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Suzanne M. Heitfeld

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Date

Changes in knowledge, communication, and risk-taking behaviors among college students  
delivering a theater-based sexual health intervention:  
A qualitative study of the *AMP!* Sex Squad

By

Suzanne Heitfeld  
Master of Public Health  
Behavioral Science and Health Education

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Dr. Dawn Comeau  
Thesis Chair

---

Robert Gordon  
Committee Member

---

Dr. Richard M. Levinson  
Department Chair

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By

Suzanne Heitfeld  
Bachelor of Science  
University of Minnesota-Twin Cities, 2012

Thesis Chair: Dawn Comean, PhD, MPH  
Thesis Committee: Robert Gordon, MA

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2014

## Abstract

Changes in knowledge, communication, and risk-taking behaviors among college students delivering a theater-based sexual health intervention:  
A qualitative study of the *AMP! Sex Squad*

By Suzanne Heitfeld

Individuals between the ages of 18 and 24 are at an increased risk of acquiring HIV and other sexually transmitted infections. This age group accounts for a disproportionate number of HIV infections annually, compared to individuals of other ages. Arts-based interventions have been shown to be effective in delivering health messages and promoting behavior change among audience members. The AMP! Sex Squad is a peer-based arts intervention that is developed and delivered by college students to inform high school students about topics ranging from contraception, to HIV/AIDS, to relationship violence. This study was interested in understanding the impact of participation as a performer in the Sex Squad on sexual health knowledge, communication and risk-taking behavior. Eight in-depth qualitative interviews were conducted with current and previous Sex Squad participants. Respondents described an increase in their self-efficacy for discussing topics related to sexual health, which resulted from increased knowledge gained from participation in the Sex Squad, their exposure to alternate perspectives around gender and sexuality, and the opportunity to practice and observe their peers in a creative setting. Performance was an important component of the intervention that was cited by respondents as helping to build their confidence and empowering them to share and apply the knowledge and skills they gained in the Sex Squad in their relationships with their social networks. This qualitative study suggests that peer-based arts interventions have an impact on the sexual health knowledge, communication and risk-taking behavior, and they may be an important opportunity for intervention to alleviate the disproportionate burden of HIV/AIDS among 18 to 24 year olds.

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## Introduction

### **HIV and Youth in the United States**

In the United States, 1,148,200 people over the age of 13 are infected with HIV, and there is an estimated incidence of about 50,000 new cases of HIV infection per year (The Centers for Disease Control, 2010). The southern region of the United States reported 45% of the new AIDS diagnoses in 2010, and 40% of people living with AIDS in the United States lived in this region of the country (The Centers for Disease Control, 2012). In 2010, 21% of the United States population was comprised of youth between the ages of 15 and 29, and youth between the ages of 13 and 29 accounted for 39% of new HIV infections in the United States (The Center for Disease Control, 2011). Of this group, 75% of the diagnoses of HIV were in individuals between the ages of 20 and 24, at a rate of 36.9 new HIV diagnoses per 100,000 individuals (The Center for Disease Control, 2011). Young people between the ages of 20 and 24 have the highest rate of HIV infection of any age group in the country (The Center for Disease Control, 2011).

In California, Los Angeles County accounted for 59,995 AIDS cases and 17,991 HIV infections in 2012 (California Department of Public Health, 2012). In 2012 in the state of California, youth between the ages of 13 and 29 accounted for 40,396, or 19.3%, of HIV/AIDS cases (California Department of Public Health, 2012). According to the Georgia Department of Public Health, as of 2009, the state of Georgia was ranked sixth in the nation for the cumulative number of AIDS cases (Georgia Department of Public Health, 2012). In 2010, youth between the ages of 13 and 29 accounted for 762 of the 2,037 (37.4%) newly diagnosed HIV/AIDS cases in Georgia (Georgia Department of Public Health, 2012). Finally, in North Carolina, 48% of new HIV infections occurred in youth between the ages of 13 and 29, compared to the national incidence in that age group of 39% for 2009 (North Carolina Communicable Disease Unit, 2011).



### **Arts-based Health Interventions**

Given the startling incidence and prevalence of HIV/AIDS among youth between the ages of 13 and 29, it is important that intervention strategies are developed with a basis in theoretical frameworks, and that they are evaluated rigorously so that evidence-based interventions can be put forth for use in communities. Internationally, there has been an increase in performing arts-based interventions to educate youth about a wide variety of health topics (Glik, Nowak, Valenta, Sapsis, & Martin, 2002). Many of these interventions lack theoretical underpinnings and do not have evaluation components. However, that does not mean that they are not valuable mechanisms to spread public health messages. There are opportunities for health education both for the audiences that consume the messages through theater performances, as well as for those individuals who are actually performing and delivering the health education messages. Thus, evaluation must take place on two levels. Health outcomes must be measured for the audiences who are consuming health education messages to determine the effectiveness of the performing arts as a medium for intervention. It is also important to consider the potential health outcomes of those individuals who are performing and delivering the health education messages. There has not been extensive research in this area. This is an alternative and unique method of accessing and educating the young adult population, specifically those attending college.

This study will utilize data obtained from the college students participating in the interactive theater program AMP! (arts-based multiple-intervention peer-education). AMP! was founded in 2011 at the University of California-Los Angeles Art and Global Health Center, and it expanded to Atlanta and Chapel Hill in the fall of 2012. The AMP! Sex Squad, or Sex-Ed Squad in Atlanta and North Carolina, is a theater intervention that educates high school youth about HIV transmission, prevention, and other sexual health issues. College students develop and perform a series of multi-media performance pieces based on their own experiences and/or questions about sexual health. These pieces cover issues ranging from healthy

relationships to getting tested for HIV and other sexually transmitted infections (STIs). The intervention is taking place in Los Angeles, California, Atlanta, Georgia, and Chapel Hill, North Carolina, which makes it important to consider the risk of HIV of youth in all three of these locations.

Evidence based and non-evidence based HIV prevention interventions are widely utilized in public health arenas across the globe. Internationally, theater and performing arts have been utilized to disseminate health education messages about HIV transmission, risk behaviors, and prevention strategies. The majority of the knowledge and evaluation of the communication of health education messages using live theater comes out of developing countries, and there is minimal evidence suggesting that youth performing arts interventions are an effective means of communicating health messages in developing countries (Glik et al., 2002). There is a need to evaluate performing arts based health communication interventions in the developing world, and it will be important to ground this research in theory.

### **Social Cognitive Theory as a Theoretical Framework**

Social cognitive theory provides a framework to contextualize HIV prevention interventions. According to McAlister, Perry & Parcel (2008), social cognitive theory can be divided into five categories: (1) psychological determinants of behavior, (2) observational learning, (3) environmental determinants of behavior, (4) self-regulation, and (5) moral disengagement. For the purposes of this study, the constructs of particular relevance are:

**Table 1. Social Cognitive Theory Constructs.** *The five constructs from Social Cognitive Theory outlined in the table below were identified and used to guide the analysis of the qualitative interviews conducted for this study. (McAlister, Perry & Parcel, 2008).*

<b>Construct</b>	<b>Theoretical Definitions</b>
Reciprocal Determinism	Environmental factors that support behavior change
Outcome Expectations	Individuals weigh the likelihood of various outcomes that might result from a particular behavior
Self-efficacy	Individuals feel the capacity to perform particular behaviors
Observational Learning	Individuals learn to perform behaviors as a result of media or peer modeling
Self-regulation	Development of concrete skills to be able to regulate behavior

In the case of an interactive theater based intervention such as AMP!, behavioral theory is particularly important for evaluating the impact of the program in a thorough, scientific manner.

### **Study Purpose and Aims**

The purpose of this study is to evaluate the role of peer educators, in the context of an interactive theater based intervention. This study hopes to explore the impact of participation in theater-based sexual health intervention on college students' knowledge and communication about sexual health and sexual risk taking behavior. This study aims to answer three research questions:

- (1) How does participating as a peer educator in an interactive, theater-based intervention such as AMP! impact sexual health knowledge?
- (2) How does participating as a peer educator in an interactive, theater-based intervention such as AMP! impact sexual health communication?
- (3) How does participating as a peer educator in an interactive, theater-based intervention such as AMP! impact sexual risk taking behavior?

## **Literature Review**

### **Sexual Health and College Students**

Topics of sexual health are particularly relevant for young adults between the ages of 18 and 25. Studies assessing knowledge, attitudes, and sexual risk taking with this age group are often conducted in a college setting. This section seeks to demonstrate the need for sexual health interventions that focus on this demographic, which has demonstrated gaps in sexual health knowledge and practices high-risk behaviors.

A study by Opt & Loffredo (2004) found that college students have knowledge regarding HIV transmission and methods of protection, but their perception of their personal risk of becoming infected with HIV is low, so they do not take the appropriate precautions to

protect themselves against infection. This population also engages in behaviors that increase their risk for being exposed to HIV and other STIs and then transmitting infections to sexual partners (Rhodes et al., 2006). College students are not educated about how HIV impacts their age group; therefore, they do not take precautions in their sexual decision-making (Opt, & Loffredo, 2004). However, gender, race/ethnicity, and knowing someone with HIV were predictors of students' personal concern regarding becoming infected with HIV (Opt & Loffredo, 2004).

Social and peer norms are important factors influencing sexual behavior among college students. Students have an exaggerated perception of the risky behaviors that their peers are engaging in, which results in increased rates of unprotected sexual intercourse (Hittner & Kennington, 2008). Consistent condom use is a challenge for college students, and even when condoms are used, there are high rates of use error and/or misuse (Rhodes et al., 2006). Pregnancy prevention was a positive predictor for condom use, and this was viewed as more important than HIV or STI protection (O'Sullivan, Udell, Montrose, Antoniella, & Hoffman, 2010). This suggests that there is a disconnect between the knowledge that condoms can prevent infection and actually using condoms when engaging in sexual behaviors (O'Sullivan et al., 2010). Positive norms and attitudes towards safer sex and greater intention to practice safer sex are associated with the use of condoms (Walcott, Chenneville, & Tarquini, 2011). Consistent condom use was also predicted by sexual health education that emphasized condom negotiation skills and how to navigate peer pressure (Walcott et al., 2011).

A study by Buhi, Marhefka & Hoban (2010) found vast sexual health disparities between Black and white college students. Black males and females had the highest rates of new HIV infections and other STIs (Buhi et al., 2010). Black students had more sex partners compared to their white counterparts; however, Black students reported more consistent condom use and were more likely to get tested for HIV (Buhi et al., 2010).

### **Entertainment-Education as a Rationale for Arts-Based Health Interventions**

“Art reflects the mission of a community” and enables communication across age, race, religion, culture, and the experience of illness and disease (Parker et al., 2013). Narrative stories with a prevention focus have been used to promote behavior change (Petraglia, 2007). This has been termed entertainment-education, where educational messages have been intentionally incorporated into entertainment mediums to try to change the behavior of audience members (Singhal & Rogers, 1999). Former and current perceptions get weaved into coherent narratives that promote behavior change through the interplay of stories, thoughts, and actions (Petraglia, 2007). Narratives “create cognitive and affective associations that influence ‘psychosocial variables’ such as self-efficacy, outcome expectations, and risk perception,” which help facilitate behavior change of an audience (Petraglia, 2007).

