SEXUAL HEALTH COMMUNICATION, PEER NETWORKS,
& SEXUAL HEALTH EDUCATION

A Dissertation in
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by

Andrew William Porter

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The dissertation of Andrew W. Porter was reviewed and approved* by the following:

Jennifer E. Graham-Engeland  
Associate Professor of Biobehavioral Health  
Dissertation Adviser  
Chair of Committee

Lori A. Francis  
Associate Professor of Biobehavioral Health

Edgar P. Yoder  
Professor of Extension Education

Steven A. Branstetter  
Assistant Professor of Biobehavioral Health

Robert J. Turrisi  
Professor of Biobehavioral Health  
Graduate Program Chair

*Signatures are on file in the Graduate School.
ABSTRACT

The majority of American teenagers become sexually active while they are still developing physically, emotionally, and intellectually. This leaves them ill-equipped to handle the potential negative consequences of unprotected sex. Adolescents report that they use their peers as their primary source for sexual health information. However, peer sexual health communication has not been researched extensively. This study examines three aspects of peer sexual health communication using a combination of quantitative and qualitative methods. The data come from a weekly survey about peer sexual health communication that was administered in 2009 to students taking a sexual health course. Using these data, this study examines the characteristics of students who are more likely to share sexual health information with their peers, how students describe the contextual factors surrounding peer sexual health communication, and the effects of a sexual health course on peer sexual health communication. In the study, female students shared sexual health information more frequently than men. Peer sexual health discussions were largely triggered by the life events of students or those close to them. Students drew upon materials from the sexual health course as they provided advice and emotional support to their peers. At times, this support turned into assistance in seeking medical testing and treatment. There were some gender-based differences in perceptions of safer sex and menstruation that are likely due to personal relevance. Over the course of the semester, the frequency with which students had sexual health discussions with their peers decreased, contrary to expectations. However, there were some short-term increased after novel topics were introduced. In addition to these findings, implications for teaching practice and areas for additional research are discussed.
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Chapter 1

Introduction and Background: Sexual Health, Peer Networks, and Sexual Health Education Programs

Before they turn 18, the majority of people in the United States become sexually active, with 60% of males and 64% of females having vaginal intercourse and/or oral sex (Mosher, Chandra, & Jones, 2005). During this time, they are still going through intellectual, emotional, and physical development and are ill-equipped to handle potential consequences such as unintended pregnancy, sexually transmissible infections (STI’s), and regretted sex. In turn, these consequences can lead to serious long-term health, emotional, and economic problems (Bissell, 2000; Centers for Disease Control and Prevention, 2012; Jutte et al., 2010; Oswalt, Kenzie, & Koob, 2005).

Although adolescents have access to sexual health information from schools, parents, health professionals, and public health agencies, adolescents most often get their sexual information from their peers, such as friends, neighbors, and classmates (Bleakley, Hennessy, Fishbein, & Jordan, 2009; Martin & Mak, 2013). While information from peers is trusted, it is not always reliable (Guzzo & Hayford, 2012; Kaiser Family Foundation, 2003). Despite the importance of information from peers, little is known about how sexual health information is communicated in peer networks.

The overarching goal of this dissertation is to illuminate the discussion of sexual health information in peer networks. In this dissertation, I examine how students describe their experience of discussing sexual health information, what the characteristics are of those who talk more or less about sexual health topics, and what topics they are talking about. I also examine the effects of a course on sexual health on peer sexual health communication patterns. Throughout, I weave in the examination of a theory that certain
students may serve as super-peers, or students who are significantly more likely to have sexual health discussions than their peers. I investigate the super-peer concept in two main ways: first, by determining characteristics of those who talk the most, and second by determining whether certain individuals change their patterns of discussion more in response to a course on sexual health.

Figure 1-1 illustrates the three focal points of this dissertation and will serve as a map as I develop specific research questions in this chapter. One focal point, “characteristics of super-peers”, is an examination of the demographic characteristics of students who are sharing statistically more sexual health information with their peers than students from other backgrounds. Another, “the nature of peer sexual health communication”, is focused on how students describe their peer sexual health discussions; this focal point will provide insights into what triggers those discussions, whether students referred to the course materials or activities, the specifics of what was discussed, and other contextual factors surrounding peer sexual health discussions. The third focal point of this dissertation, “course effects on peer sexual health communication” is the effects of a sexual health course on peer sexual health communication over time. The data were drawn from survey data that were collected from the participants in a sexual health education course at a large public university. The results of this research have implications for government agencies, health providers, and educational institutions that are concerned with adolescents and their healthy futures.
Figure 1-1: Three research foci to explore peer sexual health communication and its development throughout a semester as students take a sexual health course.

**Potential Consequences of Adolescent Sex**

Although the rate of births dropped to 29.4 per 1000 adolescents in 2012, it is still higher in the United States than in most developed countries (Hamilton, Martin, & Ventura, 2013). In comparison to adults, teens have less healthy pregnancies due to factors such as smoking, low pregnancy weight gain, and a lack of prenatal care, which result in a greater likelihood of lower birth weight babies, hospitalization, chronic health
problems, and infant mortality (Bissell, 2000; Chen et al., 2007; Jutte et al., 2010). In addition, the rate of STI’s such as HIV, gonorrhea, chlamydia, herpes, and syphilis have remained the same or increased in recent years, especially in African Americans and men who have sex with men (MSM) (Centers for Disease Control and Prevention, 2012).

In addition to physical health consequences and unintended pregnancy, psychosocial outcomes of early sex can also be negative. In one study, 71.9% of sexually active college-aged students had regretted at least one of their sexual encounters for a variety of reasons, including sex being inconsistent with their morals, the involvement of alcohol, wanting different things than or feeling pressured by their sexual partner, and not using a condom (Oswalt, Kenzie, & Koob, 2005). Other research examining the attitudes of adolescents has confirmed that when adolescents have sex that goes against a personal moral code, they feel regret, distress, and fear disapproval from peers, family, and religious leaders (e.g., Christopher & Cate, 1984; Herold & Goodwin, 1981; Paradise, Cote, Minsky, Lourenco, & Howland, 2001; Sprecher & Regan, 1996).

Unprotected sex is also associated with significant risk of contracting an STI, an event that can have a profound long-term psychological impact. A study of adults who were diagnosed with a herpes or HPV reported feeling depressed, undesirable, “dirty, tainted, unclean, or less of a person as a result of having an STI” (p. 866, Newton & McCabe, 2008). Furthermore, some avoided or broke off relationships due to anxiety about disclosing their status, fear of discovery and rejection, and fear of passing on the infection to partners. Men with HIV/AIDS reported feeling intense fear, hopelessness, and horror when diagnosed, followed by rumination and intrusive thoughts about their illness (Nightingale, Sher, & Hansen, 2010). HIV-positive people have higher rates of
depression, loneliness, feelings of isolation, and lower self-esteem, which can further compromise their immune systems and decrease adherence to treatment programs (Dowshen, Binns, & Garofalo, 2009; Vanable, Carey, Blair, & Littlewood, 2006).

Teen mothers and their children also experience negative socioeconomic outcomes. Nationally, the high school graduation rate for girls is 49% for teen mothers compared to 89% for non-teen mothers (Perper, Peterson, & Manlove, 2010). Teen mothers are more likely to come from families with lowest quartile incomes than non-teen mothers, which may partly explain their lower graduation rates. However, when this was factored into an analysis of educational outcomes, teen mothers were still more than twice as likely to drop out of high school when compared to non-mother peers of a similar socioeconomic background (Levine & Painter, 2003). In addition, teen mothers who graduated high school were 30% less likely to attend college than the non-mother comparison group and those who didn’t graduate were 22% less likely to get their GED (Levine & Painter, 2003; Perper, Peterson, & Manlove, 2010). One large Canadian study of the children of teen mothers (N = 32,179) found that they are significantly less likely to graduate from high school, with 65% failing to graduate within six years of entering ninth grade compared to 24% of children from non-teen mothers (Jutte et al., 2010). These children of teen mothers were also seven times more likely to be taken into foster care, four times more likely to need income assistance, and six times more likely to become teen mothers themselves (Jutte et al., 2010). These results indicate that teen pregnancy can create a cycle of poverty that spans multiple generations.
Sources of Sexual Health Information

Despite the efforts of parents and educators, adolescents are most likely to go to their peers for sexual information regardless of their age, gender, or ethnicity (Bleakley, Hennessy, Fishbein, & Jordan, 2009; Martin & Mak, 2013). The reliability of information from peers is questionable. Myths and misconceptions about pregnancy, contraceptive effectiveness, side effects, symptoms of STIs, risk factors, and transmission of STIs are common (Gillam, Warden, Goldstein, & Tapia, 2004; Guzzo & Hayford, 2012; Kaiser Family Foundation, 2003; Yee & Simon, 2010). One of the reasons why young adults may rely so heavily on peer knowledge/communication is that they tend to overrate their peers’ sexual knowledge and perceive their peers’ sexual activity to be similar to their own (Brandhorst, Ferguson, Sebby, & Weeks, 2012). This is important because the source of sexual health information appears to have a strong influence on the sexual behavior of adolescents. For example, a study of 14-16 year old Black and Hispanic boys and girls found that sexual activity and use of condoms was strongly influenced by their perceptions of their peers’ sexual activity and condom use (Whitaker & Miller, 2000).

Moreover, early discussions with parents about sex seem to delay initiation of sexual activity compared to adolescents who only discuss sexual information with their friends (Bleakley, Hennessy, Fishbein, & Jordan, 2009).

Today’s youth are increasingly relying on the media for sexual health information (Sprecher, Harris, & Meyers, 2008). Adolescents are finding sexual health information on the Internet and seeking advice through social networks (Jones & Biddlecom, 2011; Selkie, Benson, & Moreno, 2011). If, how, and why they are using mobile and online technologies to share sexual health information with peers is not yet understood.
Understanding the initiation and purpose of peer communication as well as the modes of communication could be important in designing future sexual health programs. Such knowledge could help educators make course materials that are more relevant to students and more easily sharable with their peers.

**Super-Peer Influence within Peer Communication Networks**

Historically, the “super-peer” concept has been used primarily to refer to the way that messages from mass media – primarily television and movies – can be perceived as a substitute peer and become a source for information about sex, birth control, pregnancy, and STIs (Brown, Halpern, & L’Engle, 2004). Use of media in this way is especially important when there is a void in knowledge, such as is the case for girls who begin puberty earlier than their peers (Brown, Halpern, & L’Engle, 2004). However, it may be useful to apply a broader conceptualization of the super-peer construct to research on sexual health communication. We know that peers are the most commonly reported source for sexual health information. We also know that there are certain demographic differences in the frequency of sexual health discussions. Within a given student population, there may be a group of students who are more inclined to share sexual health information than their peers. In this dissertation, I will use the term *super-peers* to refer to students who are statistically more likely to share sexual health information with their peers. Figure 1-2 illustrates a peer network. In this diagram, one person is acting as a super-peer by sharing more sexual health information with her siblings, partner, roommate, classmates, and friends from high school. Thicker lines between the super-peer and her peers represent the super-peer’s higher level of sharing sexual health information.
An overarching goal of this dissertation is to seek evidence for the existence of super-peers in the context of a class on sexual health education: who are they, how do they talk with their peers, and what do they talk about. With this knowledge, we may be able to modify sexual health education so influential super-peers are more likely to disseminate reliable information throughout their peer network. It may also be possible to structure sexual health courses in such a way that some students significantly increase the amount of sexual health information with their peers, thereby becoming super-peers.

