/AIDS information in small groups or one-to-one by a peer matched to the target population" (Medley et al., 2009). By reviewing evaluation results, such as difficulties encountered and information learned, evaluation can be used to develop pedagogy from a critical multicultural perspective.

CULTURAL DIFFICULTIES WITH PEER EDUCATION

College students perceive their peer educational experiences through culture. Many global peer education programs are based on United States models. This may be due to the influence of non-governmental organizations' visions of society and civility in international settings, as evidenced by USAID international programs (USAID, 2007).

The need for a critical multicultural approach in creating sexual health programs is evident across the globe. Topics such as the placement of power in societies, perceptions of democracy, the influence of religion, and perceptions of peer educator experience demonstrate the need for this approach. For example,

peer education can be problematic culturally for countries with a more authoritarian educational model, such as some African countries. Peer educators may carry the same authoritarian attitude which conflicts with the purpose of peer education. Students do not accept this attitude from someone designated as a peer educator and may resist the educational opportunity (Pattman & Cockerill, 2007).

Places of power within that society determine the level of participation for the program. Power relations of gender and poverty should be regarded, as well-meaning programs could actually reinforce gender inequality depending on how they are implemented (Knibbs & Price, 2009; Kincheloe & Steinberg, 2001). It is noted in several programs that women are shy about discussing sexual experiences, based on cultural norms (Tagoe, 2009; Knibbs & Price, 2009; Bulduk & Erdogen, 2012). According to a study in Korea, male teens are more likely to use condoms, if they think it is a peer norm ($r=0.21$, $p<.01$) (Cha, Kim & Patrick., 2008). There is a need for negotiation between partners to be discussed during peer education programs, not simply directions on how to use a condom (Knibbs & Price, 2009).

Another example of the effects of power placement within a society is demonstrated in a NGO peer education program in Cambodia (Knibbs & Price, 2009). The program attempts to empower youth, which is in contradiction to social structure and historical context. Young people have been thrust into leadership roles due to war and traumatic disruption. As a result, young people long for authority figures, rather than desiring leadership roles. In this case, peer education could potentially be viewed as a method of social control, as authority figures seem to select peer educators who modeled desired behaviors (Knibbs & Price, 2009).

The emphasis on democracy in peer education is not necessarily congruent with the political environment or beliefs of many countries engaging in peer education (Price & Knibbs, 2009, Pattman & Cockerill, 2007). It may be inconsistent with power relationships (Knibbs & Price, 2009). In these cultures, peer education outcomes may be influenced by the developers if students feel they should provide a "right" answer (Parkin & McKeganey, 2000). Also, some program leaders may not allow peer educators to develop the curriculum. This could be viewed by peer educators as a way to control their norms and values (Price & Knibbs, 2009; Knibbs & Price, 2009).

Religion is an important reflection of values in programs, as demonstrated in those implemented in Malaysia and Kenya. Peer educators emphasized abstinence, while presenting information on condom use (Jahanfar, Lye & Rampal, 2009; Miller et al., 2008; Price & Knibbs, 2009). Social norms should be regarded as well. According to Jahanfar et al. (2009), social norms in Malaysia require abstinence until marriage. However, the media sends contrary messages to youth, which may leave them susceptible to experimentation as college students

Programs were tailored to meet the cultural needs of the community, with abstinence being situated as the best choice (Jahanfar, Lye & Rampal, 2009). Levels of knowledge and attitudes at post-test were significantly higher for the interven-

tion group than for the control group at p=.000.

Lastly, cultural differences may exist with perceptions of knowledge gained as a peer educator. For example, peer educators in China noted a gain of more factual knowledge than personal development, in contrast to peer educators from Western programs (Li et al., 2009). They also felt that team building activities should be added to peer educator trainings. This may be a result of a stronger view of community and possibly collective efficacy compared to some United States norms. Participants in peer education programs may also have different views of the peer educators. In the aforementioned peer education program in China, students did not view the peer educators as knowledgeable, which may be due to cultural norms of referring to authority figures for information (Li et al., 2009). Personal conflicts may arise due to this attempt to change social norms. In this age of autonomy, students may have a conflict between what is being presented by peer educators and what they feel is the appropriate behavior (Miller et al., 2008). In a study by Li et al., (2009) some students did not feel the peer educators were necessary and preferred talking to professionals.

In most situations, peer educators seem to possess values similar to program participants, contributing to the success of many programs (Brack et al., 2008). A similar cultural background is of particular importance. It is also important to note that, while some studies mention that peer educator expertise is the most important factor of success for programs, this seems to be primarily anecdotal information (Sawyer & Pinciaro, 1997). In a Cambodian case study, peer educators were ridiculed by their own community with accusations of knowing too much about sex (Knibbs & Price, 2009). In addition, the family approach to life is not apparent in many U.S. based peer training models. In China, peer educators reported that the isolation surrounding the peer educator training did not fit the culture of their local area (Li et al., 2009). Peer educators wanted more team building activities among themselves.

In summary, the deconstruction of cultural norms and production of identity by peer educators, versus global organizations, can product culturally relevant peer sex education programs. Without this approach, programs may have undesired outcomes. Program modalities offered as global models, such as peer education, may lead to unexpected identity conflicts for both peer educators and students. For example, students in one peer education program in Africa were not sure as to why they were chosen as peer educators (Pattman & Cockerall, 2007). In China, students were not comfortable with being placed above their peers as educators (Li et al., 2009). In other words, culturally relevant education can respect collectivism and power relationships found in specific cultures. The production of identity by educators can aid with cultural relevance and acceptance of programs by both the educator and the trainees.

CONCLUSIONS

Sexually transmitted infections pose a serious health threat to college students. Large numbers of college students are affected by STIs which can cause long term health consequences. Peer education is used as a strategy to alleviate this problem. Overall, evaluated programs appear to increase knowledge and provide empowering opportunities for peer educators. However, some principles from Westernized programs should be customized before they are implemented in dissimilar countries. Although peer education is being adopted as a model in increasing numbers, careful attention is needed to examine the contextual nature of peer education for sexual health. Peer education should be developed, implemented, and evaluated within a cultural context from a critical multicultural lens.

RECOMMENDATIONS

Recommendations for global peer sex education programs can be made in several areas. First, further research should be conducted on the efficacy of peer sex education programs in different cultures and settings, including comparative evaluations and research on peer educator outcomes. As noted in this essay, international studies report varied outcomes with initial peer education programs. Evaluation designs should include knowledge, attitude, behavioral and biological outcomes (Medley et al., 2009). Evaluations should be customized and rigorously developed for programs, including randomized designs.

In terms of student involvement, students should be participants in recruitment and program development as much as possible (Ergene et al., 2005, Jones et al., 2008, Wyatt & Oswalt, 2011). Self-nomination of peer educators seems to have a significant influence on HIV knowledge in developing countries (Medley et al., 2009). Program development should include an examination of social norms by community stakeholders and peer educators. Effective programs should also consider building on current communications channels, which may include elders (Knibbs & Price, 2009, Li at al., 2009). Global communities will need to inform one another as this popular form of education evolves. In our global environment, it is important for educators to partner with others and learn more about what does and does not work in peer education for college students, both domestically and internationally.

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