Challenges with entertainment-education arise around the use of behavioral theory and evaluation methods. Petraglia (2007) points out the necessity of integrating behavioral theory into performance scripts and narrative stories that are being used for behavior change communication. The authors argue that two common behavioral theories that guide behavior change communication are social cognitive theory and the trans-theoretical model. Specifically, theater based health interventions draw on the Social Cognitive Theory (SCT) constructs of outcome expectations and self-efficacy. The progression to behavior change can be supported by self-efficacy when individuals do not always move linearly through the stages of change (Petraglia, Galavotti, Harford, Pappas-DeLuca & Mooki, 2007). While performance based health interventions incorporate pieces of behavioral theory, neither of the frameworks discussed above explicitly guide the creation and presentation of content to audiences. This provides a unique opportunity to begin to conceptualize existing theater-based health interventions in terms of behavioral theory and to develop a framework for the evaluation of changes in knowledge, attitudes, and behavior of both the audience and performers.

Theater creates an opportunity of “experiential involvement” (Johnson, Harrison & Quick, 2013). Audiences are transported to the setting and context of a story, and they are able to identify with the characters. When using theater as tool for behavioral change interventions, it is important that the messages are relevant to the audience, because that will impact how those messages are processed and recalled (Johnson et al., 2013). Glik et. al. (2002) conceptualize this as “functional learning” that can be applied to the audience members’ lives, because it explains, demonstrates, and compares the consequences of different life choices.

### **Theater-based Behavioral Interventions**

The large majority of the literature that evaluates entertainment-education has been completed in international settings, and it primarily focuses on the impact of these interventions on audiences receiving the health education messages (Glik et al., 2002). The literature fails to evaluate the impact on the individuals who were performing and delivering the interventions (Glik et al., 2002). There has been a call for theater interventions that are based in theory, and for the evaluation of the entire drama intervention process, and not just an evaluation of the outcomes for audiences (Joronen, Rankin, & Astedt-Kurki, 2008). This section of the literature review will summarize research conducted on the evaluation of performing arts and theater-based health education interventions, both internationally and domestically. It will identify key constructs of SCT that are indicators of a successful intervention, and it will acknowledge gaps in evaluation. Both performing arts interventions and health education interventions designed around the SCT framework are crucial to informing the state of evaluation of HIV/AIDS health education interventions.

### ***Theater-Based Interventions and Social Cognitive Theory***

Studies by Perry et al. (1999) and by Perry, Zauner, Oakes, Taylor, & Bishop (2002) utilized SCT as a framework for the delivery of two theater based interventions in the Twin Cities metropolitan area of Minnesota. The first study evaluated a theater program that

promoted non-smoking on psychosocial risk factors for students in grades 1-3 and in grades 4-6. After viewing the theater performance, students indicated that they had a lower inclination to smoke in the future when compared to their predisposition before seeing the play (Perry et al., 1999). The second study evaluated a theater production focused on nutrition in elementary schools. It evaluated students' food choice, knowledge, and food recall before and after seeing the performance. This intervention resulted in students having an increase in knowledge and a positive impact on food choices being made (Perry et al., 2002). A limitation of these findings regarding the effectiveness of theater-based interventions was that there was no evaluation of the long term impact of the messages audiences received during performances (Perry et al., 1999; Perry et al., 2002).

### ***Theater-based HIV Interventions***

While neither of the above interventions look at health behaviors relating to HIV/AIDS, it is important to note that they utilize a theoretical framework for evaluation that provides a sound rationale for their conclusions regarding the impact of theater based interventions on audiences. At the same time, there is a body of literature that indicates the success of theater-based interventions that do not utilize a theoretical framework. A six-week HIV prevention performance arts-based education workshop that culminated in a theater performance was implemented for youth between the ages of 13 and 16 in the neighborhood of Newham in London, England (Campbell, Bath, Bradbear, Cottle, & Parrett, 2009). This intervention was not based on a theoretical framework and it had a relatively low sample size, which means that the findings should be interpreted with a critical eye. However, qualitative interviews determined that the audience had an increase in knowledge about both HIV and condom use (Campbell et al., 2009). Quantitative analysis of pre- and post- intervention data showed an increase in self-efficacy for condom use, and it demonstrated that participants had a stronger inclination to plan to use a condom at their next sexual encounter (Campbell et al., 2009).

Another study conducted in Nottinghamshire, England evaluated the impact of a thirty minute play followed by an interactive workshop on HIV knowledge and attitudes on 13 and 14 year old youth in 12 secondary schools (Denman, Pearson, Moody, Davis, & Madeley, 1995). The study utilized qualitative and quantitative methods to evaluate changes in the participants' knowledge and attitudes regarding HIV pre- and post- intervention. The authors found that the intervention helped to clarify both misconceptions regarding risk for HIV and attitudes regarding the rights of children who are HIV-positive (Denman et al., 1995).

Finally, a theater group in Ghana developed a performance about HIV/AIDS that was delivered to young adults in poor urban and rural communities. Evaluation of the intervention consisted of focus groups held immediately after performances. The study found an increased feeling of empowerment among audience members, and a greater confidence in discussing the contextual barriers of HIV prevention, in the communities in which the show was performed (Boneh & Jaganath, 2011).

### **Utilizing Peer Education for HIV Interventions**

A systematic review and meta-analysis of the literature by Medley, Kennedy, O'Reilly & Sweat (2009) regarding HIV peer education interventions found that these interventions were "moderately effective for behavioral outcomes but no impact for biological outcomes." The meta-analysis evaluated 30 studies published between January 1990 and November 2006. Peer educators have demographics and risk behaviors that are parallel to the target group of interest, which results in increased levels of trust with their peers (Medley et al., 2009). This is beneficial in the delivery of knowledge, awareness raising, and encouragement of behavior change among similar group members. This meta-analysis found that increased HIV knowledge (OR=2.28) and increased condom use (OR=1.92) were significantly associated with peer education interventions (Medley et al., 2009).



Behavioral change is impacted by the modeling of HIV prevention behaviors, increasing knowledge about HIV transmission, and increasing clarity of messages delivered by peers (Joronen et al., 2008). A study by Haignere, Freudenberg, Silver, Maslanka & Kelley (1997) conducted in Brooklyn, New York found that adolescents showed increases in knowledge and self-efficacy after participating in an HIV intervention as peer educators. This intervention consisted of 18 peer-education training sessions that focused on human sexuality, decision-making skills, and the relationships between HIV and other risk behaviors such as substance abuse. The peer educators' knowledge, attitudes, and behaviors were only evaluated post-intervention, and there was no comparison group, which suggests a threat to internal validity of the study (Haignere et al, 1997).

A more recent study conducted in Putra, Malaysia used a randomized control trial design to assess differences in knowledge, attitudes, and behavior of peer educators at baseline, immediately post-intervention, and at 3-month follow up (Ibrahim, Rampal, Jamil & Zain, 2012). The intervention group showed improvements in their HIV related knowledge, their attitudes towards HIV, and the substance related risk behaviors in which they engaged (Ibrahim et al., 2012). The authors suggest that a longer follow-up period may be necessary in order to evaluate behavior change and "assess the sustainability of the intervention" (Ibrahim et al., 2012). Based on the literature, there is evidence to suggest that using peer educators to deliver health education messages is effective.

### ***Opinion Leaders and the Diffusion of Innovations***

An inherent quality of theater and performing arts is that individuals get up in front of an audience and perform some sort of show. Health interventions that are based in theater and performing arts utilize these performers to communicate health education messages. Within these health education messages, performers have the opportunity to communicate their own personal questions, doubts, and concerns. The performances offer a space for performers to

challenge messages about health that they have received over their lives. The construct of observational learning in social cognitive theory closely mirrors, but is not identical to, the concept of opinion leadership put forth by the theory of the Diffusion of Innovations (DOI). According to the theoretical framework of the DOI, performers function as opinion leaders, or those individuals who shape behavioral norms by influencing others (Rogers, 1983). Peer education does not necessarily go hand in hand with opinion leadership, since they do not always have similar demographics or engage in the same risk behaviors (Medley et al., 2009). According to the constructs of DOI, opinion leaders hold beliefs, opinions, and attitudes that influence their peers due to their social standing and credibility (Kelly, 2004; Turner & Shepherd, 1999). The importance of opinion leaders in the diffusion of health interventions regarding HIV has been widely noted. Therefore, the identification of opinion leaders in a population is crucial in generating and maintaining behavior change in a target population (Bertrand, 2004; J. Kelly, 2004; Rogers, 2002; Turner & Shepherd, 1999).

### ***Observational Learning and Social Cognitive Theory***

Social cognitive theory refers to the transfer of information and modeling of behaviors as observational learning (McAlister et al., 2008). The Social Cognitive Theory (SCT) construct of observational learning is helpful when thinking about interventions for HIV education and risk behavior reduction. Peer norms influence the adoption of changes in behavior that have implications for the reduction of HIV risk behaviors (Kelly et al., 1991). The concept of opinion leaders from DOI draws on individuals who are respected in a certain community, and that respect lends authority to the health messages they are delivering (Rogers, 2004). Peer educators are a subset of opinion leaders who possess demographic characteristics and risk behaviors that are parallel to the population to which they are delivering health messages. This results in increased trust and positive rapport (Medley et al., 2009). A study in the United States trained popular opinion leaders in the gay community in Louisiana and Mississippi to

speak about topics relating to HIV risk and sexual risk behaviors. Post intervention, the number of men who engaged in unprotected anal sex dropped from 36.9% to 27.5% (Kelly et al., 1991). In another example, peer education networks were evaluated at three sites in Ghana. The authors found that peer educators seem to be most successful in reaching individuals like themselves, and that the effectiveness of modeling behavior depends on similarity of demographic characteristics between role models and target populations (Wolf & Bond, 2002). Finally, a study out of Britain evaluated the effectiveness of opinion leaders in disseminating HIV education among gay men at gyms in central London. Upon evaluation, the authors determined that the utilization of opinion leaders at gyms was not a successful means of disseminating HIV knowledge (Elford, Sherr, Bolding, Serle, & Maguire, 2002). However, they did begin to explore the experiences of peer educators in terms of challenges faced by the opinion leaders and barriers to education around HIV using opinion leaders. The authors took the importance of these experiences into account when thinking about utilizing opinion leaders for the successful dissemination of HIV education interventions.