Figure 1-3 illustrates a sexual health course providing additional sexual health information to a super-peer, which is then disseminated throughout the super-peer’s network. In this diagram, the arrows between the super-peer and her peers are thicker.
than in the previous diagram, representing an increased transfer of accurate sexual health information from the super-peer to her peer network.

![Diagram of sexual health communication network](image)

Figure 1-3: Potential dissemination of sexual health information from a sexual health course to a super-peer’s network.

**Demographic Differences in Sexual Health Communication**

There is some evidence that sexual health communication varies based on demographic characteristics. These variations include frequency of communication, sources of information, how much information from a source is trusted, the mode of communication, and the tone of communication.

**Gender Differences**

A study of more than 6000 U.S. university students under the age of 24 that was conducted between 1990 and 2006 examined the relationship between demographic
characteristics, the sources of sexual health information, and frequency with which sexual health topics were discussed with those sources (Sprecher, Harris, & Meyers, 2008). Women were significantly \( p < .001 \) more likely than men to indicate that they received sexual health information from their mothers, siblings, same-sex friends, dating partners, physicians, educators, teachers, and reading on their own; the only source that was significantly higher for the men in this study was receiving information from their fathers. This is not surprising considering that women are more comfortable talking about sexual health than men and have been found to discuss most aspects of sex and sexual health more than men (Lefkowitz, Boone, & Shearer, 2003; Rittenour & Booth-Butterfield, 2006).

Another study of peer communication showed one major difference between men and women in discussion of sexual health topics: there was a significant \( p < .001 \) difference in discussions of contraception, with 94% of women but only 55% of men reporting that they discussed this topic with their peers (Rittenour & Booth-Butterfield, 2006). The same study showed that there were no gender-based differences in discussions of condoms, AIDS, and other STDs. A study of regretted sex showed no significant differences regarding how frequently men or women had regretted sex (Oswalt, Kenzie, & Koob, 2005).

**Race/Ethnicity Differences**

In addition to an analysis of gender, Sprecher and colleagues (Sprecher, Harris, & Meyers, 2008) provided an analysis of sources of sexual health information broken down within the three largest racial groups of the students in their study: Black (9%), Hispanic (2%), White (89%). Black participants reported receiving more sexual education from
their parents, professionals, the media, and their own readings compared to White participants \((p < .001)\). White participants were more likely to receive education from their peers and discuss sexual topics with peers more often than Black participants \((p < .001)\). However, in all three racial groups, peers and the media were the first and second highest sources of sex education.

The source and frequency of discussions may be less important than the level of trust in and the quality of information from those sources. Yee and Simon (2010) interviewed a group of young low-income African American and Latina women who had recently given birth. They found that the women in this group trusted contraceptive information from friends, mothers, and sisters more than they trusted information from clinicians. When asked, participants said that doctors are able to provide statistics about the safety and danger of contraceptive methods, but friends and family could tell concrete stories of what happened to them or someone they know (Yee & Simon, 2010). Examples provided by this group include stories about birth control failure, infections, rashes, bleeding, discomfort during intercourse, weight gain, nerve damage, and even death.

Another examination of beliefs about the effectiveness of contraceptive methods found among 1800 men and women aged 18 to 29, 51.8% of non-Hispanic Black subjects and 53.1% of foreign-born Hispanic subjects believed the statement “It doesn’t matter whether you use birth control or not; when it is your time to get pregnant, it will happen” (Guzzo & Hayford, 2012, p. 161).

**Sexual Orientation Differences**

Lesbian, gay, and bisexual (LGB) youth often go through a period where they hide their sexual orientation from those around them. As a result, they often lack relevant
sexual health education from typical sources such as school, parents, and siblings since those sources assume that these young people are straight and of a gender that matches their outward presentation (Santelli et al., 2006; Savin-Williams, 2001; for a review see Rose & Friedman, 2012). Because of this, LGB youth often turn to Internet sites and online social networks to seek sexual health information, find friends, and look for partners (Hillier & Harrison, 2007). Internet searches by LGB youth focus largely on STI prevention, symptoms, and testing (Magee, Bigelow, DeHaan, & Mustanski, 2012). Further, in comparison with other populations, pregnancy is not a concern for those who are interested in same-sex intimacy. In short, the sexual health needs, information sources, and communication patterns appear to be different for LGB youth compared to their heterosexual counterparts.

**Age Differences**

No previous study has precisely examined the relationship between age and frequency or level of comfort with discussing sexual health information. However, we know that sexual activity increases throughout adolescence into adulthood (Mosher, Chandra, & Jones, 2005). We also know that incidents of regretted sex are often associated with the consumption of alcohol (Oswalt, Kenzie, & Koob, 2005), which is more easily obtainable by students over the age of 21. Therefore, there may be differences in sexual health communication based on age.

In summary, there have been studies that have examined demographic differences in sexual health information. These studies indicate that adolescents use their peers as the primary source of sexual health information. There is also evidence that sexual health information from peers may be trusted more than sexual health information from health
professionals for some groups. This presents a challenge to sexual health educators who are attempting to change the sexual health behaviors of high-risk groups. Now that we know that adolescents turn to their peers for sexual health information, additional research is needed to understand how peer sexual health communication occurs.

**Mode and Tone of Sexual Health Communication**

Very little research has examined how peer sexual health communication occurs and how adolescents feel about it (Lefkowitz, Boone, & Shearer, 2003). One study in this realm asked 22 young (16 to 22 year old) Australians to describe how they feel about using technology to find or share sexual health information (Evers, Albury, Byron, & Crawford, 2013). The participants reported that when they are looking for sexual health information online, they prefer to use a search engine like Google to find the information instead of asking others for advice through social media web sites. Their primary reasons were concerns about privacy, stigma around sexual health, and bullying from peers. They were willing to use information from social media networks like YouTube because those videos can be searched and viewed anonymously. However, they reported that they were likely to share humorous ads, videos, and web sites about sexual health through social media “because the sharing does not directly reflect something personal about the sender and receiver except for a shared appreciation of humor” (p. 268). In the same study, the opposite effect appeared to be present with content that used scare tactics. The participants were less likely to share that type of content with their peers because it would seem like they were lecturing.
There is some evidence that sharing sexual health information through social media can change peers’ behaviors, at least in the short term. An experimental study of 1,578 young (18 to 24 year old) Americans examined the impact of condom promotion messages shared through Facebook and showed that participants who saw these messages were more likely to have used condoms during their last sexual encounter than those in a control group who did not see the messages (Bull et al, 2012). This effect was present two months after the intervention began, but faded when the participants were surveyed at the six-month mark, at which point there was no significant difference between the control and intervention groups.

A study of the use of text messaging on mobile phones showed that 65% of a group of 20 young (18 to 25 year old) African American participants had used texting to request or negotiate condom use (Broadus & Dickson-Gomez, 2013). Some reported feeling just as comfortable discussing condoms face to face, on the phone, or through texting. Others preferred texting to request or negotiate condoms because it made them feel less nervous, was more discreet, and was less likely to be interrupted by hanging up the phone or changing the subject. This study focused specifically on the use of texting as a communication mechanism due to a higher use of texting and other phone-based communication mechanisms such as Twitter in the African American community (Broadus & Dickson-Gomez, 2013; Lenhart, 2010; Smith, 2014).

Despite the prior work described above, the current understanding of the way in which young adults use different modes of communication is not fully understood. While one study (Broadus & Dickson-Gomez, 2013) examined the behavior of a small group of African Americans, it did not include a comparison group from other racial/ethnic
backgrounds. In addition, these studies report that young adults are making choices in how they communicate based on their feelings about privacy, nervousness, and the place of humor within their peer network. Having a better sense of how demographic factors relate to the mode of communication used and the positive or negative tone of the communication may help elucidate the communication behavior of super-peers. This knowledge would be useful to health educators because they would be able to design materials and activities compatible with the modes of communication chosen by super-peers.

**Purpose of Peer Sexual Health Communication**

Previous literature has focused on issues like sources of sexual health information, frequency of sexual health communication, demographic differences, and mode of communication. However, no study has closely examined the contextual factors surrounding these discussions. We know that women discuss sexual health more frequently with their peers than men (Sprecher, Harris, & Meyers, 2008), but we do not know where these discussions happen, what triggers them, and nuances about the topics discussed. For example, survey respondents may indicate that they have had a discussion with peers about condoms, even though one respondent talked about a new type of condom, another respondent talked about a broken condom incident, and a third respondent talked about switching from condoms to hormonal birth control. These subtleties in how important topics like condoms are discussed are important for sexual health professionals to understand.
Peer communication may also result from sexual health programs. Comprehensive sexual health education programs have a positive effect on the sexual health of adolescents. Students who go through comprehensive sexual health education programs are less likely to become pregnant, less likely to contract an STI, and more likely to delay the initiation of sexual activity than students who went through abstinence-only programs or had no sexual health education (Waxman, 2004). What we don’t know is whether such programs change factors such as the frequency of sexual health discussions. It would also be interesting to know whether the tone of peer sexual health discussions becomes more positive as students progress through a sexual health course. In addition, the topics discussed in a sexual health course may influence students’ communication patterns. If this were the case, we would expect to see students discuss health topics with their peers more frequently after those topics are covered in the course. Indeed, students who complete a good sexual health education course may be prompted to become a super-peer within their social network. If the sexual health course was successful in giving students better sexual health information, improving their communication skills, and making them more comfortable in discussing human sexuality, then these students may play an important part in improving the sexual health of their peers. In this sense, super-peers may do more than share sexual health information. They may also provide emotional support and encourage behaviors in others that promote sexual health. To my knowledge, past research has not examined the emergence of super-peers following exposure to a sexual health education course.
Research Questions

The overarching goal of the present research was to examine the relationship between a sexual health education course and sexual information discussed in peer networks as well as to provide new and needed information about the dissemination of sexual health information among peers. The data come from a survey that was designed to provide information to improve a sexual health course delivered at a large public university. Students were asked to fill out a survey each week and were asked questions related to their discussions of sexual health information with their peers. The results provide both quantitative and qualitative information about the frequency, topics, modes, and initiating factors of these discussions. Specifically, this proposal would address eight research questions, detailed below.

RQ1. In what ways are college students’ demographic characteristics associated with the frequency of sexual health communication?

RQ2. In what ways are college students’ demographic characteristics associated with the type of sexual health topics they discussed with their peers?

RQ3. In what ways are college students’ demographic characteristics associated with the modes (e.g., in person vs. via technology) they use to discuss sexual health information with their peers?

RQ4. In what ways are college students’ demographic characteristics associated with the positive or negative tone of college students’ sexual health communication with their peers?

RQ5. How do students describe their experience with peer sexual health communication?
RQ6. Do college students have more frequent discussions of sexual health as they progress through a course on human sexuality?

RQ7. To what extent are the topics of college students’ discussions of sexual health influenced by the sequence of topics in a course on human sexuality?

RQ8. Does the tone of college students’ discussions of sexual health become more positive as they progress through a course on human sexuality?

Each of these research questions is described further below along with hypotheses regarding the expected results. Where possible, these hypotheses were drawn from existing research and/or my own understanding of the student population and culture at this university.