In a study by Kafewo (2008), Nigerian students at a girls' high school in Zaire, Nigeria were involved in the development and performance of short plays about issues of sexual health based on personal or real life stories. This intervention came out of the theater department at Ahmadu Bello University in Nigeria, so there was no formal evaluation of either the girls who developed and performed the plays or of their peers who viewed the performances. However, the study was included in this review because it begins to explore the impact that a performing arts-based intervention can have on the individuals who are performing. The author states that knowledge surrounding issues of sexuality increased, and the girls gained confidence in discussing matters of a sexual nature (Kafewo, 2008). When beginning to conceptualize the evaluation of peer delivered theater-based intervention on the performers, it is crucial to

remember that participation as a performer may be beneficial not only for the target audience, but also for the performer's health knowledge and behavior.

### **Exploring Outcomes for Peer Educators in Theater-based HIV Interventions**

Currently, there is limited evaluation of individuals who are delivering performing arts-based health education interventions. There is evidence to suggest that peer-education interventions are beneficial to peer educators as well as their target audiences (Medley et al., 2009; Strange, Forrest, Oakley & The RIPPLE Study Team, 2002). Interventions based in peer education create a sense of solidarity and collective activism among the target audience and the educators (Medley et al., 2009). A randomized control trial of students in English secondary schools found that peer educators reported increased sexual health knowledge, more liberal attitudes regarding sex and HIV, and a positive impact on their self-confidence regarding their relationships and sexual behavior (Strange et al., 2002). Interestingly, peer educators did not perceive that their participation as educators in the intervention would have an impact on their sexual behavior and the choices they made (Strange et al., 2002). The authors hypothesize that peer educators' increased confidence regarding managing their relationships was the result of an increase in self-awareness and the opportunity to refine their attitudes, which resulted in increased partner communication and safe sex negotiation (Strange et al., 2002).

Much of the research that has been done on performing arts-based HIV/AIDS education focuses on the impact on the audiences watching the performances (Glik et al., 2002). There is a gap in the literature regarding the impact that comes from participating in an intervention of this nature on the actual performers and on the individuals who are delivering the intervention (Glik et al., 2002). It has been found that peer education can be empowering and advantageous for those involved in delivering the educational messages (Turner & Shepherd, 1999). However, further research and evaluation of programs using a theoretical framework is

necessary to understand the implications of participation in peer education on knowledge and health behavior.

The purpose of this study is to evaluate the role of peer educators in the context of an interactive theater based intervention. In the context of this study, the peer educators are the college students delivering an HIV/AIDS theater-based intervention to high school students in three cities across the United States. This study will explore the impact of participation in theater-based HIV/AIDS interventions on peer educators' knowledge about HIV/AIDS and sexual risk taking behavior.

## **Methods**

### **AMP! Sex Squad**

AMP! (Arts-based Multiple-intervention Peer-education) is a sexual health education program out of the University of California- Los Angeles (UCLA) Art and Global Health Center. It includes a three-part intervention for high school students: (1) Sex Squad performance, (2) HIV-positive speakers, and (3) Safe-Sex negotiation workshop. The Sex Squad is composed of 15 college age students, who develop a series of skits that use personal narrative to convey messages, including sexual health decision-making, HIV/AIDS, relationship violence, etc. This interactive production is then shared with the students from local high schools. This study is interested in the experience of the college students, and how their role as peer-educators has implications for their sexual health knowledge, communication, and risk-taking behavior.

### **Recruitment and Sampling**

Eight in-depth qualitative interviews were conducted with young adults who have participated in an interactive, theater-based intervention called AMP!. Participants were current and previous students at the University of California- Los Angeles, University of North Carolina- Chapel Hill, and Emory University. A purposive sampling method was used

in order to recruit individuals to participate in the study. The inclusion criteria for participation in the study were: (1) individuals must be 18 years or older, and (2) individuals must be past or current participants in AMP! Sex Squad.

Participants were recruited through project directors at University of California-Los Angeles (UCLA), University of North Carolina- Chapel Hill (UNC) and Emory University, who could contact individuals who have current or past involvement with the AMP! Sex Squad. An email was sent to the supervisor of AMP! at each location (UCLA, UNC, and Emory University) outlining the purpose of the study and describing the inclusion criteria for the recruitment of individuals. A flyer was attached to the email for the supervisors to forward to past and current AMP! participants and to post on the Facebook page that was been established for current and past AMP! participants. The flyer explained the purpose of the study, the time commitment for participation, and the inclusion criteria. The principal investigator's contact information was included so that individuals could contact the primary investigator via email to set up a date and time to conduct interviews.

Some participants contacted a project director stating they were interested, rather than contacting the principle investigator directly. In these cases, the project director shared the interested participants' contact information with the principle investigator. The principle investigator then contacted these participants directly to set up a time for an interview.

### **Data Collection**

In-depth qualitative interviews were chosen because this study sought to gather "information on individual, personal experiences from people about a specific issue or topic," specifically "the meaning people attach to experiences" (Hennink, Hutter & Bailey, 2011). Respondents were interviewed by a Collaborative Institutional Training Initiative-certified graduate student from the Rollins School of Public Health at Emory University, who

is trained in qualitative research methods. The semi-structured, one-on-one interviews lasted approximately 60 minutes each. All of the interviews were conducted over the telephone, and they were digitally recorded using an iPad application called AudioMemos.

The recruitment methods and study protocol, including the interview guide, was submitted and approved by the Emory University Institutional Review Board (IRB). Oral consent for participation and for the recording of the interview was obtained from each participant, and each participant was emailed an information sheet detailing the oral consent to which they agreed.

A semi-structured interview guide was developed. See **Appendix I**. Demographic information was collected at the beginning of the interview, including the age and race of each participant, the institution at which they participated in the Sex Squad, their area of study, and number of years they participated in the Sex Squad. The remainder of the interview guide was structured around key constructs of the behavioral framework of social cognitive theory to answer the three proposed research questions. These questions include sexual health knowledge, sexual health communication, sexual risk taking behavior, and the social context in which participants grew up in and currently live. The questions on the interview guide were structured to elicit stories and specific examples from the participants' own experiences regarding sexual health and how they related to their participation in the AMP! Sex Squad. Questions were posed to ask respondents about where they received their information about sexual health, both before and after participating in the Sex Squad; who they communicated with and how they communicated about issues regarding sexual health; and the decisions they have made in terms of risky sexual behavior and how their risk taking may have changed since getting involved with the Sex Squad. Finally, the interviews were designed to elucidate the social context in which Sex Squad members grew up and how their current context and engagement with the Sex Squad

informed their conceptualization of sexual health. Probes were used to further elicit the participants' thoughts and reactions regarding sexual health knowledge, communication, and risk-taking. The goal of these data collection methods was to elicit rich, in-depth responses from participants that provide context and meaning for college students' experiences of being a peer education as part of AMP!.

### **Data analysis**

All eight interviews were transcribed verbatim. Quotations included in this thesis were edited for clarity, and transitions such as 'um' and 'like' were removed. Profane language was removed from respondents' quotes in order to eliminate the risk of stereotyping or offending readers (Corden & Sainsbury, 2006). All transcripts were de-identified, and in this manuscript, respondents' quotations are referenced using pseudonyms. The transcripts were kept on a password-protected computer, and they were imported into the qualitative data analysis software, MAXQDA 10.

Using social cognitive theory as a basis, this study utilized thematic analysis and elements of grounded theory to explore the themes that emerged from the interviews. Eight broad code categories were developed deductively based on previous literature, the constructs from social cognitive theory, and the questions on the interview guide. These broad categories include:

- (1) sexual health knowledge,
- (2) communication with partners and peers,
- (3) risk-taking behavior,
- (4) the five constructs from Social Cognitive Theory,
- (5) influence of social context, such as culture, religion and family life,
- (6) the conceptualization of sexual health and sexual health education,
- (7) the Sex Squad experience, and
- (8) participants' lessons learned.

Examples of specific deductive codes that fell under these categories include shared knowledge, applied knowledge, formal and informal communication, changes in communication as a result of participation in Sex Squad, perception of risk, and decisions



about risk. Codes were also developed inductively directly from the data after reviewing the first three interview transcripts.

Examples of inductive codes that fell under the eight broader deductive code categories are included in **Table 2**.

**Table 2. Examples of Inductive Codes.** Codes were developed inductively and directly from interviews with participants. Direct quotes are included in the table below to illustrate examples of each inductive code that was developed.

Inductive Code	Textual Example(s)
<b>Influence of Social Context</b>	
Culture	“For me culturally I think of what I grew up seeing in soap operas, in Spanish soap operas, and basing what we think is supposed to happen, even like a first kiss what kissing is supposed to be like based on what we see on TV or something like that.” –Maria
Society	<p>“We are such a sexually driven society where everybody’s having sex and so you kind of feel out of place sometimes and then also people think, ‘Oh well, what’s wrong with you that you, don’t want to have sex?’ like something’s wrong with you.” –Miranda</p> <p>“I’m not really sure where I got this message from but I know that someone in my psyche has gotten this message engrained into my head that women should pretend that they are enjoying it even if they are not and shouldn’t really say much. So communication is kind of weird but maybe I got that from the media, just from the way that sex is portrayed in movies and stuff like that.” –Eleanor</p>
Fear	“Well for my parents I get the fear of sex and I get the fear of having it be a risk behavior, which is good and bad.” –Samuel
Inaccuracy/Myths	“I didn’t have much education. There were a lot of myths that I believed and there was just a lot of contradicting information that I had.” –Miranda
<b>Conceptualization of Sexual Health &amp; Sexual Health Education</b>	
Fluidity	<p>“You come to find that sexuality is something very fluid and that it doesn’t really impact how you perceive a person.” –Samuel</p> <p>“I see sexual health as so multi-faceted. It’s so important to hear so many different experiences and so many sides of everything.” –Luna</p>
Systemic	<p>“I was completely blind to the patriarchy, I was completely blind to gender dynamics, completely blind to the big picture of how everything works and systems of oppression.” –Samuel</p> <p>“But for me it helped me articulate how I was really feeling about things because I didn’t understand some of the systems like the ways that people can be oppressive to people to other people’s sexuality and stuff like that.” –Miranda</p>

Personalized	<p>“I realized that everybody had a sexual history, you know, and that the reason that abstinence only education doesn’t work is because it treats everyone like they don’t have a sexual history. It treats everybody like they’re these kind of empty beings and that without abstinence only education they have no idea what to do. And then you realize that everybody encounters sex at a very young age and that everybody encounters sex in their own way. That’s why it was important to tell our stories and it was important to talk about where we come from. I think that’s what makes it easier to relate, it makes it easier to envision yourself in situations, and it makes you feel less alone. I think I ended up feeling much less alone and that felt really good.” –Samuel</p>
<b>Sex Squad Experience</b>	
Sharing	<p>“You know I think that it is probably one of the cardinal things that is amazing about the Sex Squad is that there’s this immense amount of sharing that happens throughout the process of being a Sex Squad and in learning about other people and in learning so much about people that are very different than you.” –Samuel</p> <p>“The best way to communicate is to just talk about your own experiences and communicate with your own experiences in mind.” –Luna</p>
Acceptance	<p>“I knew that I wasn’t going to be met with any backlash or any questions. I felt like sharing and it was very hard for me to share and that people thanked me for sharing. People told me that that my experiences were important. I felt valued by the not just other participants but also by instructors.” –Maria</p>
<b>Personal Reflections and Lessons Learned</b>	
Personal Growth	<p>“I would say [it] definitely has made me way more confident in understanding like what I want but also not you know seeing that things are very fluid and really we’re changing constantly so who I was even at the end of the year in Sex Squad last year is definitely not who I am right now.” –Luna</p> <p>“I think the first thing was I was willing to be open, willing to learn, and I understanding that I didn’t know that much but then I knew more than I thought I knew at the end.” –Miranda</p>
Self-Awareness	<p>“I think a lot of the things that I’ve learned in Sex Squad are things that already on some level believed in and if you had asked me about it I would have said that that’s what I believe in but I think that being in Sex Squad has helped me explore them more and also slowly but surely actually live them more.” –Eleanor</p>
Authenticity	<p>“A huge challenge is that this was the first time that you were putting your real self on stage and bearing your real emotions when usually you’re just playing a character. But these characters are brought to life by our own personal experiences and are so real that it’s just so much more powerful.” –Luna</p>

Interviews were analyzed using the constant comparative method (Hennink et al., 2011). Sexual health knowledge, communication, and risk taking behavior were compared across participants. This shed light on the similarities and differences in the impact of the respondents' participation in Sex Squad on their experiences of sexual health.