**Characteristics of Super-Peers**

The first four research questions are aimed at exploring the demographic characteristics of students in relation to the frequency of discussions, the topics students discuss, their modes of communication, and the positive or negative tone of their discussions. The research questions connected to this focus are illustrated in Figure 1-4.
RQ1. In what ways are college students’ demographic characteristics associated with the frequency of sexual health communication? I anticipate that there will be differences in rates of sexual communication by age, gender, sexual orientation, and racial/ethnic background. Specifically, women are expected to discuss sexual health more frequently than men (Hyp.1.1) due to an overall increased comfort in discussing sexual health with peers. Based on the stigma associated with LGB characteristics and the smaller number of LBG peers available to have discussions, LBG participants are expected to discuss sexual health with peers less frequently than straight participants (Hyp 1.2). White students are expected to discuss sexual health with their peers more than students of other racial/ethnic backgrounds (Hyp 1.3). However, because the
students in the study were drawn from a largely homogeneous population with relatively few non-White and non-heterosexual students, I anticipated that there would be insufficient numbers to detect small differences between these students with these characteristics compared to the majority. Regarding age, the frequency of peer sexual health discussions is expected to increase with age (Hyp 1.4), due to differences in sexual experience and access to alcohol and social events where alcohol is served legally.

**RQ2. In what ways are college students’ demographic characteristics associated with the type of sexual health topics they discussed with their peers?** I anticipate that there will be differences in the sexual health topics discussed by age, gender, sexual orientation, and racial/ethnic background. Specifically, discussion of negative sexual experiences are expected to increase with age (Hyp 2.1) because students over 21 tend to be more sexually experienced and have easier access to alcohol. Women are expected to discuss “Pregnancy/Pregnancy-Prevention” more than men (Hyp 2.2). LGB participants are expected to discuss “STIs/HIV” more than heterosexual participants (Hyp 2.3) due to the rate of HIV and other STIs in gay men. LBG participants are expected to discuss “Pregnancy/Pregnancy-Prevention” less than heterosexual participants (Hyp 2.4) since pregnancy is not an outcome of same-sex intercourse. There is no literature suggesting that there would be a difference in the topics discussed when broken down by race/ethnicity. However, non-White participants are expected to discuss sexual health topics less frequently than White participants (Hyp 2.5) due to a smaller number of non-White peers at this university.

**RQ3. In what ways are college students’ demographic characteristics associated with the modes (e.g., in person vs. via technology) they use to discuss**
**sexual health information with their peers?** I anticipate that there will be demographic differences in the modes used by students to communicate with peers about sexual health. Women were expected to use social network tools more than the male students (Hyp 3.1) based on a larger number of women who used social networks (Fox, Zickuhr, & Smith, 2009). LGB participants are expected to use technology-based modes such as instant messaging and texting more than heterosexual participants (Hyp 3.2) due to privacy concerns. Non-White students are expected to use phone-based technologies more than White students (Hyp 3.3) because African Americans and Hispanics were found to have higher cell phone ownership and more frequent texting behavior than Whites (Lenhart, 2010).

**RQ4. In what ways are college students’ demographic characteristics associated with the positive or negative tone of college students’ sexual health communication with their peers?** I expect to find demographic differences in the tone of sexual health discussions with peers. Specifically, the tone of peer sexual health discussions is expected to become more positive with age (Hyp 4.1). Women are expected to have a more positive tone than men (Hyp 4.2). LGB participants are expected to have a more negative tone than heterosexual participants (Hyp 4.3). White students are expected to have more positive tone than Non-White students (Hyp 4.4).

**The Nature of Peer Sexual Health Communication**

This research focus has one research question (Research question 5) that examines the context of peer sexual health communication as students describe it. Figure 1-5 shows the research focus along with some patterns that I expect to see in the data. These expected patterns are described in further detail along with Research Question 5.
Figure 1-5: Patterns expected to emerge from a qualitative examination into the nature of peer sexual health communication.

RQ5. How do students describe their experience with peer sexual health communication?

The exploratory nature of qualitative research does not depend on testing hypotheses. However, I expect to see certain patterns in the data. These expectations will be tested and reshaped based on results. In that sense, these expectations are a starting point for hypothesis building. Peer sexual health discussions expected to be triggered by life events, either of the participant or someone close to them (Hyp 5.1). Students are expected to refer to content and discussions from the sexual health course (Hyp 5.2). Peer
sexual health discussions are expected to be triggered by television and other sources of news and entertainment (Hyp 5.3). Students are expected to take information from the sexual health course and share it with their peers (Hyp 5.4). In addition to these hypotheses, I expected to find other insights into peer sexual communication patterns that I hadn’t previously considered and have not been studied in existing literature.

**Course Effects on Peer Sexual Health Communication**

This research focus looks at the impact of the sexual health course on peer sexual health communication. Specifically, Research Questions 6 through 8 examine changes in frequency, topics, and positive or negative tone as the semester progresses. Figure 1-6 shows this research focus in relation to the three research questions.

Figure 1-6: Research questions associated with the course effects focus.
RQ6. Do college students have more frequent discussions of sexual health as they progress through a course on human sexuality? The overall frequency with which students discuss sexual health with their peers is expected to increase. Specifically, the frequency of peer sexual health discussions is expected to increase more for male students than for female students (Hyp 6.1). The frequency is also expected to increase for LBG students (Hyp 6.2), non-White students (Hyp 6.3), and younger students (Hyp 6.4).

RQ7. To what extent are the topics of college students’ discussions of sexual health influenced by the sequence of topics in a course on human sexuality? Students are expected to discuss a sexual health topic more after it was covered in a course on human sexuality (Hyp 7.1).

RQ8. Does the tone of college students’ discussions of sexual health become more positive as they progress through a course on human sexuality? The tone of peer sexual health discussions is expected to become more positive over time. There will be demographic differences in the change to a more positive tone. Specifically, the change in tone is expected to be more positive for male students than for female students (Hyp 8.1). The change in tone is also expected to be greater for LBG students (Hyp 8.2), non-White students (Hyp 8.3), and younger students (Hyp 8.4).

Purpose of this Dissertation

Today’s American adolescents are sexually active, yet many have insufficient knowledge of sexual health and safer sex practices. This puts them at risk for serious consequences such as unintended pregnancy and STIs. These consequences can have a
negative impact on their mental and physical health as well as their long-term socioeconomic status.

Comprehensive sex education has been shown to improve sexual health outcomes. However we know from previous studies that adolescents rely on their peers as their primary source of sexual health information. Therefore, if health educators understand the nature of peer sexual health communication and the impact of sexual health courses on that communication, they may be able to further improve outcomes.

There are large gaps in existing research on peer sexual health communication. We know that there are some differences in the frequency of these sexual health discussions and modes of communication based on certain demographic characteristics. However, no study has sought to create a complete picture of peer sexual health communication or to investigate the degree to which certain individuals function as super-peers. This dissertation begins to fill these gaps in the research by seeking to discover who is talking about sexual health, the purpose and context of these discussions, and the effects of a sexual health course on peer sexual health communication.
Chapter 2

Methods for Identifying Super-Peer Demographic Characteristics, Describing the Experience of Peer Sexual Health Communication, and Examining Course Effects

Data were originally collected as a teaching tool and as a way to facilitate future improvements to a sexual health course taught at a large university in Pennsylvania. The course was designed to provide students with a solid introduction in human sexuality with an emphasis on sexual health issues (see Appendix A for a list of class sessions and topics). Through presentations to the large class, as well as weekly peer-mediated smaller group meetings, students were introduced to both knowledge and skills to help them make better decisions about their sexual health practices and relationships. Fundamentals of human sexuality were presented including: the influences that shape sexuality, gender development, sexual orientation, health issues of the sexual female and male body, enhancements and inhibitors to sexual response, and enhancing sexual relationships. Specific sexual health issues focused on by the instructor were unintended pregnancy, contraceptive methods, sexual assault, sexually transmissible infections, HIV disease, and safer-sex strategies.

The sexual health course differs from many college level resident instruction courses because it included a peer-mediated discussion session once a week. There were four discussion groups that met 13 times per semester. Each discussion group consisted of 25-28 students and two peer leaders who had completed the course in previous semesters. Before each discussion group meeting, the teaching assistant gave all students a reflective homework activity. Then, during the weekly discussion group meetings,
students practiced critical thinking, communication, and decision-making skills through structured interactive activities facilitated by the peer leaders.

Early in the Spring 2009 semester, the lead faculty member and teaching assistant (myself) designed a survey to see whether the design of the course was meeting one of its learning objectives, which was that students would demonstrate “increased comfort and communication skills with various aspects of human sexuality.” The data were intended to enhance the peer-mediated sessions and to inform the structured interactive activities. The data provide interesting and novel information about peer sexual health communication.

**Instrument**

The weekly survey was composed of 14 questions that were either multiple choice, multiple select, or open-ended. Questions at the beginning of the survey asked for demographic characteristics and whether students had discussed sexual health with their peers in the past week. The survey defined *peers* as “people close to your age in your social group such as friends, acquaintances, co-workers, roommates, and classmates.” If students had such a discussion, the survey asked for details regarding how often the discussions happened, who initiated, how many people were involved, the mode through which the discussion occurred, the tone of the discussion, and the purpose of the discussion. See Appendix B for a complete list of questions and possible responses.
Procedure

During the Spring 2009 semester, students were asked to fill out a short anonymous weekly survey through ANGEL, an online course management system used to facilitate course assignments, communication, content, and grading. Students in the sexual health course had 11 opportunities to fill out the survey during weeks 5 through 15 of the semester. ANGEL kept a tally of the number of times each student completed the survey, but kept no record of which students were associated with which responses. In exchange for completing the surveys, students were assigned a small amount of extra credit, which was equivalent to a maximum increase in their grade of 2% if they completed all 11 surveys.

Participants

During the Spring 2009 semester, 110 students were enrolled in the course at the time that the survey was first administered. Of those enrolled, 102 students (57 women and 45 men) ranging in age from 18 to 25 years (M = 21.2 years, SD = 1.2 years) completed the weekly survey at least once. The response rate did not vary greatly between male and female participants. Female students had an overall completion rate of 74.3% and male students had a completion rate of 72.3%. The Table 2-1 shows the number of participants who responded each week.
Table 2-1: Number of survey responses by week and gender.

<table>
<thead>
<tr>
<th>Week Number</th>
<th>Number of Female Respondents</th>
<th>Female Completion %</th>
<th>Number of Male Respondents</th>
<th>Male Completion %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>52</td>
<td>91.2</td>
<td>41</td>
<td>91.1</td>
</tr>
<tr>
<td>2</td>
<td>53</td>
<td>93.0</td>
<td>41</td>
<td>91.1</td>
</tr>
<tr>
<td>3</td>
<td>32</td>
<td>56.1</td>
<td>25</td>
<td>55.6</td>
</tr>
<tr>
<td>4</td>
<td>45</td>
<td>78.9</td>
<td>38</td>
<td>84.4</td>
</tr>
<tr>
<td>5</td>
<td>41</td>
<td>71.9</td>
<td>28</td>
<td>62.2</td>
</tr>
<tr>
<td>6</td>
<td>45</td>
<td>78.9</td>
<td>28</td>
<td>62.2</td>
</tr>
<tr>
<td>7</td>
<td>45</td>
<td>78.9</td>
<td>33</td>
<td>73.3</td>
</tr>
<tr>
<td>8</td>
<td>43</td>
<td>75.4</td>
<td>33</td>
<td>73.3</td>
</tr>
<tr>
<td>9</td>
<td>39</td>
<td>68.4</td>
<td>30</td>
<td>66.7</td>
</tr>
<tr>
<td>10</td>
<td>37</td>
<td>64.9</td>
<td>36</td>
<td>80.0</td>
</tr>
<tr>
<td>11</td>
<td>34</td>
<td>59.6</td>
<td>25</td>
<td>55.6</td>
</tr>
<tr>
<td>Total</td>
<td>446</td>
<td>74.3</td>
<td>358</td>
<td>72.3</td>
</tr>
</tbody>
</table>

*Note.* Weeks 3 and 11 had the lowest submissions. Week 3 was during the university’s spring break. Week 11 was during final exams.

Figure 2-1 shows a count of the number of female and male student based on the number of surveys they completed. Since there were more female than male students, Figure 2-2 shows the percentage of female and male students by the number of surveys that they completed so gender differences can be more directly compared.
Regardless of gender, there was an upward trend toward completing all surveys.

While there were some students who only completed one survey or responded sporadically, the majority of students submitted 10 or 11 of the surveys. If the 102
students who participated in the survey submitted all 11 surveys, there would be 1122 submissions. The actual number of submissions was 824, which is 73.4% complete and 26.6% missing submissions.

Using NCSS PASS13 (a priori set power at 80%, alpha at .05) the sample size is large enough to detect statistically significant results using both descriptive statistics and logistic regression. To compare proportional differences between groups with an n of 40 per group, at 80% power, and alpha = .05 I will be able to detect a .3 proportion difference, which is a small to medium effect size. For my repeated measures analyses, with a sample size of 40 per group and an alpha = .05, I have 97% power to detect an odds ratio of 4 with 11 repeated measurement, which is equivalent to a medium to large effect size.

After reviewing the survey results, some changes were made to clean the data as follows:

- The first time the survey was administered, it contained an extra question asking students to describe other modes of communication they used. This question was removed for the second and subsequent surveys. For that reason, the question was eliminated from the analysis.
- Students were asked to fill out one copy of the survey if they were male and another copy if they were female. In one case, a male student filled out both the male and female surveys. These submissions were identical, so the copy in the female survey was deleted.
- In two cases, male students filled out the female survey. These submissions were not duplicates, so these two submissions were moved into the male data set.
Across all survey responses, there was one person who identified as transgender, but only in 1 out of 11 of this student’s submission. In all other surveys, this student identified as male. For this reason, the transgender response was treated as an error and was changed to male to be consistent with all of the other submissions from this student.

Methods of Analysis

To answer the eight research questions, I used a combination of quantitative and qualitative techniques. Research questions one through four are focused on demographic characteristics associated with the frequency of sexual health communication, the topics discussed, the modes of communication used, and the tone of the communication. For these four questions, I used data from the first survey and ran a series of logistic regressions. In addition, I used qualitative findings to inform my interpretation of these results. Research question five examines the purpose of sexual health communication as described by students. For this question, I used a four-stage qualitative induction process to identify topics, themes, and relationships. Finally, research questions six through eight are focused on the effects of the course on peer sexual health communication. For these questions, I examined the frequencies with which course topics were discussed and used a Generalized Linear Mixed Model to examine changes in tone and frequency of communication. I used the qualitative findings to inform my interpretation of these results. Each research question along with hypotheses, variables, and methods are described below.
Method for Identifying Super-Peer Demographic Characteristics

The goal of this stage of the analyses is to examine demographic differences in who is talking at the beginning of the course. In order to get a clearer picture of who is talking, without course effects, I chose not to examine aggregate data. These analyses of the first week’s data act as a pseudo “pre-intervention” sample, which may serve as baseline data to compare to longitudinal results.

For all of these analyses, student responses to demographic questions were used as the independent variables. For all of the logistic regressions, the demographic variables were coded as follows:

- **Age** was coded as a numeric value ranging from 18 to 25 based on what was reported by students.
- **Sex** has two levels since no participants reported being transgender. The two levels remaining are “Female” and “Male,” which do not need to be coded into dummy variables.
- **Orientation** was coded as “Heterosexual” and “non-Heterosexual.” The “non-Heterosexual” category includes homosexual and bisexual students. No students reported being asexual or questioning.
- **Race** was coded as “White” and “non-White” due to the small number of non-White students in the course. Students who reported that they had multiple racial/ethnic backgrounds were also coded “non-White.”

Data for the dependent variables came from questions on the frequency of communication, topics discussed, mode used, and tone of the discussion, depending on the focus of the research question.
RQ1. In what ways are college students’ demographic characteristics associated with the frequency of sexual health communication? In this question, I examined the frequency of sexual health communication for the past week. The dependent variable, frequency, was based on the question, “How often did you talk to your peers about sexual health this week?” There were five levels that were coded numerically into an ordinal variable as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>I didn't talk to them about these sexual health topics this week</td>
</tr>
<tr>
<td>1</td>
<td>About once this week</td>
</tr>
<tr>
<td>2</td>
<td>A few times this week</td>
</tr>
<tr>
<td>3</td>
<td>About once a day</td>
</tr>
<tr>
<td>4</td>
<td>More than once a day</td>
</tr>
</tbody>
</table>

These data were analyzed using an ordinal logistic regression in SPSS version 22 to determine any statistical differences at the $p < .05$ level.

RQ2. In what ways are college students’ demographic characteristics associated with the sexual health topics they discuss with their peers? In this question, I examined demographic differences in topics discussed by participants. The data for this question come from the question: “In the past week, did you talk with your peers about any of the following topics?” Participants were able to select one or more responses. Each possible response was coded as its own dependent variable as follows:

- **Safer Sex/Condoms/Contraception** = 1 if students chose “a) Safer Sex/Condoms/Contraception” or 0 if they did not choose this option.
- **STIs/HIV** = 1 if students chose “b) STIs/HIV” or 0 if they did not choose this option.
• Pregnancy = 1 if students chose “c) Pregnancy/Pregnancy-Prevention” or 0 if they did not choose this option.

• Negative Sexual Experience = 1 if students chose “d) Negative Sexual Experience (Regretted Sex/Alcohol and Sex/Unwanted sex)” or 0 if they did not choose this option.

I ran a binary logistic regression for each of these dependent variables using SPSS version 22 to determine any statistical differences at the \( p < .05 \) level.

RQ3. In what ways are college students’ demographic characteristics associated with the modes (e.g., in person vs. via technology) they use to discuss sexual health information with their peers? In this question, I examined the communication mechanisms that college students use to discuss sexual health with their peers, broken down by their demographic characteristics. The data were drawn from the responses to the question: “When you talked to your peers about these sexual health topics this week, through what medium/technology did those conversations take place?” Participants were able to select one or more responses from a list. I treated each response as a separate dependent variable, coded as follows:

• Face to Face = 1 if students chose “a) Face to Face Discussion” or 0 if they did not choose this option.

• Blog = 1 if students chose “b) Online - Blog” or 0 if they did not choose this option.

• Email = 1 if students chose “c) Online – E-mail” or 0 if they did not choose this option.
• IM = 1 if students chose “d) Online – Instant Messaging (AIM, Yahoo Messenger, MSN Messenger)” or 0 if they did not choose this option.

• SocialNetwork = 1 if students chose “e) Online – Social Network (Facebook, MySpace, etc…)” or 0 if they did not choose this option.

• Phone = 1 if students chose “e) Telephone – Phone Call” or 0 if they did not choose this option.

• TextMessage = 1 if students chose “e) Telephone – Text Message” or 0 if they did not choose this option.

I ran a binary logistic regression for each of these dependent variables using SPSS version 22 to determine any statistical differences at the $p < .05$ level.

**RQ4. In what ways are college students’ demographic characteristics associated with the positive or negative tone of college students’ sexual health communication with their peers?** For this question, I examined the tone of the sexual health communication, broken down by their demographic characteristics. The data for the dependent variable, tone, came from the responses to the question: “If you talked with peers about these sexual health topics this week, what was the tone of the discussion?” There were six levels of response to this question. If students chose “I did not talk with them about these sexual health topics this week,” they were not included in the analysis. The other responses were coded into an ordinal variable as follows:

1 = Very Negative

2 = Somewhat Negative

3 = Neither Negative nor Positive

4 = Somewhat Positive
5 = Very Positive

These data were analyzed using an ordinal logistic regression in SPSS version 22 to determine any statistical differences at the $p < .05$ level.

**Method for Describing the Experience of Sexual Health Communication**

In addition to the analysis of the first survey to identify demographic characteristics that are associated differences in frequency, topic, tone, and mode of peer sexual health communication, I conducted a thorough qualitative analysis on the responses that students entered into the open-ended questions. There are no tests of significance in qualitative research and the results are not generalizable in a traditional way. However, for research areas such as peer sexual health communication where little is known, qualitative analyses can result in a rich description of the phenomenon being studied. In this case, the qualitative analysis provided rich insights into the possible range of topics that adolescents discuss, nuances within those topics, what triggered the discussions, and how topics are related to each other. This analysis was conducted to answer one broad research question (RQ5) that served as the launching point for deeper understanding into the experience of peer sexual health communication.

**RQ5. How do students describe their experience with peer sexual health communication?** I addressed this question based on the results of three of the survey questions. The first is “Please describe the specific topics discussed,” which comes after students are asked to identify what topics they discussed with their peers. The second question is “Please briefly describe the purpose of your discussions with your peers about
these sexual health topics.” The third question is “Anything else?” which is the final question on the survey.

The responses to the three open ended questions were grouped together to create a complete picture of the experience that the student described. Data from all of the weeks were used. To analyze these data, I used an inductive technique that allowed me to identify key concepts and patterns in participants’ responses. Specifically, I used the four-stage inductive analysis process outlined by Glaser and Strauss (1999).

**First phase:** Using Excel, I created a spreadsheet with a tab for each survey. Each row represented one survey submission. As I read through each response, I coded each one with a few words or short phrases that summarized the topics, purpose, and other emphasized elements described by participants. These labels included sexual health topics (e.g. “HPV vaccination,” “using condom”), triggering conditions (e.g. “doctor’s appointment,” “boyfriend visit”), emotional states (e.g. “upset,” “curious”), and other words or phrases that emerged from reading and re-reading the responses. This was done in two initial readings and continued throughout the rest of the analysis process to make adjustments based on connections, conflicts, and differences.

**Second phase:** After clarifying labels in the first phase, I reorganized all of the submissions by their common labels. Each submission could have multiple labels, so submissions were duplicated and placed in as many groups as needed. I reviewed the submissions with the same label to ensure that they had enough in common to be grouped together. Next, I grouped labels together if they shared a common theme. For example, all of the labels referring to STI information,
prevention, symptoms, and treatment were grouped into a broader “Sexually Transmitted Infections” category.

**Third phase:** I examined the demographic information associated the submissions within each label and made notes regarding differences in meaning. In some cases, this resulted in new labels and categories such as the labels “misogynistic language,” “humor,” and “storytelling,” which were part of a new “peer communications norms” category. I also compared categories to each other to look for relationships between them.

**Fourth phase:** In the last phase of the analysis, I described each category and its constituent labels. For each label, I selected exemplars that conveyed the idea behind the label as well as variations in meaning and use, especially where there were differences in these concepts based on demographic characteristics. I organized the categories into a theoretical structure that illustrates conceptual connections with *Peer Support* as the central theme due to the focus of this dissertation.

The final combination of categories, labels, examples, and the concept map show how students describe the experience of peer sexual health communication and should identify areas for additional research.