### **Results and Analysis**

A total of eight interviews were conducted with individuals who had participated as peer educators in the AMP! Sex Squad. Four of the respondents currently or previously attended the University of California – Los Angeles, three currently or previously attended the University of North Carolina – Chapel Hill, and one participant currently attends Emory University in Atlanta, Georgia. See **Table 3** for the respondents' current year of school or their year of graduation and their undergraduate major. The average age of respondents was 21 years, and half self-identified as white, two self-identified as Hispanic or Latino/a, one self-identified as Black, and one self-identified as Asian/Indian.

**Table 3. Respondent Demographics.** This table outlines the demographic characteristics for the eight respondents from this qualitative study. Each of the respondents reported their age, the race or ethnicity with which they identified, their school affiliation and year of graduation, their area of study, and the city where they lived while growing up. Variations in demographic characteristics can account for the uniqueness of responses detailed in the results.

Name	Age	Race/Ethnicity	School, Year	Major	Grew up
Samuel	22	Latino	UCLA, 2013	World Arts and Cultures	Philadelphia, PA; California
Luna	20	White	UCLA, 2015	Neuroscience	San Francisco, CA
Eleanor	20	White	UCLA, 2015	World Arts and Cultures	Danville, CA
Julia	20	White	UCLA, 2015	World Arts and Cultures	Virginia Beach, CA; England; Australia; Massachusetts
Miranda	22	Black	UNC, 2013	Communications	Greensville, NC
Maria	20	Hispanic/Latina	UNC, 2016	Global Studies	Durham, NC
Claudia	22	Asian/Indian	UNC, 2013	Environmental Health	Knoxville, TN
Sabrina	22	White	Emory, 2014	Theater, English	Atlanta, GA

This analysis explores the role that participation with the AMP! Sex Squad had on the participants' sexual health knowledge, communication, and risk-taking behavior.

Overall, respondents noted a distinction between technical and systemic sexual health knowledge, and they reported increased comfort when sharing sexual health knowledge with their peers. Respondents also discussed improved partner communication and changes in decision-making around risky sexual behaviors. It is important to note that although the experiences of each respondent were very unique, common themes emerged around the impact of the Sex Squad on sexual health knowledge, communication, and risk-taking behavior.

### **The Sex Squad Experience**

The Sex Squad was an opportunity for respondents to learn from their peers and to engage in critical reflection about their own sexual narratives. Having a space to share these experiences with others enabled participants to identify the fluidity and

individualized nature of sexual health and to realize that differences in sexual narrative impact how individuals interact with the world. Luna reflected,

“We’ve all learned so much from each other just by growing together, and opening up and seeing every person is so unique in their experiences. That’s why it’s wonderful to have every sort of perspective because no person’s journey through life is the same. Everyone’s thoughts and actions are shaped by the experiences that they’ve had.”

The diversity of perspectives shared by members of the Sex Squad brought a richness to the group as a whole. Even though everyone had a unique sexual narrative, participants were able to identify likenesses and find solidarity and empowerment in their similarities and connections. Sabrina shared how she felt, “more empowered because I found other people that I could relate to and that are struggling to process that and find the voice in that.” Being part of a group of unique individuals that was transparent and comfortable sharing their sexual narratives enabled respondents to identify similarities in their sexual narratives. The relationships that arose out of these similarities played an important role in increasing confidence to lead an empowered life. Eleanor recalled,

“I think the biggest thing for me has been how close I’ve gotten to the people in Sex Squad and how open we’ve been able to be with each other. And how supportive we are of each other’s art. Having the close friends who know so much about me has helped me raise my self-respect and feel stronger as a person and therefore have more power in my life.”

Sex Squad allowed individuals to share their personal sexual narratives using theater as a medium. The sense of support that the group fostered around each individual’s art translated to a positive self-concept that empowered participants. Julia shared,

“Being part of a performative collective where your voice is always being heard and always is being valued helps you build a very strong sense of self. Once you go out into the world you retain that sense of self in a lot of ways, and I definitely I feel I felt that way like I it wasn’t just the sexual health knowledge it was the performance of it that made me so empowered.”

The Sex Squad was a setting where participants felt they could speak out about sexual health topics, and their perspectives and opinions were valued. This supportive

environment gave respondents the self-confidence to share their knowledge and views on sexual health topics with people outside of the Sex Squad.

### ***Peer-based Theater Education***

The Sex Squad provided participants the opportunity to serve as peer educators for high school students. The respondents described the response they received from the high school students as positive. They felt that they could provide accurate, unbiased information in an interactive and fun way that engaged the high school students and prompted them to ask questions about sexual health. Luna recalled,

“What I love about the Sex Squad is that it’s really providing a wonderful opportunity for high schoolers to see that people who are very close to their age are thinking about exactly the same things and still don’t have much figured out yet either, just you know trying to be themselves you know and be you know breaking down the barriers and like talking about sex, laughing about sex.”

The Sex Squad was an effective intervention for high school students because the members of the Sex Squad were college students who were close enough in age to garner the respect of the high school students while still being relatable. Since the performers were close to their age, the high school students were able to relate to the performers’ experiences, which created an environment where sex could be discussed openly and informally. This helped to break down barriers that ordinarily prevent communication about sexual health topics, such as feelings of embarrassment or concerns about not knowing the proper terminology to ask questions or be able to engage in conversations. Maintaining respect was important in order for Sex Squad members to assert a sense of authority in the sexual health knowledge they shared. Julia reflected,

“It’s making your claim, you are on stage and you are an authority to these younger high schoolers. They’ll come up and ask you all these questions and you’re like, ‘Since when am I qualified to answer these questions?’, but you are. I hate the word ‘position of power’ but it puts you in a position of mentorship to these people and you realize that you do know more than you think you do. That your knowledge is valuable.”

The Sex Squad empowered respondents to feel confident in their sexual health knowledge. Performing for high school students and answering their questions made the members of the Sex Squad feel that their knowledge and opinions were valuable. The use of theater as a medium for delivering sexual health education messaging was also an important part of the peer education experience. Eleanor shared,

“The art, using humor, like I’ve see these teenagers actually pay attention through our entire show. And I’m like, ‘Woah! You’re in health class right now and you’re paying attention.’ I think using theater that includes both humor and personal narrative is huge. And being so raw and real about it and honest and non-shaming and just opening conversations, I think it’s all huge, all that stuff. I don’t really think like a traditional classroom setting is really the best way to teach people about [sexual health].”

Using theater to deliver messages that are traditionally not discussed or presented in a very dry manner led to increased engagement with the high school students. The Sex Squad performances used humor and personal narrative in their performances to promote open conversations that were candid and non- accepting. This method for delivering sexual health messages enabled high school students to reflect on the informant and come to their own conclusions to inform their perspectives and opinions. Maria discussed,

“I think before what I felt was going to happen was more of showing scenes and trying to make it obvious to people what to do and what not to do. Like telling people, showing them through a different way from lecturing them but still kind of lecturing them if that makes sense. What it became was showing them something and then letting them draw conclusions by either feelings or memories or direct connections they had to what was being performed on stage.”

Maria was not initially expecting to deliver sexual health messages in an interactive way, which enabled high school students to make their own choices rather than just telling them about right and wrong sexual behaviors. However, this proved to be an effective and beneficial method, both for the high school students and for the Sex Squad members themselves. Interactive theater empowered the high school students to increase their knowledge and form their own opinions regarding sexual health topics. The act of performing empowered the Sex Squad members to be confident in their sexual health

knowledge and communication skills, which translated to other parts of their lives.

### **Technical versus Systemic Sexual Health Knowledge**

During the interviews, all of the respondents described the sexual health knowledge they gained from the Sex Squad. However, the types of knowledge emerged on two distinct levels. First, they talked about the technical knowledge, including information about various types of protection, birth control, and sexually transmitted infections. The Sex Squad also exposed participants to systemic knowledge, on topics such as social justice, oppression, and stigma, which are intricately connected to sexual health. Luna talked about the technical knowledge and skills that she gained as a result of participating in the Sex Squad that she could apply in her sexual life. She reflected,

“I definitely like knew about contraception, about condoms, but I was definitely way less knowledgeable about how to put them on and actually putting them on a penis and you know check the date, like all that stuff.”

Claudia also discussed learning about all of the different mechanisms for HIV transmission in the Sex Squad and how her “general knowledge” about sexual health topics and how to protect herself against things like STIs improved. She discussed,

“Looking at the actual health aspect of it, I didn’t know all the ways that HIV could be transmitted. I learned a lot more about how different barrier methods can be used for pregnancy and STI prevention. I learned the difference between an STI and STD. I feel like my general knowledge has improved. I at least feel more comfortable talking about things.”

Eleanor expressed a similar increase in knowledge and skills, particularly regarding the available options available for contraception methods. She explained, “I know how to put on a condom correctly now. I didn’t even know about female condoms before so I am more aware of the options I would say.” These three quotes illustrate an increase in technical knowledge regarding sexual health that participants gained during their time in the Sex Squad. This technical knowledge made respondents more aware of things like using



condoms and how to protect against STIs and pregnancy, and it provided them with knowledge that they may not have had before joining the Sex Squad.

The Sex Squad incorporates issues relating to sexual health justice. It also provides participants with the technical knowledge and skills to take the appropriate measures to protect against the risk for disease and pregnancy in their own sexual lives. Respondents cited instances where the Sex Squad provided them with an environment in which to reflect on the impact of societal stigma on populations that may be marginalized. Having an environment that allowed respondents to engage in critical reflection and to identify their own personal perspectives and feelings on sexual topics without being afraid of judgment was important to build confidence to talk about these subjects in an informed and unbiased manner to people outside of the Sex Squad. Maria shared,

“I just learned more about the implications we create socially and how that affects how people who don’t fit into the norms are treated or feel in a negative way. So the example that I truly remember that kind of really impacted me was that we had some guest speakers one day that were HIV positive and they came in and talked about how when we talk to someone about either getting tested to not refer to it as people like making sure that they’re clean because that then implies that people who have HIV are not clean. And that stigmatizes it.”

The Sex Squad’s focus on HIV enabled participants to stop and think about issues relating society’s role in oppression, and how their personal views fit into these systems of oppression. Miranda discussed that her participation in the Sex Squad changed her perceptions of individuals that may make different sexual decisions than she does. She identified concepts like “ho shaming” and “slut shaming,” which reflect the stigma in our society around women as sexual beings who act on sexual feelings and may have multiple sexual partners. She also recognized the impact that shame has on individuals’ self-concept and well-being. She reflected,

“It helped me articulate how I was really feeling about things because I didn’t understand some of the systems like the ways that people can be oppressive to people, to other people’s sexuality, and stuff like that. So taking the class I realized like ho shaming and slut shaming like really how that affects somebody and how

they feel about themselves. So that's made me be more understanding with people and understanding that it is your body and what you want to do with it is your choice and that shouldn't minimize who you are."

These final two examples illustrate the personal reflection that was prompted by participating in the Sex Squad, and how Maria and Miranda have a deeper understanding of systems of oppression than they had before joining the Sex Squad. This has enabled participants to think about these societal norms in a different way, and it has prompted a change in their opinions and perhaps how they talk about sexually marginalized populations.

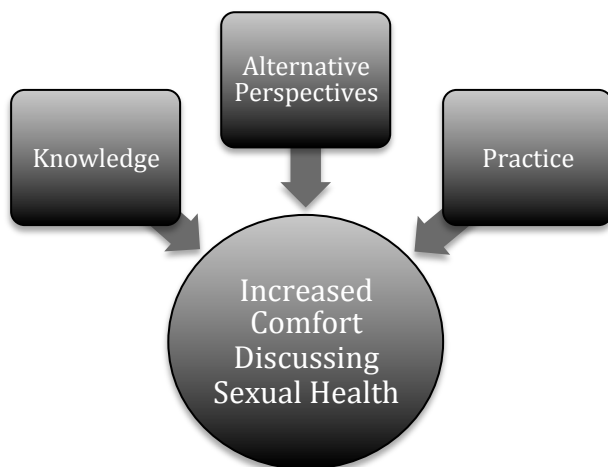
### **Interpersonal Communication About Sexual Health**

#### ***Comfort Sharing Sexual Health Knowledge***

Participating in the Sex Squad provided respondents with an opportunity to increase their comfort and willingness to discuss topics related to sexual health and to share their sexual health knowledge with others. Respondents also discussed how being transparent and confident in their communication with their peers both during Sex Squad rehearsals increased their ability to be comfortable engaging in topics of sexual health in their interactions outside of the Sex Squad. They noticed that being confident in their own communication about sexual health topics, such as using condoms or where to get tested for STIs, helped to put other people at ease when talking about potentially uncomfortable topics relating to sex. Miranda recalled, "I realized that talking about sex is awkward for a lot of people and being open with some people it makes them feel like they can talk to you and it kind of breaks down the awkwardness." In a similar manner, Luna shared, "I love how like easy it is for me to talk about everything sexual now, it's beautiful. When you talk about it, it encourages other, well other people are like I guess we can talk about it." These two examples demonstrate the participant's ability to discuss sexual health topics

confidently and in a manner that makes others comfortable and open to discussing potentially awkward topics.

Increased knowledge, exposure to alternative perspectives, and practice all resulted in respondents feeling an increased level of comfort with discussing sexual health with others, as depicted in **Figure 1**.



**Figure 1. Comfort Sharing Sexual Health Knowledge.**

*Respondents expressed increased comfort in discussing sexual health topics as a result of increased sexual health knowledge, exposure to alternative perspectives, and practice with communication, which encompasses the theater and artistic aspects of the AMP! Sex Squad.*

The Sex Squad provided participants with the knowledge to feel comfortable and confident sharing sexual health knowledge with their peers. Julia compared her experiences providing her friends with advice about sexual health issues before and after participating in the Sex Squad. She recalled,

“If I had friends that were making decisions I would be straight up with them but I didn’t have the knowledge to back it up. I would just be like that’s not a good idea. Now I am a lot better about saying it in a really nice way where I’m not offensive at all. I’m just like this is why.”

Having comprehensive and accurate knowledge of sexual health topics was an important part of respondents feeling comfortable discussing sexual health. The Sex Squad provided participants with the knowledge, and it gave them a setting in which to practice talking about sexual health topics openly with their peers. A combination of practice and knowledge increased respondents’ comfort levels. Eleanor specifically reflected on the

opportunity for practice that the Sex Squad provides. She shared, "I think it's [Sex Squad] given me more practice talking about it so that I just feel more comfortable talking about it because I talk about it so much." Sex Squad not only gave respondents the opportunity to practice talking about sexual health topics, but it also gave them the language and exposure to social justice issues related to sexual health. Samuel shared,

"I mean for one I am willing to talk about it. And talk about it in a lot of, I mean a whole different capacity. Able to be honest, able to be less afraid of opening up and confronting things like my masculine privilege and my fears that come because of that. For example, I think that it has made me a lot less afraid of engaging those problematic subjects and it has also made me a lot more fluid and open to talking about everything."

The Sex Squad provided respondents with a new perspective on issues relating to sexual health in a safe space. They could ask questions and explore their feelings about systemic issues around gender and sexuality, such as masculine privilege, without being afraid of being vulnerable. Sex is a persistent theme in American society, and it is constantly portrayed in the media through advertising and popular culture. However, it is considered inappropriate to openly discuss topics relating to sexuality and gender. People often do not want to discuss subjects that they are not knowledgeable about or that make them uncomfortable, such as gender identity, different types of sexual expression, and societal norms around gender and sexuality. The Sex Squad empowered participants to feel confident in bringing up issues related to sexuality, oppression, and sexual health, and in talking about them in an unbiased and accurate way. In a similar manner, Eleanor recalled,

"I think I have the language to talk about [sex] with people and I have practice in talking about it openly. When I have a conversation about sexual health in general I kind of have this idea in mind that these principles that I learned in Sex Squad about talking about it like to be open and to be non-judgmental."

A combination of practice and openness enabled respondents to talk accurately and honestly about topics relating to sexual health, ranging from accurate facts about birth control and the transmission of STIs to societal gender norms and systems of repression.

The Sex Squad provided respondents with knowledge and facts and exposed them to alternative perspectives, which were then translated into an increased level of comfort and self-efficacy when talking about sexual health with others.

### ***Partner Communication***

Improved partner communication was a recurring theme that emerged in the data. Participants cited their experiences with the Sex Squad as enabling them to be more comfortable and confident in discussing topics of sexual health with their own partners. Samuel provided an example that highlighted communication about the physical pleasure and emotion of sex with his partner. He talked about his girlfriend, who he had been dating on and off for the past six years. They got back together a year ago, which was right in the middle of his two years participating in the Sex Squad. Samuel provided concrete examples of his communication with his girlfriend, including,

“Talking about what we want in in the moment, talk about what we want before, what we want after” and the “process of having her giving feedback as to when I am doing things, exploring new ways that we can stimulate each other, and always doing that with an open communication of, “That feels good”, “No, that doesn’t feel good”; respecting each other’s bodies and boundaries when it comes to creating that pleasure.”

He then went on to reflect,

“I think that the amount of communication and the level of communication that it came to, having her be a sexual partner, was light-years away from how it was when we were first dating. She noticed it you know, and she has noticed it and pointed it out as well...I know that’s directly as a result of being in the Sex Squad and having thought about those questions; being asked to consider those questions.”

After participating in the Sex Squad, not only did Samuel observe a difference in his own level of communication with his partner, but his partner also noticed the changes when she compared his behaviors before and after he joined the Sex Squad. The Sex Squad provided an opportunity for personal reflection on intimacy and mutual pleasure that could then be applied in the participant’s sexual relationships.

Not only was it important for participants to communicate about the choices they were making about their sexual health, but it was also vital to make sure that their partner understood why they were taking certain actions. Claudia reflected, “Not only am I also practicing the same behaviors that I learned, but I also make sure to explain to my partner and make sure that we’re both on the same page and we both understand why we do things and not just like do it.” A mutual understanding between sexual partners around the choices being made regarding protection and the types of behaviors in which they chose to engage was essential to healthy partner communication. This concept is further illustrated by an example specifically about methods of contraception. Maria discussed her relationship with her male partner and how she makes sure that her boyfriend is informed about the choices she makes regarding contraception and how that impacts their relationship. She shared,

“I talk about how hormonal birth control works with my male partner and explained how hormones affect a lot about even my mood or my eating habits or the changes in my body and what it does to actually prevent me from being pregnant. I want him to know how it works and just help them be more, even if they’re not directly involved in either going with me to the doctor’s office to get either my Depo shot or something like that, but that they know what’s going on so it’s more real to them. Like it’s not something that happens behind the scenes, just something I take care of but it’s something that we talk about and they understand how it works and just make them more aware about what happens and what measures that we’ve taken or I’m taking to prevent pregnancy.”

What is of particular interest in this quotation is the respondent’s desire for her partner to not only be factually informed, but also to feel like the decisions they were making, specifically around contraception, were inclusive and transparent. This inclusive process was important to give her partner a sense of responsibility about the sexual decisions they were making. Contraception is often perceived as a choice for the woman to make since its main function is to prevent pregnancy, which directly impacts her body. An improvement in communication about choices around contraception between sexual partners leads to a feeling of mutual accountability and to positive choices about sexual health.

Finally, Eleanor talked about how her communication with her current sexual partners has changed as a result of participating in the Sex Squad. She recalled,

“I think I do communicate more with my partners. I definitely communicate more about the physical health side. Like I said, asking them when they’ve been tested. With my current ongoing sexual partner I asked him to get tested before we had sex without a condom which was new for me.”

However, she also reflected,

“It’s kind of ongoing and still you know something that’s difficult for me is talking about sex with my partner. Like I don’t know why, that’s just always been something, even though I know that’s what I want in my life, that’s been difficult for me, and so like just communicating about you know like what feels good or what I want to do with protection.”

Eleanor shared that the Sex Squad has helped to improve her confidence when communicating with her sexual partners about physical health, but she also admitted that it is still a constant challenge for her to assert herself. This example illustrates that while Sex Squad did provide participants with tools and resources that enabled improved partner communication, not all respondents felt increased self-efficacy to take action to communicate with a sexual partner.