**Method for Identifying Course Effects on Peer Sexual Health Communication**

The goal of the longitudinal analyses was to identify changes in peer sexual health communication over time to see whether the sexual health course has had an effect. Through this analysis, I was looking for changes in the frequency, topics being discussed,
and tone. For all of these analyses, student responses to demographic questions were used as the independent variables, which were coded as follows:

- *Age* was coded as a numeric value ranging from 18 to 25 based on what was reported by students.
- *Sex* has two levels since no participants reported being transgender. The two levels remaining are “Female” and “Male,” which do not need to be coded into dummy variables.
- *Orientation* was coded as “Heterosexual” and “non-Heterosexual.” The “non-Heterosexual” category includes homosexual and bisexual students. No students reported being asexual or questioning.
- *Race* was coded as “White” and “non-White” due to the small number of non-White students in the course. Students who reported that they had multiple racial/ethnic backgrounds were also coded “non-White.”

Data for the dependent variables came from questions on the frequency of communication, topics discussed, and tone of the discussion, depending on the focus of the research question.

**RQ6. Do college students have more frequent discussions of sexual health as they progress through a course on human sexuality?** In this question, I examined changes in the frequency of sexual health communication throughout the semester. The dependent variable, frequency, was based on the question, “How often did you talk to your peers about sexual health this week?” There were five levels that were coded numerically into an ordinal variable as follows:

- 0 = I didn't talk to them about these sexual health topics this week
1 = About once this week
2 = A few times this week
3 = About once a day
4 = More than once a day

I conducted an ordinal logistic regression with repeated measures on these data using generalized estimating equations (GEE) in SPSS version 22 to determine any statistical differences at the $p < .05$ level. GEE enabled me to identify an overall change in the frequency of peer discussions over time as well as identify demographic groups that had significantly different changes in frequency compared to their reference groups. I used data from surveys 1 through 10 due to the low response rate and unusual circumstance of the week 11 survey, which was conducted during the final exam period.

**RQ7. To what extent are the topics of college students’ discussions of sexual health influenced by the sequence of topics in a course on human sexuality?** In this question, I examined survey data regarding topics discussed by the students. The data was drawn from the question: “In the past week, did you talk with your peers about any of the following topics?” Participants were able to select multiple responses from the following list: a) Safer Sex/Condoms/Contraception, b) STIs/HIV, c) Pregnancy/Pregnancy-Prevention, d) Negative Sexual Experience (Regretted Sex/Alcohol and Sex/Unwanted Sex), and e) I did not talk to my peers about any sexual health topics this week. I performed binary logistic regressions with repeated measures to determine whether there were statistically significant changes in the number of students who reported discussing each topic over the course of the semester. I also conducted Z-tests to determine statistically significant changes the discussion of a sexual health topic
as it was introduced. In these Z-tests, I compared the proportion of students who discussed a sexual health topic in the week before it was introduced to the proportion of students who discussed the topic in the week after it was introduced.

**RQ8. Does the tone of college students’ discussions of sexual health become more positive as they progress through a course on human sexuality?** In this question, I examined data regarding the positive or negative tone of peer sexual health discussions. These data were drawn from the responses to the question: “If you talked with peers about these sexual health topics this week, what was the tone of the discussion?” There were six levels of response to this question. If students chose “I did not talk with them about these sexual health topics this week,” they were not included in the analysis. The other responses were coded into an ordinal variable as follows:

1 = Very Negative
2 = Somewhat Negative
3 = Neither Negative nor Positive
4 = Somewhat Positive
5 = Very Positive

I conducted an ordinal logistic regression with repeated measures on these data using generalized estimating equations (GEE) in SPSS version 22 to determine any statistical differences at the $p < .05$ level. GEE enabled me to identify an overall change in the tone of peer discussions over time as well as identify demographic groups that had significantly different changes in tone compared to their reference groups. I used data from surveys 1 through 10 due to the low response rate and unusual circumstance of the week 11 survey, which was conducted during the final exam period.
In summary, my intention was to build a new understanding of peer sexual health communication by examining this phenomenon from three different perspectives. The first is a demographic analysis of peer sexual health communication based on the data from the first survey. The second a qualitative induction process examining responses to the open-ended questions. The third is a longitudinal analysis of the effects of the course on peer sexual health communication. This three-part approach is pictured in Figure 2-3.

Figure 2-3: Summary of three research themes, sources of data, and methods of analysis.
Chapter 3

Qualitative Induction: Exploring the Experience of Peer Sexual Health Communication

The focus of this chapter is on the outcomes of the qualitative inductive process used to analyze the open-ended survey responses. These responses provide rich details regarding the experience of sexual health communication as perceived by the students in the sexual health course. The responses were labeled based on the topics of discussion, events that triggered the discussion, and contextual factors such as the location of the discussion and the emotional states of the participants. These labels were organized into categories, which were defined by their common characteristics and organized into a conceptual framework.

During the initial phase of the qualitative analysis, I identified 352 survey submissions with substantial responses to the open-ended questions about peer sexual health communication. Responses from women outnumbered responses from men, 217 to 135. Applying one or more labels to each submission resulted in 735 labels or an average of 2.1 labels per submission.

After grouping the labels together based on common themes, I identified 10 larger categories, of which 7 are relevant to this study:

The other three categories were Alcohol, Relationships, and Gender-Specific Issues. These categories were not included in the analysis because they are not directly related to sexual health. When students gave responses that were identified as part of these three categories, those submissions were always connected to another primary sexual health categories. For example, when students talked to their peers about alcohol, they discussed alcohol as a factor related to regretted sex or improper condom use.
1) Safer Sex

2) Sexually Transmitted Infections

3) Pregnancy

4) Feelings about Sex

5) Sexual Acts

6) Peer Support

7) Peer Communication Norms

Each of these seven categories is described below along with its constituent labels and illustrative examples. Each category and label begins with “3” in reference to this chapter number, then the number of the category, then the number of the label. The example quotes from students will use pseudonyms assigned based on the Social Security Administration’s list of most popular names of the 1980s, the decade in which the majority of these students were born (Social Security Administration, 2014). For example, the “male 18” respondent will be referred to as the 18th most popular name, Jonathan. In addition, the student’s race, gender, and age are included with this name. Since most of the students in the class are heterosexual, sexual orientation is only noted when a response came from a gay student.

3.1. Safer Sex

This category included submissions where students indicated that they talked to their peers about having sex while preventing sexually transmitted infections and pregnancy. This category included the following labels: Decision Making, Morning After Pill, Condoms, and Education. Each of these labels is described below, along with
examples of how students discussed these topics. Each label begins with “3.1.x Safer Sex:” to indicate to which category the label belongs.

3.1.1 Safer Sex: Decision Making. I applied this label to submissions where students indicated that they or their peers were making some kind of choice about safer sex. The choices described included the following: whether to practice safe sex or not, choosing between options such as condoms and hormonal birth control, deciding whether to use multiple forms of birth control, evaluating the side effects of birth control options, reflecting on their own risky sex histories or stories from friends, and helping peers make safer sex choices. Of the 68 submissions with this label, 58 came from women and 10 from men. Within the men’s submissions, 8 of the 10 were in the first two surveys, however the women’s submissions were evenly distributed throughout the semester. The most common triggers for these conversations were a friend’s experience or behavior, a class topic/activity, and negotiating safer sex with a partner.

William (White, male, 22) talked to a friend about a girl he knows is taking birth control pills and having sex with multiple partners. William and his friend concluded that it was “not a good decision considering it’s important to protect yourself from STI’s when you have multiple partners.” In this case, the discussion was triggered by the behavior of an acquaintance. William’s responses to the other survey questions indicate that he shared information from the sexual health course during this conversation.

Angela (White, female, 22) had a discussion with a group of friends about contraceptive options including the female condom, the intrauterine device (IUD), and the NuvaRing. Angela indicated that she had just learned about the female condom in class and shared that information with her friends. Her friends talked about their own
birth control options. Angela explained what the IUD was to her friend who was using one, but didn’t understand it.

Tiffany (Black, female, 22) had multiple conversations with two friends who were having unprotected sex to encourage them to use some form of contraception. In one case, her friend’s partner bought her a morning after pill. In the other, Tiffany was concerned for her friend because “she has multiple partners and I would hate for her to get pregnant and not no [sic] who the father is.” In both cases, these conversations were triggered by the behavior of Tiffany’s friends.

3.1.2 Safer Sex: Morning After Pill. The morning-after pill is a contraception option. However, since the morning-after pill is normally chosen as a reaction to an experience of unprotected sex, a broken condom, or some other condition where pregnancy is a risk, it warrants its own label. This label was used for submissions related to past experience with the morning-after pill, using one because of a broken condom, and knowing someone who has used one multiple times. Of the seven submissions with this label, six were from women. All of the discussions were triggered by a recent or past experience of the student or someone close to them.

Angela (White, female, 22) had two survey submissions about the morning-after pill. In the first survey, she stated that she had unprotected sex while drunk and considered the morning-after pill, but decided against it because of the cost. In the fourth survey, she talked to her friend who had an abortion at a clinic where “pro-life activists were yelling and screaming at her”. She appreciated having the morning-after pill as an option, stating, “now that there is the option of Plan B, it is really helpful so that girls don't have to be put in situations such as these. I just wish the cost of them would be
extremely lower than what it is now.” In both cases, these discussions were triggered by a directly related life event.

Maria (Black, female, 19) had a roommate who stopped taking birth control pills before going on spring break and then had sex with her boyfriend who hates using condoms. Since her roommate was concerned that she was pregnant, they “immediately went to CVS to buy ‘Plan B’.” This discussion was triggered by her roommate’s behavior and request for help. Maria indicated that she shared information from the sexual health course during this discussion.

In two other submissions, students indicated surprise and concern over the multiple uses of the morning-after pill by someone they know.

3.1.3 Safer Sex: Condoms. I used this label on all survey submissions where condoms were specifically listed as a topic of discussion versus more general topics like “contraception” or “birth control options”. Of all the labels used in this analysis, “3.1.3 Safer Sex: Condoms” was used most frequently, being applied to 31.1% of male and 29.5% of female submissions. Students indicated discussing a wide range of topics related to condoms, including: using them to prevent pregnancy and STIs, proper use, poor or inconsistent condom use, types/characteristics of condoms, use within relationships and hookups, and anti-condom attitudes.

Since the primary function of condoms is to prevent pregnancy and the transmission of STIs, it is not a surprise that students talked about using condoms for this purpose with friends and partners. For many of the female students, using condoms was often discussed as one of several options for birth control. However, for male students, condoms were usually discussed as the one and only option for safer sex. This was
especially evident over spring break when David (Asian, male, 22) said that he and his friends “just wanted to get laid over spring break without getting anything else. (ie STI, baby).” Also on spring break, Adam (White, male, 20) and his friends made sure they were prepared. They “bought each other a pack of condoms, just in case anything happened” and they “advised each other to wear condoms if that situation were to arise.” Kevin (White, male, 20, gay) talked to friends about condoms several times throughout the semester. When discussing to his own sexual activity, he referred to condoms as preventing STIs, especially HIV. When talking to his female friends about their sexual activity, he referred to condoms as preventing both STIs and pregnancy. For all students, references to condoms preventing STIs and pregnancy happened throughout the semester. Discussions about using condoms to prevent pregnancy and STIs were triggered by their own sexual activity, the sexual activity of someone they know, or in reference to topics and activities in the sexual health course. Examples of these topics and activities include STI rates, methods of transmission, a condom demonstration activity, and an assignment where students were asked to survey their peers about condoms.

In the third and fourth surveys, “proper condom use” was a common topic of peer discussion that was triggered by a class activity where students were shown the best way to put on and remove a condom. For some female students, this seemed to be new information that they wanted to share with friends. Natalie (White, female, 22) said that she “explained how we learned the steps to put on a condom and shared it with my roommates.” April (White, female, 22) talked to her friends about the importance of using condoms to prevent STIs and was surprised to find out that “not many girls know how to put a condom on or don’t want to do it. They feel it is the man’s job.” Jason
(White, male, 24) ran into the same gender issue when talking about the activity with his friends and asked a question in his survey submission: “What girls really put on the condom?”

While the students in the class seem to understand the function of condoms, several reported that they or someone they know were not using them properly or as often as they should. Ryan (White, male, 21) and his friends talked about the need to use condoms every time. The trigger for this discussion was hearing that a friend of theirs had gotten his girlfriend pregnant even though they “almost always use condoms.” Megan (White, female, 20) expressed frustration and concern for her friend’s risky behavior stating, “I told one of my friends that she really needs to use protection for the 4th time so she doesn’t get pregnant because she is really taking a big risk.” Using condoms properly can be an issue when alcohol is involved. For example, Jacob (White, male, 21) talked to his friends about their “fears of getting a girl pregnant and how cautious we are when having sex”, however he admitted that when he is drunk, “I do not take the time to make sure that I am using the safest precautions such as checking the expiration date on a condom or even putting it on correctly”. In two submissions, students described stories of desperate attempts to use an improvised condom such as a rubber glove or plastic bag and whether those were safe. There were also three survey submissions about experiences where a condom broke, which lead to concerns of possible pregnancy and/or contracting an STI.

Students reported talking with peers about different types or characteristics of condoms including condom materials, condom size, female condoms, and the quality of free condoms. As part of a discussion about contraceptive options, Heather (White,
female, 22) and a few of her peers discussed condom options for people who are allergic to latex. Jennifer (White, female, 21) talked to one of her peers about natural skin condoms saying, “natural skin condoms werent [sic] effective in preventing some STIs because the skin has pores.” Regarding size, there were a couple of cases where the male student talked to their peers about condoms being too tight for comfort. Stephanie (white, female, 19) was talking with a group of friends and one had recently had sex without a condom because “when she asked him to wear a condom his response was he was too big. I told her that was a horrible excuse.” Four students talked to their peers about the female condom. In all cases, this was an unfamiliar topic that they learned about in the sexual health course. Tiffany (Black, female, 22) said that she had heard of the female condom before, but didn’t know how to use one until it was discussed during the sexual health course. Angela (White, female, 22) also discussed female condoms with her friends including what they looked like and how to use them. Angela indicated that until she and her friends had very little prior knowledge about this option until the sexual health course.

Expectations of condom use appeared to depend on whether students were talking about having sex within a relationship or with casual sex partners (“hookups” or “one night stands”). With hookups, condoms were seen as the best option to prevent both STIs and pregnancy. However, within relationships, relying on another form of birth control was discussed as a viable option. For example, Kristen (White, female, 21) talked to two of her peers about their condom use. One of them used condoms every time. The other never used them because she was in a long-term relationship. Heather (White, female, 22) talked to her roommate about having sex without condoms and said that she was willing
to do this because she was using hormonal birth control and her boyfriend had never had sex before dating her. While this appears to be a reasonable decision, it is worth noting that four students reported that they knew people who had contracted an STI due to a cheating boyfriend or girlfriend.

In addition to students discussing the importance of using condoms to prevent negative consequences and condom use as a responsible behavior, there were some comments from students where they or their peers expressed negative condom attitudes. Nicholas (White, male, 19) and Scott (White, male, 21) had discussions with peers about condoms being too tight or uncomfortable. Maria (Black, female, 19) talked to one of her friends and they agreed that sex feels better without a condom. Kristin (Black, female, 21) agreed that sex is better without a condom, but realized that condoms were good for protection. Sean (White/Hispanic/Latino, male, 23) has a female friend who is sexually active, but doesn’t use condoms because she believes they ruin sex. Sean attempted to convince his friend to see a gynecologist and start practicing safer sex.

3.1.4 Safer Sex: Education. The “Safer Sex: Education” label was applied to survey submissions where students referred to the importance of safer sex education. While this label was only used for seven survey submissions, these student responses provide some insight into how students are reacting to what they are learning.

Kayla (White, female, 25) was talking to a friend about her desire to become a teaching assistant for the sexual health course. Kayla told her friend, “we’re taught to brush our teeth and floss as kids to keep good dental health, but we’re not taught how to use a condom to keep good reproductive/sexual health.” Heather (White, female, 22) agreed that children need to have better sex education: “it baffled me how little STIs are
discussed when kids are younger, and the idea of pregnancy is the only thing they bring up.” Other students commented on learning about their lack of prior sex education before this course and a desire to share information with their peers. For example, Natalie (White, female, 22) shared course information with her sister, who was having concerns about the side effects of the birth control pills that she started taking. Natalie wrote that her sister didn’t have as much information because her sister isn’t getting a health-related degree.

3.2. Sexually Transmitted Infections

This category includes survey submissions where students talked specifically about various aspects of sexually transmitted infections. Within this category were the following labels: Information, Prevention, Contracting, Testing, Treatment, and Communication. Each of these labels is described below along with examples that illustrate how the label was used. Each label name begins with “3.2.x Sexually Transmitted Infections:” to indicate the category to which the label belongs.

3.2.1 Sexually Transmitted Infections: Information. This label was applied to submissions where students talked to their peers about the types of STIs, statistics, symptoms, and progression. Submissions with this label from male students outnumbered ones from female students 20 to 5. In almost all cases, these discussions were triggered by information presented in the course or a course related activity.

In survey four, Adam (White, male, 20) shared STI statistics with his friends as a way to encourage them to use condoms over Spring Break. Later, in survey eight, Adam had a similar discussion with a friend, where he reported, “My friend didn’t think STI’s
were that big of an issue. I pulled out the number from class and he was pretty surprised at how big the problem actually is.” Sean (White/Hispanic/Latino, male, 23) shared information from class about HPV with a friend who was having unprotected sex with multiple partners and encouraged her to see a doctor. Amber (Black, female, 22) recently completed the condom survey in class. She talked with her peers about how she had only surveyed people of one race and commented; “I think [I] understand why the STD/STI rates are so high in the African American community.”

3.2.2 Sexually Transmitted Infections: Prevention. This label was applied to submissions where students talked about preventing an STI. This label was applied to six submissions from male students and eleven submissions from female students. Most of these submissions were cross-listed with other discussions of safer sex or using condoms. In these cases, students talked to peers about using condoms to prevent STIs or a more general choice to avoid STIs by practicing safer sex.

There was one exception to the overlap with safer sex and condoms. Of all the survey submissions, vaccination was only mentioned twice and both of those submissions came from Kevin (White, male, 20, gay). In one case, he simply expressed appreciation for learning about the HPV vaccine. In the other, he said, “Because of this class, I now want to get a Hepatitis vaccine. So, thanks.” Both of these comments were in response to the question “Anything else?” meaning that Kevin may not have discussed vaccinations with his peers.

3.2.3 Sexually Transmitted Infections: Contracting. This label was used for submissions that dealt with being concerned with contracting an STI, theoretical cases of what one would do if they contracted an STI, and actually cases where someone the
student knew contracted an STI. Of the 26 uses of this label, 23 came from female students. The triggers for these peer discussions were either a class topic/activity or a recent experience.

Kayla (White, female, 25) talked to her roommate who was concerned with contracting an STI. They discussed those concerns and how to talk to her boyfriend about them. Jamie (White, female, 21) talked to her roommate who was concerned that she would get an STI because she got drunk and had unprotected sex. Jamie’s roommate “regrets not using a condom since she is unaware of how many people her partner has been with.”

When students are diagnosed with an STI, they can turn to their friends for support. Tiffany (Black, female, 22) talked to one of her friends who was recently diagnosed with herpes. Tiffany “tried to be her shoulder to lean on because she was really hurt by it.” Kristen (White, female, 21) provided support to her friend who found out that she had a yeast infection when her boyfriend was diagnosed with one. Kristen shared information from class and told her friend “that she would be okay, and there are many ways to take care of a yeast infection and how lucky she was that it turned out to be a minor, common disease.”

3.2.4 Sexually Transmitted Infections: Testing. This label was applied to submissions where students talk to their peers about getting tested, fears of getting tested, or types of STI tests. This label was applied to submissions from 3 male students and 16 female students. The most common triggers were either their own experience or the experience of a friend.
Maria (Black, female, 18) talked to her friends about STI testing and said, “getting tested can bring up some fears because you might be worried by the thought of possibly having STIs.” Nicholas (White, male, 22) had a similar discussion with his peers about “how often people refused to get tested because they were ‘too scared to know the results’.” On the other hand, Angela (White, female, 22) says that she gets tested all the time and that “There is no reason to be ashamed to get tested. Ignorance is often the biggest spreader of STIs.”

Kevin (White, male, 20, gay) got an HIV test and was “excited to get the results back – not too nervous.” However, he felt that all HIV tests should be the instant kind because the test he got at the university’s student health services takes two weeks to get the results back. He commented, “That’s torture.” Another student shared information with his friends about how the HIV test only provides accurate results three months after infection.

3.2.5 Sexually Transmitted Infections: Treatment. This label was applied to submissions where students discussed someone they know who is treating an STI. All of these submissions were triggered by the experience of someone they know. This label was applied to one submission from a male student and six submissions from female students.

For example, April (White, female, 22) talked to her friend about her friend going to the doctor to get treatment for her STI. They went on to discuss how they regretted the STI and “how they would do it differently if the situation ever came up again.” Anna (White, female, 22) provided support to her roommate who has HPV and needs to get Pap smear tests on a regular basis with the possibility of needing a biopsy if the abnormal
cells are discovered. Anna noted that she was the only person who knew of her friend’s status and “she just needed someone to share the information with.”

**3.2.6 Sexually Transmitted Infections: Communication.** This label was applied to submissions where students talked to their peers about disclosing an STI status or discussing STI prevention with a partner. It was applied to four submissions from male students and two submissions from female students. The triggers for these conversations included peer experiences, class activities, and rumors.

Two of the six submissions came from Kevin (White, male, 20, gay). In the sixth and seventh surveys, the wrote about a fight that he had with a female friend because “she wouldn’t tell me if she know that [a] guy that I may be interested in was HIV positive. I feel that that’s her responsibility as my friend.” Jacob (White, male, 21) said that while he and his friends have fears of getting an STI, “when we have sex with a girl for the first time, we never ask or care to know if they have one.” Lisa (White, female, 20) had a discussion with her friends about a class activity where they had to write a letter to their parents to tell them that she was infected with HIV. Lisa said, “We just all talked about how each of us would go about telling our parents and how scary the situation would be.”

**3.3. Pregnancy**

This category includes student submissions that dealt with some aspect of pregnancy. The labels within this category are Avoiding, Potential/Scare, Knowing Someone Pregnant, Abortion, and Media. Each of these labels is described below along
with examples that illustrate how the label was used. Each label name begins with “3.3.x Pregnancy:” to indicate the category to which the label belongs.

3.3.1 Pregnancy: Avoiding. This label was applied to submissions where students discussed avoiding pregnancy with their peers. It was applied to 6 submissions from male students and 12 submissions from female students. Within these submissions, students described their desire to avoid pregnancy in a general sense or specific measures to avoid pregnancy. These discussions were triggered by a variety of events including the unplanned pregnancies of friends, the desire to have unprotected sex, the risky sexual behavior of a friend, and an upcoming marriage.