All four of these examples highlight the respondents’ communication with their respective partners, and each respondent discussed sharing a different sexual health topic. These four examples highlight respondents’ willingness, confidence, and the value they place on communicating about sex with one’s partner. However, as Eleanor pointed out, the development of partner communication is a continuous process that requires a proactive effort on the part of the individual to develop the confidence and self-efficacy to bring up topics related to sexual health, including methods of protection.

### ***Serving as a Resource***

In addition to having increased comfort discussing sexual health topics with their peers, respondents also became a resource and source of sexual health information for others. Claudia shared,

“So before I joined the Sex Squad I was pretty comfortable talking to my friends and stuff about these kinds of things but after being in the Sex Squad I was actually comfortable giving out real information rather than talking and showing friendly support and like you know we can figure this out together type thing. I felt confident to actually provide answers and to provide like healthy, real information. And so it went from me trying to seek resources to being the resource, which is pretty cool.”

The Sex Squad provided respondents with the self-efficacy to provide their peers with accurate and comprehensive sexual health information. As Claudia pointed out, there was a shift from her seeking resources to actually being able to provide resources to others. Maria alludes to a feeling of responsibility to share the knowledge she gained in the Sex Squad with her friends and peers. She reflected,

“With people I know or with my friends I definitely feel a responsibility and a desire to share with them what I know on a more intimate level. In general, with people outside my friends if [I] hear a topic brought up maybe in class that I can talk about a little bit I talk about it in a very informational and non-biased way especially to people who I don’t know...I definitely want to give accurate information and if there is a question or a topic that I’m not sure about not to misinform and to provide information and not make something seem more positive than something else.”

There is a distinction between the types of sexual health information that respondents shared with their friends versus what they shared with acquaintances or peers. However, in both cases it was important to them that the information they shared was accurate and that it was presented in an impartial manner. Sex Squad provided both the technical knowledge and a supportive environment that promoted empowering individuals to come to their own conclusions regarding sexual health topics and decisions, both of which translated when participants served as resources for others.

Samuel and Miranda both provided concrete examples when they shared the knowledge they gained in the Sex Squad and serve as a resource for a friend. Miranda recalled,

“One of my friends just became sexually active and he asked me to go to Walgreens with him to get condoms and he was asking me a lot of questions of what I learned from class. So I think just being there and being comfortable talking to him it made



him feel more comfortable about what he was doing being safe about, and it also made me feel good because I felt like that was knowledge I could share with him.”

In this instance, Miranda was able to provide accurate information and was comfortable discussing sexual health topics with her friends. This example also illustrates how others outside of the Sex Squad viewed participants as resources for sexual health questions and support. This supportive role extended beyond technical knowledge to systemic issues related to sexuality. Samuel shared,

“I guess one of the clearest cut examples of that would be whenever a friend of mine is saying something that is really problematic or that’s straight up not true, being able to kind of step in and be like no you’re wrong.”

After participating in the Sex Squad, participants were seen as resources for sexual health knowledge and support by their peers. Respondents’ comfort level for communicating about topics related to sexual health and the open-minded perspective fostered by the Sex Squad enabled them to serve as resources for technical and systemic sexual health issues.

## **Sexual Risk-Taking Behavior**

### ***Characterizing Physical Risk***

Respondents were very consistent in their characterization of risky sexual behaviors. Most study participants perceived risk related to sexually transmitted infections and pregnancy. They discussed the role that the Sex Squad played in their ability to identify risky sexual behavior and how that knowledge has impacted their choices. Maria shared,

“I think that if sexual behavior has the risk of maybe of you contracting a sexually transmitted disease infection and also where there’s a risk or pregnancy can occur. Also, drinking or using drugs to a point where a situation can become sexual and you can’t control exactly what happens in a situation is risky as well.”

The context in which risk behaviors occur was also important in how respondents conceptualized sexual risk. Respondents perceived situations as detrimental to their sexual health when communication channels were not open about both the physical risks associated with having sex and the strategies to mitigate those risks. Eleanor reflected, “So I

think it's very like situational. I think that any situation where you're not using protection is going to be more risky; any situation where you're not talking about getting tested is going to be risky." This example highlights the importance of partner communication in mitigating risk when engaging in sexual activities. In a similar manner, Miranda pointed out the risks associated with failing to communicate with your sexual partner about using protection or being unaware of their sexual health status. She commented,

"I'm still trying to process some of what I think as sex risky behavior, but I really do think not using protection and not really knowing or even asking the status of your partner, you're taking risks. In reality you're taking a risk every time you have any sexual activity. That's how I look at it. Now the risk can be higher if you do certain things of course, but there's always a risk."

What is interesting to note in this participant's experience was the idea that choosing to engage in any type of sexual activity comes with a certain level of risk. While respondents recognize this continuum of risk, it suggests that there is a process of weighing the pros and cons of engaging in certain types of sexual behaviors. Eleanor shared,

"I think it's a spectrum. Having sex at all has like at least a tiny bit of risk. So I think on the far end of really risky is having sex without a condom with someone that you don't trust well enough to know really what's going on down there."

The "spectrum" that Eleanor discussed is of particular interest because it suggests that the consequences of taking a risk are not the same in all contexts. There are certain behaviors and situations that participants perceive as more risky, including having sex without a condom, engaging in sexual activities when drugs and/or alcohol are a factor, and not communicating with one's sexual partner. The Sex Squad appears to play an integral role in facilitating the participants' perceptions of risky sexual behavior and defining a "spectrum" of risk. Samuel reflected,

"Now that I have been in the Sex Squad I feel like risky sexual behavior is sexual behavior that you are engaging in without being in control of the consequences. So in the sense that if you have sex and you are not ready to have children and you are not ever ready to have an STD then a risky sexual behavior is to have sex without a condom or to have sex without any protection."

The Sex Squad also provided participants with a sense of responsibility for their actions when making decisions regarding the type of risky sexual behaviors in which they choose to engage. Having an acute awareness of the consequences that could result from not using a condom or any form of protection and an understanding of how those consequences could impact their future in tangible ways were important in their perceptions of what is risky versus what is not. However, increased knowledge and awareness of the potential risk from certain sexual decisions did not cause fear or disempower respondents. Julia shared,

"I'm definitely more aware of all the risks, but in a good way. Not in a way where I'm like, 'Oh my God, I'm never having sex again'. Its just, 'Oh my God, I'm going to take control of my sex life in a way that empowers me and understand how to communicate with my partner'."

The Sex Squad enabled participants to have an increased awareness of the risk associated with certain sexual behaviors, including using protection to prevent pregnancy or STIs. This increased awareness of risk did not prevent participants from engaging in sexual behaviors. Instead it enabled them to make informed choices about the behaviors in which they chose to engage and the measures they took to protect themselves.

### ***Sexual Risk and Emotional Well-Being***

While respondents identified the physical risks that go along with certain sexual behaviors, they also referenced the importance of emotional stability when deciding to engage in sexual activity. They considered it risky for an individual to have sex if they were in a negative emotional state or mindset. Luna pointed out,

"Also risky in terms of what state of mind you're in when you're having sex. It's very risky to go into sex with a bad, uncomfortable, lonely, or intoxicated state of mind. Because it should really be a beautiful connection between two people that you're both really down for, and sadly a lot of the time that's not the case."

This is an important example because not only does it point out the emotional risk of engaging in sexual activity with feelings of insecurity, a negative mindset, or intoxication, but it also captures an example of how a sexual experience between two people should be a

mutual connection between two individuals. Samuel went into more detail about the importance of “loving yourself” when choosing to engage in sexual activities and his belief that if this is missing, then it is perhaps the “riskiest behavior of all”. He shared,

“I think that risky sexual behavior is when you do it emotionally without loving yourself, without being able to love your body, without being able to love the part of you that, because if you don’t love yourself and you jump into sex, it’s very easy for you to kind of value yourself by sex instead of valuing yourself in having sex. I actually think and I actually think that that’s the riskiest behavior of all. And I feel that’s the riskiest behavior of all because when you don’t value yourself and you add sex to the equation, it’s very hard to protect yourself, it’s very hard to take to take the initiative to protect yourself and take care of yourself, and not compromise on things like not using condoms or having sex while drunk because you don’t value yourself.”

According to participants, there is an important intersection of emotional and physical risk that results when an individual chooses to engage in sexual activities. Besides providing respondents with knowledge and skills to mitigate the sexual risks they were taking on a physical level, the Sex Squad was also an environment that facilitated contemplation around sexual risk on an emotional level. The importance of mental and emotional well-being came out in the participants’ characterizations of risky sexual decisions.

### ***Decision Making About Risk***

Knowledge and awareness of the risks that go along with certain sexual activities does not always translate to behavior change. Eleanor reflected,

“To be just like totally honest with you, I feel like I don’t always, even though like now I know what I need to do to like protect myself...I think my line of where on the spectrum I’m willing to go has shifted. I think my willingness to like look at the fact that there’s a risk and not just have it in the back of my mind has shifted.”

The perception of a “spectrum” of risk is still evident here; however, this example further illustrates the decision to engage or not to engage in risky sexual behaviors. While participants may not completely abstain from risky sexual behaviors, they are at least aware that the risk is a possibility, so they can make an informed decision about the types of risky sexual behaviors in which they choose to engage. The source of information regarding

sexual risk appears to be an important factor in this decision-making process. Maria discussed how the age of the individual providing the information or advice regarding sexual health impacted her behavior. She reflected,

“Hearing from other people’s experiences and realizing that sometimes, even though we know we have information, it kind of depends on who were hearing it from; that we accept it or it really makes an impact on us. I was being educated by adults and I educated people younger than me, but now that I had an experience with people my age, I realized more behind the thought process that goes into sexual behavior and making decisions that I realized some of the decisions that I was making, that they were risky even though I wasn’t fully believing that they were. Because I either hadn’t experienced for myself or because I didn’t know anyone who experienced it. Until I heard about others experiences that it really became something that I didn’t want to experience.”

The above example highlights the significance of age in the process of observational learning and how that impacts a decision to engage in risky sexual behavior. Maria explains that getting information from adults and sharing information with younger people was not enough to truly conceptualize and consider some of the decisions she was making. She was not able to reflect on her own perceptions of risk and how that played out in her own sexual activities until she became part of the Sex Squad, where she was receiving information and engaging in conversations about sexual health with her peers and people her own age. Since the participants in the Sex Squad were her own age, she could relate to their experiences and apply those experiences in her own decisions.

Respondents also reflected on how their decision-making around the sexual risks that they choose to take has changed as a result of participating in the Sex Squad. The Sex Squad provided them with the knowledge and awareness to prioritize their sexual health and make choices that would not adversely affect their health. Maria shared,

“As far as personally in my behaviors and my health and safety, just to make it more important, if that makes sense. I think a lot of the risky decisions, that I know better, if that makes sense. Like the risky decisions I made, I used to make, I don’t have I can’t say that I didn’t know or I know better. I know the risks and I know what is risky and what I should avoid and so there’s no reason for me to put myself at any more risk because I know.”

Even before their participation in the Sex Squad, respondents sometimes knew that the sexual decisions they were making were not positive. The Sex Squad provided them with more concrete information about the physical risks they were exposing themselves to, which prompted them to change the types of risky behaviors in which they engaged.

### **Conceptualization of Sexual Health**

After participating in the Sex Squad, respondents had a deeper understanding of sexual health that encompassed both the physical and emotional dimensions of well-being. They identified an interplay between self-concept and an individual's perception of the world. Samuel reflected,

“I think that when most people think about sexual health they think of a lesson plan...and people don't really think about sexual health and health in general as being your mental health and the way that you view yourself. The way you view the world around you and how those viewpoints affect the way that you protect yourself, affect the way that you treat yourself in relationships, and the way that you allow yourself to do certain things or don't allow yourself to do certain things. I think my concept of health has been broadened and expanded and taken into a meta level that I don't think I would have had had I not been a part of the of the Sex Squad.”

This quote illustrates the multiple dimensions of sexual health that participants were exposed to as a result of the Sex Squad. Exposure to a broader view of sexual health that incorporates mental and emotional health impacted the types of sexual activities that respondents chose to engage in and how they conceptualized themselves as sexual beings. Specifically, when thinking about sexual health education, Sabrina identified,

“My definition is to empower a person to know that they have sexual volition, choice in their sexual things. I think it does go beyond just like, 'Here are some diseases you can get, here's a condom'...I feel it's all about choice. I think that's what sexual education for me is, is that you should feel empowered in your sex life to be able to ask for protection, to be able to do. go as far as you want to or as far as you don't want to, to know that you have a voice and that your body is your body. I think its also a celebration of the body.”

The quotes from Samuel and Sabrina convey the importance of a sense of autonomy when it comes to sexual health. An individual's choices regarding sexual health and how they

communicate those choices with others is at the center of physical and emotional well-being. In order to maintain a healthy balance between physical and mental health, it is important to have the self-efficacy to make positive sexual choices and to interact with the world in a way that empowers you to communicate those choices with others in a manner that commands respect.

Another important part of this reflection process and development of a positive self-concept regarding sexual health was talking about sexual health topics with others and hearing multiple perspectives. Luna shared,

“I see sexual health as multi-faceted. It’s so important to hear many different experiences and many sides of everything. Also, life really does include sex a lot, and a lot of people just never talk about it. I just think, for me I think that sexual health is really just about talking. That’s a very simplistic version, but I think it’s wonderful that the Sex Squad does it with theater, song, and dance and making it funny and laughing about it.”

Sex is very prevalent in today’s society, but it is not customary to talk about it openly.

Therefore, discussions with peers about sexual health topics are an important way to fully understand all of the different components of sexual health. However, as Luna points out, these conversations do not always have to take place in a formal setting, and the Sex Squad provided a unique opportunity to engage with sexual health topics through the arts and to reflect on topics that are often presented in a serious tone in an interactive and affirmative way. After engaging with sexual health topics from this perspective, respondents saw the root of sexual health being about having conversations and talking about sex. Eleanor reflected,

“I see the term sexual health as being much broader and having to do with conversations about sex. I think that’s something I’ve believed in for a long time, but now I have the vocabulary to talk about it and the knowledge of like how to approach talking about it.”

The Sex Squad provided participants with the knowledge and the terminology to be able to talk about sexual health topics. This was essential because feeling empowered and confident in communicating about these topics is at the heart of sexual health.

### **Discussion**

This study sought to understand the role of peer educators in the context of an interactive theater based sexual health intervention. The three areas of focus included sexual health knowledge, communication, and risk-taking behaviors, as organized around key constructs from social cognitive theory. Five major themes emerged from the data. The first centered on peer-based theater education and the impact of being part of a “performative collective” on respondents’ confidence in discussing topics related to sexual health. The supportive and accepting environment provided by the Sex Squad, combined with the arts-based nature of the intervention activities, promoted feelings of empowerment and self-efficacy among participants to both share their knowledge with others and to make informed decisions regarding their own sexual choices. A distinct difference between technical and systemic sexual health knowledge emerged from the interviews. Respondents discussed their increased knowledge in topics including STI transmission, the types of contraception available, and skills for how to correctly use condoms and other forms of protection. At the same time, there was also an increased awareness and knowledge of societal practices and terminology that lead to stigma and systems of oppression of individuals in the sexual minority or who have an infection like HIV/AIDS. The technical and systemic knowledge that respondents gained from participating in the Sex Squad increased their self-efficacy to communicate and share sexual health knowledge with their peers and social networks.

Communication around sexual health topics was also an important outcome of participating in the Sex Squad. Respondents had increased levels of comfort in discussing



sexual health topics. This resulted from a combination of increased knowledge and practice, which led to improved self-efficacy in communicating. The Sex Squad provided respondents with important sexual health knowledge, while also serving as a safe space to practice engaging in conversations around topics that are not generally considered acceptable to discuss openly. Theater was an important part of this practice, and the creativity of performing helped to empower participants. This practice then translated into their relationships with their sexual partners and friends and acquaintances. These individuals turned to the Sex Squad participants for sexual health information and advice. Respondents observed their peers in the Sex Squad engaging with topics of sexual health through theater, which created a sense of empowerment and enabled them to serve as a resource for others. Observational learning as part of the Sex Squad led to increased self-efficacy of respondent's skills as peer educators and improved their ability and confidence as performers.

Changes in risk-taking behavior as a direct result of the Sex Squad were difficult to capture in the data. However, the characterization of risk was very consistent across respondents, and it included behaviors that put an individual at risk of STIs or pregnancy. In addition to the physical risks discussed by participants, there was also an important distinction of the emotional risks that go along with certain sexual decisions. The Sex Squad made participants aware of the importance of a positive self-concept in sexual decisions and of the role that alcohol plays in increasing sexual risk. Another dimension of risk emerged that related to the consequences resulting from certain actions and the feelings of responsibility relating to these potential consequences. However, an increased knowledge of risk did not always translate to changes in participant's decisions regarding the risks in which they chose to engage. The Sex Squad allowed participants to reflect on their understanding of risk and identify the types of risks they were willing to take in their sexual

lives. Respondents identified a “spectrum” of risk. There was a shift to place a higher value on the protection of one’s health and well-being than they had before participating in the Sex Squad. This resulted in part from hearing their peer’s experiences. The observational learning that resulted from participation in the Sex Squad enabled respondents to reflect on their own outcome expectations with regards to engaging in certain risk behaviors.

Finally, Sex Squad had a strong impact on how respondents conceptualized sexual health. They saw sexual health as encompassing physical, mental, and emotional well-being. The way individuals perceived themselves impacted how they perceived and interacted with the world around them when it came to sexual decisions. A positive self-concept allowed for respondents to engage in empowered sexual relationships with open communication. Exposure to a broader perspective on sexual health topics also facilitated positive sexual decision making that minimized risk. The Sex Squad provided participants with an environment where they could come to their own conclusions regarding these perspectives and then make informed decisions in their sex lives about the types of risk to which they exposed themselves.

### **Social Cognitive Theory as a Theoretical Framework**

Social cognitive theory is a behavioral change theory, and the data from the interviews mapped relatively well to the constructs identified in **Table 1**. The most important constructs to note from this analysis are self-efficacy, outcome expectations, and observational learning. Self-efficacy was an important factor in communicating topical sexual health knowledge as a peer educator, and in making decisions about sexual behavior with sexual partners. The Sex Squad provided participants with an environment in which they could develop self-efficacy around sexual health communication through increased sexual health knowledge and through practice engaging in conversations around sexual health topics.

Observational learning, or learning how to perform certain behaviors as a result of peer modeling, was another recurring theme. Specifically, participants observed fellow Sex Squad members' comfort in engaging on topics related to sexual health, and they wanted to emulate that same level of comfort in talking about sexual health. Observational learning also manifested itself in the theater-based skills exhibited by certain Sex Squad members. Participants were learning about sexual health at the same time they were making art and being exposed to the possibilities associated with theater and sexual health activism. Students co-learned with their peers as well as with their instructors to create artistic pieces that reflected sexual health messages. All of the participants had a different level of experience with theater prior to their participation in the Sex Squad, and rehearsals and performances were prime opportunities to learn from each other. Finally, the Sex Squad performances for the high school students provided a third dimension of observational learning. The Sex Squad members were close in age to the high school students; therefore, they were relatable but still garnered a level of respect where they could engage with students on sexual health topics.

### **Limitations**

The most significant limitation of this study is that the findings cannot be generalized to a wider population of college students. The individuals interviewed had previously participated in the AMP! Sex Squad, which is a sexual health intervention only being implemented at three universities in the United States (UCLA, UNC and Emory). Therefore, the findings of this study are only applicable to individuals who have participated in the Sex Squad. However, when thinking about the disproportionate burden of HIV and AIDs among college students, peer-based arts interventions could be an important opportunity for intervention to impact this age group if they can be rigorously evaluated and shown to effective.

Another limitation is that only eight individuals were interviewed, so saturation may not have been reached. However, the purpose of this study was to understand the role of participation in a specific peer-based sexual health intervention on college students' sexual health knowledge, communication and risk taking behaviors. Across the three colleges in which the AMP! Sex Squad has been implemented, there are only about 39 individuals who have participated as peer educators in the intervention. Therefore, 20.5% of possible respondents who met the inclusion criteria were sampled and interviewed. The sample also included only one male participant. If there were any differences in experiences between sexes, then the results are skewed towards the female perspective. Despite these limitations, recurring themes did emerge from the data that allowed conclusions to be drawn from this sample.

There was also an unequal distribution of participants from the different universities. UCLA and UNC had equal representation, but there was only one participant from Emory. This is a direct result of the Sex Squad being founded out of the Art and Global Health Center at UCLA, and only expanded to UNC and Emory in 2013. This made it difficult to identify differences in experiences between site, specifically with regards to sexual health knowledge, communication skills, and decisions about sexual risk. While each site went through similar curriculums, there were differences in facilitators and in how the intervention was disseminated in local high schools.

Finally, since this research was based on qualitative data, the changes described by participants cannot be attributed directly to the Sex Squad. There may have been other factors outside of the Sex Squad that influenced participants' sexual health knowledge, communication, and risk taking behaviors, including other sexual health interventions or their peers. However, participants repeatedly cited the Sex Squad as a place where they

gained knowledge and improved their communication skills, which is an encouraging finding from this study.

### **Public Health Significance and Areas for Future Research**

This study provides a foundation for future inquiry into the impact of theater-based interventions on those individuals performing and delivering the intervention. This has particular significance for public health when thinking about the design and implementation of arts-based interventions, and it suggests a strong need for theory driven design, implementation and evaluation. Having a theory driven approach to arts-based interventions that addresses both the audience and those delivering the intervention will facilitate more comprehensive evaluation that can be contextualized in relation to behavior change. Behavioral theory maps well onto the impact of participation in a peer-based arts intervention on the performers, and it is important that the role of creativity and performance is further explored to understand the role it plays, particularly in sexual health communication and decisions about risk behaviors.