All of the submissions from male students were also labeled “Safer Sex: Condoms” because these students talked to their peers about using condoms as a way to prevent pregnancy. For example, Stephen (Hispanic/Latino, male, 22) said, “I spoke to my girlfriend about condom usage and how it wouldn’t be good for any of us if she were to get pregnant.” David (Asian, male, 22) reported two discussions with his peers about avoiding pregnancy. In one, they were discussing whether a woman could get pregnant during menstruation and if it was necessary to use a condom.

Female students discussed avoiding pregnancy through condoms, birth control pills, other forms of contraception, and using multiple forms together. Kathryn (White, female, 22) talked to some of her peers about what method they were using for birth control and whether they were using multiple methods. Amber (Black, female, 22) talked with her peers about the importance of avoiding pregnancy, but also indicated that she was looking forward to getting pregnant when the time was right.
3.3.2 Pregnancy: Potential/Scare. This label was used for submissions that were related to concerns about or fears of a pregnancy. Of the 19 submissions with this label, 18 were from female students. Most submissions with this label were triggered by personal experiences or experiences of friends related to unprotected sex, broken condoms, and late periods.

Mary (White, female, 22) provided support to her roommate who was concerned about being pregnant after getting drunk and having sex with someone. Mary told her that her chances of getting pregnant were low since they used a condom and she was taking birth control pills. Several of the female students made connections between late periods and menstruation with varying degrees of seriousness. For example, Stephanie (White, female, 19) had a friend who thought she was pregnant, so they went together to a doctor to get tested. Kathryn (White, female, 22) was talking with her roommate about her roommate’s late period and “were half joking about the possibility of her being pregnant and her options if so.” Then they agreed that she and her boyfriend were not ready to be parents.

3.3.3 Pregnancy: Knowing Someone Pregnant. This label was applied to submissions where students discussed knowing someone who is or was pregnant. Within this label, students reported talking about reacting to a surprise pregnancy, being unprepared to be parents, the consequences of pregnancy, and expecting a welcome pregnancy. The discussions were all triggered by the experience of someone they know. In total, there were 30 submissions with this label, 15 from male students and 15 from female students.
Of the 15 submissions from male students, 9 came from Jonathan (White, male, 25) whose wife was pregnant during the semester. Overall, Jonathan said that her pregnancy was a daily topic. He also talked with his peers about fetal development in relation to his son’s upcoming birth and whether they should circumcise him or not based on information presented in the class.

For the other male students in the class, pregnancy was described as undesirable. Kevin (White, male, 20, gay) found out that a friend of a friend is pregnant, “She’s keeping it. But her boyfriend of a year wants nothing to do with her. She’s dropping out of school.” Ryan (White, male, 21) has a friend whose girlfriend is pregnant. He and his friends talked about “how they are not ready to be fathers and how to make it more of a point to always have condoms.”

Elizabeth (White, female, 21) has a friend who was about to give birth. Elizabeth and her friends discussed the consequences of an unplanned pregnancy. Kelly (White, female, 22) spent time talking to a friend who “is pregnant and freaking out everyday.” Christina (White, female, 21) and her friends discussed how they know people who are pregnant and “how much they will have to take on while still trying to establish their own lives.”

3.3.4 Pregnancy: Abortion. This label was used for submissions where students talked about various aspects of abortion. Topics within this label include opinions about abortion, abortion as an option, and the physical impact of abortions. There were 12 submissions with this label. Of these, four were from male students and eight were from female students. Most of these discussions were triggered by a pregnancy of someone
known to the student. Other triggers included a news story about abortion legislation, a discussion with a family member, and studying for a sexual health exam.

Two of the four submissions from male students came from gay students. Paul (White/Asian/American Indian, male, 21, gay) talked to one of his peers about legislation in North Dakota that increased limits on abortions and “limiting women’s rights and also how there is a necessity for sex ed now that they banned abortion.” Kevin (White, male, 20, gay) got into an argument about abortion with his father, who considered abortions to be murder.

The straight male students and the female students discussed abortion in a more concrete sense. Tiffany (Black, female, 22) had a discussion with a friend who had two previous abortions and “is not willing to get anymore [sic] but her partner would want her to if she was to be pregnant.” Tiffany advised her friend that she needed to discuss this with her boyfriend since their views were very different. Angela (White, female, 22) and a friend talked about their prior abortions and how they were glad to have the morning after pill as an option instead of needing to go through “the procedure” again. Nicholas (White, male, 21) talked to his girlfriend about her roommate’s abortion and was surprised to see her out drinking the night after she had it done. This experience caused him to reflect on his own feelings about abortion: “It was also weird to hear that she was only 6 weeks in and the baby had a heartbeat and a visible face and spine. I came to the conclusion that it would be much harder to have an abortion than I thought.”

3.3.5 Pregnancy: Media. This label was applied when students either discussed pregnancy based on seeing something in the media or used media to discuss pregnancy. It
was applied to submissions from one male and six female students. The triggers for these discussions were a story in the media, a friend’s experience, or a class topic.

Two students, Paul (White/Asian/American Indian, male, 21, gay) and Lauren (Asian, female, 21), talked to their friends about Nadya Suleman, who was nicknamed “Octomom” after she gave birth to octuplets in January 2009. This raised questions about multiple births and the economic impact of having many children. Another student had a discussion with a friend about pregnancy and STIs that was triggered by watching an episode of *Sex and the City*.

After covering the birthing process in class, Andrea (White, female, 21) reported multiple discussions with her roommates about birthing options and pain medication. They shared family stories about birthing options. As part of these discussions, they “watched a few people give birth on youtube and we talked about if we would want pain medication.”

### 3.4. Feelings about Sex

This category includes survey submissions where students talked about how they and others perceive sexual experiences. Within this category were the following labels: Enjoyment, Negative Sexual Experiences, Rape/Assault, Perceptions of Promiscuity, and Religion. Each of these labels is described below along with examples that illustrate how the label was used. Each label name begins with “3.4.x Feelings about Sex:” to indicate the category to which the label belongs.

#### 3.4.1 Feelings about Sex: Enjoyment

This label was applied to submissions where students referred to whether they or their peers were enjoying sex. There were
twelve submissions with this label, nine of which came from female students. The triggers for these discussions were either a class topic/activity or a discussion with peers about their experiences. Within this label, the topics discussed were sex with condoms, achieving orgasms, enjoying being sexually active, and knowing your body.

Angela (White, female, 22) had two submissions with this label. In the first one, she was surprised to find out that a friend of hers didn’t masturbate and has only had two orgasms in her life. She explained, “by getting to know her own body, she will be able to show her partner what she likes.” In another submission, Angela found out about the female condom from class and talked with her friends about wanting to find a partner willing to try it with her. She asks, “Shouldn’t everyone be adventurous?” Tiffany (Black, female, 22) agreed that people should enjoy being sexually active, as long as they are taking steps to avoid pregnancy and STIs.

Travis (White, male, 23) had two submissions with this label. In one, he talked to his peers about a time where neither he nor his partner enjoyed sex because she was inexperienced. In another submission, a friend told him about a time when he “hooked up with a girl and he didn’t want to use a condom but she wouldn’t have sex with him if he didn’t put one on. He then said the sex ended up being horrible.” Consistent with items tagged with the label “1.3 Safer Sex: Condoms”, two other students mentioned that they did not enjoy sex as much when using condoms.

3.4.2 Feelings about Sex: Negative Experiences. This label was applied to submissions where students had discussions with their peers about negative sexual experiences. This label was fairly evenly split with 18 submissions from male students and 23 submissions from female students. Within this label, students talked about
negative experiences related to alcohol and impaired judgment, risky sex, unattractive partners, awkward experiences, and casual encounters. These discussions were triggered by recent experiences, the “regretted sex” survey in the sexual health course, and general discussions amongst a group of friends who get to know each other by sharing stories of their worst sexual experiences.

Dustin (White, male, 21) discussed negative sexual experiences with his peers a couple of times. During one, he talked with his friends about someone who is having negative sexual experiences. They want him “to be happier and have a relationship with women instead of treating them like objects.” Jacob (White, male, 21) talked to a friend who regretted a sexual experience because the woman “talked a lot during sex and made fun of him for having long pubic hair, and for not being completely in the mood to have sex.” His friend described the experience as embarrassing and said that he only had sex with her because it had been two months since the last time.

Kevin (White, male, 20, gay) said that he has regretted some sexual experiences because he moves too quickly into a physical relationship and then gets hurt. Rachel (White, female, 21) had a similar discussion with a friend who regretted a sexual experience when she was drunk. According to Rachel, her friend “deemed it as negative because she felt a potential relationship is now ruined from hooking up too soon.”

Both male and female students reported that the regretted a sexual experience because they had sex with someone who wasn’t attractive while they were intoxicated. In other cases, the encounters were simply awkward. Heather (White, female, 22) talked to her friends about a time when she was with a man who “started to sniff me, and would also re-tell everything he was going to do before he did it.” She described this situation
as weird and awkward, which her friends found to be funny. In another case, Rebecca (White, female, 19) talked to a friend about a time that she went over to a friend’s apartment and he began kissing her, but “the experience was awful though because he was a ‘bad’ kisser and she felt a little uncomfortable in his apartment.” Rebecca described this as “a funny experience, but definitely a bad one.”

Other discussions of alcohol and regretted sex had a more serious tone. In the first survey, Rachel (White, female, 20) talked to a peer who had blacked out during sex and did not know what happened or whether they used a condom. In addition, Rachel reported discussions with her peers about alcohol and regretted sex on the second, sixth, and eighth surveys. Lisa (White, female, 20) talked to a friend who became intoxicated and slept with a man and then regretted it because she felt that the man didn’t respect her and this was “becoming a ‘booty call’ relationship.” This experience caused Lisa to reflect on some of the information from the sexual health course. She wrote, “the whole situation with my friend this past weekend put a lot of what we talked about in class into perspective. Alcohol really is very influential during sexual encounters.”

3.4.3 Feelings about Sex: Rape/Assault. This label was applied to submissions that specifically mentioned either rape or sexual assault. It was applied to four submissions, two from male students and two from female students. Three of the four submissions were in the tenth survey, which corresponds to when this topic was covered in the sexual health course. The fourth submission came from a student who was supporting a peer who had been sexually assaulted.

Based on student submissions, it is difficult to tell how they feel about this topic including issues such as its seriousness, complexity, and who is responsible. Gregory
(White, male, 21) and his friends discussed rape and how women were dressed for the weekend. Nicholas (White, male, 22) talked with a group of peers about “how many people we knew who had experiences that seemed to be considered ‘rape’.” Jennifer (White, female, 21) talked to her roommate about a class project where she “printed out stickers that said ‘Get consent before having sex’ and put them in frat mailboxes to prevent rape.”

Unlike these other students, Anna (White, female, 21) dealt with a concrete situation. Anna provided support for a friend who had been through a sexual assault involving alcohol. They discussed her friend’s options and Anna “offered a compassionate listening ear, and advice about how to keep herself feeling strong and enabled.”

3.4.4 Feelings about Sex: Perceptions of Promiscuity. This label was applied to submissions where students talked to their peers about how people are perceived based on their sexual activity. There are five submissions where this label was applied. Two were from Kevin (White, male, 20, gay) and three others from three female students. These discussions were triggered by class activities and personal experiences.