Youth between the ages of 18 and 24 account for a disproportionate number of HIV cases in the United States. Based on the findings from this study, peer-based arts interventions are an effective means to deliver sexual health and HIV knowledge and build participants' self-efficacy around communication about sexual health. Specifically, peer-based arts interventions are an opportunity to intervene on sexual health knowledge, communication, and risk-taking behavior among college students, who fall in the 18 to 24 age range. In 2011, 42% of 18 to 24 year olds were enrolled in college (U.S. Department of Education, National Center for Education Statistics, 2013). Since nearly 50% of individuals between the ages of 18 and 24 are enrolled in college, an intervention such as the *AMP! Sex Squad*, which is implemented on college campuses, is a promising strategy to reduce the prevalence of HIV and other STIs among individuals 18 to 24. Building on the findings from

this qualitative study, a prospective cohort study could be conducted in order to more fully evaluate the impact of a peer-based arts intervention on reducing the rates of HIV and STIs on college students. If Sex Squad participants were followed prospectively and asked to report on indicators such as HIV status, STI infections, and pregnancy, then the data could be compared to their peers who had not participated in the Sex Squad.

The reach of a peer-based arts intervention is also wider than simply the college students delivering the intervention and the high school students consuming those messages. Based on the findings from this qualitative study, the college student peer educators served as resources for their peers (friends, family, partners, etc.), so the knowledge and skills they gained from participating in the Sex Squad reached individuals in their social networks. The knowledge and skills gained in the Squad are applicable in participant's everyday lives, and the Sex Squad provided an environment where they developed self-efficacy to share this knowledge and skills. Further research is needed to fully evaluate this informal transfer of knowledge between Sex Squad participants and their social networks.

## Appendices

### Appendix I: In-Depth Interview Guide

#### Demographic Questions

- What is your age?
- What is your race?
- What college do you attend?
- What is your major?
- What year of school have you completed?
- Where did you grow up?
- How many years were you part of the Sex Squad?
  
- How did you get started in theater?
  - Describe your previous experiences with theater.
- Describe your previous experience with community engagement programs (health education or otherwise).
- Why did you decide to participate in the Sex Squad?
  - What did you hope to gain by participating in the Sex Squad?

#### Sexual Health Knowledge

- Where do you get your information about sexual health?
- What have you learned about sexual health as a result of participating in the Sex Squad?
- Describe the role your participation in the Sex Squad has played in your knowledge regarding sexual health.
- How have your fellow Sex Squad members impacted your sexual health knowledge?
- How have you applied this knowledge in your own life? In your relationships?
  - Can you provide a concrete example?

#### Sexual Health Communication

- Who do you talk to about sex and issues relating to sexual health?
- Describe a time when you discussed sexual health (contraception, STIs, etc.) with a partner.
- How has your communication about sexual health changed as a result of being a member of the Sex Squad?
- How has your role as a peer educator with the Sex Squad impacted how you communicate about sexual health?

#### Sexual Risk Taking Behavior

- What do you perceive to be risky sexual behaviors?
  - Compare before and after being part of the Sex Squad
- Tell me about a time that you engaged in risky sexual behavior.
  - OR thought about engaging in risky sexual behavior OR decided not to engage in risky sexual behavior
- How do you decide about the types of sexual behaviors you engage in?
- Describe the role your participation in the Sex Squad has played in your decisions regarding sexual health.

- How have your fellow the Sex Squad peer educators impacted the decisions you make regarding your sexual health?

**Social Context**

- What sorts of messages regarding sexual health did you receive in while growing up? In high school?
  - What sorts of messages regarding sexual health did you receive from your parents/guardians?
  - First think about the different communities you have been a part of—
    - How does the community you grew up in perceive sexual health? HIV/AIDS?
  - Explain how your community impacted your sexual decision-making.
  - Can you describe your experiences with sexual health education before participating in the Sex Squad?
  - How do you conceptualize sexual health education?
- 
- What are some of your most memorable moments of participating in the Sex Squad?
  - What were some of the biggest challenges you faced as a result of participating in the Sex Squad?
  - What have you learned about yourself as a result of participating in the Sex Squad?
  - What would you tell someone who was interested in participating in the Sex Squad?



## Appendix II: Coding Tree

\*\* Indicates codes that were added during the coding process

1. **Knowledge**
  - 1.1. Sources
  - 1.2. Received
    - 1.2.1.\*\*Technical
    - 1.2.2.\*\*Systems
  - 1.3. Shared
  - 1.4. Applied
2. **Communication**
  - 2.1. Formal
    - 2.1.1.Peer educator
  - 2.2. Informal
    - 2.2.1.Partner
    - 2.2.2.Family
    - 2.2.3.Friends
  - 2.3. Topic
  - 2.4. Changes
3. **Risk Behavior**
  - 3.1. Perception of risk
    - 3.1.1.\*\*Physical
    - 3.1.2.\*\*Emotional
  - 3.2. Decisions about risk
  - 3.3. Role of Sex Squad
  - 3.4. Role of Sex Squad Peers
4. **Influence of Social Context**
  - 4.1. Family
  - 4.2. Friends
  - 4.3. Community
  - 4.4. Religion
  - 4.5. School
  - 4.6. \*\*Culture
  - 4.7. \*\*Society
  - 4.8. \*\*Fear
  - 4.9. \*\*Inaccuracy/Myths
5. **Social Cognitive Theory** (McAlister, Perry & Parcel, 2008)
  - 5.1. Reciprocal determinism
  - 5.2. Outcome expectations
  - 5.3. Self-efficacy
  - 5.4. Observational learning
  - 5.5. Self-regulation
6. **Sex Squad Experience**
  - 6.1. Outlet
  - 6.2. Novel approach
    - 6.2.1.Peer education
    - 6.2.2.Theater
  - 6.3. Advocacy
  - 6.4. Support
    - 6.4.1.\*\*Sharing

6.4.2.\*\*Acceptance

**7. Conceptualization of Sexual Health & Sexual Health Education**

- 7.1. \*\*Fluidity
  - 7.2. \*\*Systemic
  - 7.3. \*\*Personalized
  - 7.4. Humanizing
  - 7.5. Disparity
- 8. Personal Reflections and Lessons Learned**
- 8.1. \*\*Personal growth
  - 8.2. \*\*Self-Awareness
  - 8.3. \*\*Authenticity
  - 8.4. Shame/Stigma
  - 8.5. \*\*Discomfort
  - 8.6. Uncertainty
  - 8.7. Empowerment/Confidence
  - 8.8. Disconnect/Gaps
  - 8.9. Performance

### Appendix III: Codebook

Code	Definition
<b><i>Knowledge</i></b>	
Sources	where and from whom participants gained knowledge about sexual health
Received	knowledge gained as a result of participating in the Sex Squad
Technical	contraception, STIs, HIV, abstinence, etc.
Systems	relationships, gender roles, etc.
Shared	knowledge that Sex Squad participants shared with others
Applied	knowledge gained in Sex Squad that participants have utilized in their own lives and/or relationships
<b><i>Communication</i></b>	
Formal	experiences of being in a formal peer educator capacity
Peer educator	impact of being a peer educator on communication skills, style and/or how participants share sexual health knowledge
Informal	communication about sexual health outside of a formal peer educator role
Partner	
Family	
Friends	
Topic	the types of sexual health information that Sex Squad participants talk about
Changes	comparisons of communication before and after participating in the Sex Squad
<b><i>Risk Behavior</i></b>	
Perception of risk	how participants define what they consider to be sexual risk taking behavior
Physical	references to risks that affect physical health (STIs, drinking, etc.)
Emotional	references to risks that affect the mental or emotional health (consent, etc.)
Decisions about risk	how participants decide about the types of risky sexual behaviors they engage in
Role of Sex Squad	references to how participation in the Sex Squad has played a role in sexual decision making
Role of Sex Squad peers	references to how peers in the Sex Squad have played a role in sexual decision making
<b><i>Influence of Social Context</i></b>	
Family	references to the role of family members, including parents, siblings, aunts, uncles, cousins, etc. in participant's sexual health development
Friends	references to the role of friends in participant's sexual health development
Community	references to different communities that the participant has been a part of and their role in participant's sexual health development
Religion	references to the role of religion in participant's sexual health development
School	references to participant's experiences with sexual health and sexual health education in school

Culture	references to how culture has influenced participant's experiences of sexual health
Society	references to how society (media, peer pressure, etc.) perceives sexual health and how that has influenced participants
<b><i>Social Cognitive Theory</i></b>	
Reciprocal determinism	environmental factors that support behavior change
Outcome expectations	individuals weigh the likelihood of various outcomes that might result from a particular behavior
Self-efficacy	individuals feel the capacity to perform particular behaviors
Observational learning	individuals learn to perform behaviors as a result of media or peer modeling
Self-regulation	development of concrete skills to regulate behavior
<b><i>Sex Squad Experience</i></b>	
Outlet	reference to how Sex Squad provides an artistic and/or personal outlet for self-expression
Novel Approach	reference to the use of theater as an avenue for sexual health education
Peer education	reference to the value of peer education as a method for sexual health education
Theater	reference to theater as a method for sexual health education
Advocacy	Sex Squad as an opportunity to speak out about issues relating to sexual health
Support	reference to the supportive environment facilitated by the Sex Squad
Sharing	reference to the Sex Squad as a place where participants could share their experiences and stories
Acceptance	reference to the Sex Squad being an environment where participants felt they were accepted and valued
<b><i>Conceptualization of Sexual Health and Sexual Health Education</i></b>	
Fluidity	sexual health is not black and white
Systemic	references to sexual health issues stemming from systems and institutional structures (masculinity, misogyny, etc.)
Personalized	references to sexual health as a personal journey or experience
Humanizing	reference to experiences in the Sex Squad that gave a face to sexual health issues such as HIV, STIs, etc.
Disparity	differences in access to sexual health knowledge and exposure to sexual health education
<b><i>Personal Reflections and Lessons Learned</i></b>	
Personal growth	references to instances where participants saw changes within themselves as a result of the Sex Squad
Self-awareness	participant's reference to an increased awareness around their own knowledge, communication skills/style, and behaviors
Authenticity	truthful and open about who you are personally and with sexual health topics
Shame	references to feelings of shame surrounding sexuality and sexual health, both personally and in society
Discomfort	references to participants feeling uncomfortable with sexual health issues
Fear	

Uncertainty	reference to times when participants were uncertain about the role of the Sex Squad
Empowerment/ Confidence	reference to how the Sex Squad left participants with the feeling of being able to make changes in their life or a difference in society
Disconnect/Gaps	participants' identification of areas of sexual health knowledge, communication and resources that were lacking in their experiences
Performance	experiences identified by participants where they grew as performers

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