Kevin’s had two discussions with friends about perceptions of sexual activity. In one he said that his friends “said that I’m the token slut of the group. I own it. haha.” In another, Kevin said that one of his friends was “being very promiscuous – sleeping with two boys at the same time” yet his friends also call Kevin promiscuous because he has “occasional one night stands.” Angela (White, female, 22) said that she talked with the other students in the small group section of her sexual health course and asked how many people a woman could sleep with before being considered a slut and the class agreed that
it was under 10. Then when they were asked the same question about men, there was no answer. Angela commented, “I have trouble talking about the number of partners I’ve had because of this double standard. And it just pisses me off.”

3.4.5 Feelings about Sex: Religion. This label was applied to submissions where religion influenced students’ feelings about sexual health or sexual activity. This label was applied to four submissions, two submissions from one gay male student and two more from two female students. These discussions were triggered by personal experiences and class activities.

Kevin (White, male, 20, gay) had two submissions with this label. In one, he had a discussion with friends about the “sinfulness” of oral versus penetrative sex. In the other submission, he told his friends that he was giving up one night stands for Lent because of negative experiences.

Stephanie (White, female, 19) talked to her friends about a “very religious” woman that she knew in high school who was a virgin and wore a promise ring. This woman dated a man for a year, then got engaged and married quickly. Stephanie and her friends concluded, “Everything seemed so rushed, and doesn’t make sense…unless she’s pregnant.”

Lauren (Asian, female, 19) had several submissions where she talked to her peers about a wide range of sexual health topics including circumcision, male birth control pills, LGBT issues, STIs, HIV/AIDS in Africa, and safer sex. However, she ran into an issue when she attempted to share this information with the members of her bible study group. When she tried to tell some members of the group about proper condom use, “One of the co-leaders asked if I refrained from talking about information that I’ve learned.”
Based on this reaction, Lauren decided to “save the information for people who are more open.”

### 3.5. Sexual Variety

This category includes survey submissions where students talked with their peers about different variations on sexual activity. There were two labels in this category: Sexual Acts and Materials. Each of these labels is described below along with examples that illustrate how the label was used. Each label name begins with “3.5.x Sexual Variety:” to indicate the category to which the label belongs.

#### 3.5.1 Sexual Variety: Sexual Acts

This label was applied to submissions where students talked to their peers about ways to be sexually active, either by themselves or with one or more partners. With this label, students talked about sexual positions, oral sex, anal sex, masturbation, and threesomes. The triggers for these discussions included recent experiences, drinking games, and social discussions with peers. The label was applied to six submissions from male students and seven submissions from female students. As an interesting note, these 13 submissions came from only 7 students; most students who talked to peers about sexual acts had these discussions multiple times. In fact, four of the six male submissions came from Kevin (White, male, 20, gay) who talked to his peers about anal sex, oral sex, and threesomes.

Some female students had discussions with their peers about sexual positions in general. Ashley (White, female, 22) had two discussions with peers about which positions they enjoyed. Both conversations involved male peers. The first was with a male friend who is engaged where she asked what positions he prefers. The second was
triggered by a drinking game called “never have I ever,” which involves saying something you haven’t done and then those who have done it take a drink. Ashley said that they talked about “past experiences with sex including positions, anal sex, etc. The guys were very interested in the girls’ past experiences and what they were willing to do.”

In addition to Ashley’s discussion about anal sex, two other female students and one male student mentioned it. Kevin (White, male, 20, gay) provided support to a female friend who, “had anal sex for the first time last night and wanted to discuss it. We all need people for that.” Stephanie (White, female, 19) heard about anal sex from a female friend during a different game of “never have I ever.” She said that one of the other women playing the game described trying it, “but it hurt so they stopped.”

Two gay male students provided all three submissions about threesomes. Kevin (White, male, 20, gay) was invited to participate in a threesome and turned it down. He talked to two of his friends about it who had opposing opinions about whether they would participate in a threesome. Kevin concluded, “I would only if I didn’t have feelings for either of the other two.” Richard (White, male, 23, gay) participated in a threesome. He said that they, “talked about whether or [not] we needed to use protection and we did.”

The three submissions about oral sex came from two male students and one female student. These represented three different perspectives on oral sex. David (Asian, male, 22) was considering having sex with a condom and performing oral sex on a female partner “if she was clean enough.” Kevin (White, male, 20, gay) was talking to a friend about the “sinfulness” of different sexual acts, including oral sex. Amanda (White,
female, 21) and some peers talked negative experiences involving “girls giving blow jobs and then throwing up during.”

The single submission about masturbation came from Angela (White, female, 22) who talked to her friend who had never masturbated before. Angela noted, “I am always amazed that girls do not masturbate or are not open about it like guys are.” Angela saw masturbation as the key to understanding her body and sexual pleasure with a partner.

3.5.2 Sexual Variety: Materials. This label was applied to submissions where students talked to their peers about items that could be used to enhance sexual experiences. These included discussions about lubricants and sex toys. Seven of the eight submissions with this label came from female students.

Advertisements and promotional events triggered some peer discussions about sex toys and lubricants. Jessica (White, female, 21) and her roommate talked about condoms and lubricants after seeing something about a new lubricant on television. On the ninth survey, Katie (White, female, 22) said that she discussed all of the sexual health topics when she went to a sex toy party where they “talked about sexual health and how to please ourselves and our partners.”

Three other of the submissions dealt with cock rings and an interest in trying them. Lisa (White, female, 20) went to the store with some friends to buy a package that contains a condom and a vibrating ring. Lisa and her friends discussed whether the condom would be effective when using the vibrating ring. Lisa commented, “I think maybe there should be more information about sex toys like the vibrating ring and their use with condoms.”
3.6. Peer Support

This category includes survey submissions where students reported that they were providing some kind of direct support to a peer. There are two labels within this category: Comfort Only and Promoting Sexual Health. Each of these labels is described below along with examples that illustrate how the label was used. Each label name begins with “3.6.x Peer Support:” to indicate the category to which the label belongs.

3.6.1 Peer Support: Comfort Only. This label represents submissions describing someone providing comfort to one or more peers without providing sexual health information. This label was applied 14 submissions, of which 3 came from Kevin (White, male, 20, gay) and the other 11 came from female students. Within this label, students described providing comfort related to uncertain feelings about sexual activity, regretted sex, pregnancy, and STIs. The triggers for these discussions are the recent experiences of their peers.

Megan (White, female, 20) talked to a friend who had lost her virginity recently and while the experience wasn’t negative, her friend was unsure how she felt about it. Megan gave her “support on her decision since she was not sure if she made the right one.” Kevin (White, male, 20, gay) uses his peers as a support system saying, “If I had no one to talk to, I would feel dirty and unsure about my actions. It’s nice to bounce experiences/ideas off my friends.”

Peers may seek comfort from each other when they experience one of the unplanned consequences of sexual activity. Christina (White, female, 21) wrote that one of her friends needed someone to talk to because she contracted an STI and took care of it with some medication. Kristen (White, female, 22) met a man in a bar who “got drunk
because his girlfriend cheated on him and gave him herpes.” Kristen and some friends tried to comfort him. Kelly (White, female, 22) provided comfort to her pregnant friend who is “freaking out.”

3.6.2 Peer Support: Promoting Sexual Health. This label represents submissions where peers are actively promoting sexual health by sharing sexual health information or encouraging safer sex practices. Within this label, students discussed sharing information from the sexual health course about STIs, pregnancy, and safer sex as well as promoting the use of condoms and other forms of contraception, doctor visits, STI testing, and partner communication. This label was applied to 48 submissions, 17 of which are from male students and 31 from female students. The triggers for these discussions were peer experiences and class topics/activities.

Some students reported that they found themselves talking about what they learned from class with no direct prompt at all. Charles (White, male, 21) found that during spring break, he “often just blurted random facts from class.” Kevin (White, male, 20, gay) felt “that it is my obligation to inform my friends.” Lisa (White, female, 20) said that she was learning a lot from the class that most people don’t know and added, “I feel good when I pass on the information.” Elizabeth (White, female, 21) expressed her appreciation for the class and said, “I now more than ever understand how important condoms are and I want to inform everyone I can.” Lauren (Asian, female, 21) shared information on a variety of health topics to such an extent that she was asked to stop by the leaders of her bible study class.

In several cases, peers encouraged each other to use condoms. This was often connected to a potential encounter when going to spring break, getting ready for a party,
or going to a bar. Melissa (Hispanic/Latino, female, 19) encouraged her cousin to practice safe sex and use condoms to prevent STIs and pregnancy. Jeffrey (White, male, 22) reminded his roommate to use a condom as his roommate was about to go out for a date. Erica (White, female, 22) talked to a friend who thought she might be pregnant because her period was late. Erica encouraged her friend to use condoms and talk to future partners about condom use, “communication is very underrated… it helps with many issues, especially about one’s body and sexuality.”

Peers can provide support to each other after a regretted sexual experience. After getting drunk, Mary’s (White, female, 22) roommate talked to her about how negative the experience was and her fears of getting pregnant or getting an STI. Mary told her that “if she is on birth control and used a condom, the odds of her getting pregnant are slim to none, and probably shouldn’t have to worry about STIs.” Mary supported her roommate’s decision to get tested anyway. Maria (Black, female, 18) talked to her friend who was nervous about becoming pregnant because she had just had unprotected sex with her boyfriend. Maria explained some contraceptive options, but then went with her friend to get the morning after pill, just in case.

Peers can also encourage each other to seek professional help when a sexual health issue is a serious concern. Sean (White/Hispanic/Latino, male, 23) encouraged talked to a sexually active friend who was sexually active and didn’t use condoms. He told her about the risk she was taking and encouraged her to see a gynecologist. Vanessa (White, female, 22) talked to her roommate who was getting married and had never been to a gynecologist. They talked about what to expect at her first visit and what Vanessa had learned from class. In some cases, this support goes beyond talking. Stephanie
(White, female, 19) had a friend who thought she might be pregnant, so they went to the
doctor together.

3.7. Peer Communication Norms

Unlike the other categories that focused on what students were discussing, this
category focuses on how they were having those discussions. This category includes:
Storytelling, Humor, Multiple Modes, Underreporting, Misogynistic Language, and
Reversed Position. Each of these labels is described below along with examples that
illustrate how the label was used. Each label name begins with “3.7.x Peer
Communication Norms:” to indicate the category to which the label belongs.

3.7.1 Peer Communication Norms: Storytelling. This label was used when
students described when they or their peers told stories about sexual experiences or
sexual health. Students told stories about positive and negative sexual experiences, sexual
health decisions, risky behaviors, STIs, and pregnancies. This label was applied to 44
submissions from male students and 90 submissions from female students.

In some cases, stories lead to sharing information from the sexual health course.
For example, Aaron (White, male, 19) was talking to some friends about negative sexual
experiences and then “it turned into something that I learned in class and I was informing
them.” There were multiple submissions from other students who listened to a peer
describe a regretted sexual experience and then provided sensible advice about the
morning after pill, getting tested for STIs and pregnancy, or going to see a doctor. In
other cases, students described the risky sexual activity of someone they knew and then
drew upon class materials to describe risks and encourage healthier options.
In other cases, class information or activities lead to storytelling. In one class activity, Lisa (White, female, 20) wrote a letter addressed to her parents telling them that she was HIV positive. Lisa discussed this activity with her friends and they all described what they would do. Some of the other storytelling sessions were triggered by the regretted sex survey in the sexual health course. Natalie (White, female, 22) had her roommate take the regretted sex survey and then they talked about negative sexual experiences that involved alcohol. Vanessa (White, female, 22) recognized this connection between the course and storytelling saying, “I have learned a lot of information through [the sexual health course] and I like to share it with my fellow peers! Of course once you start discussing information, someone always has a story.”

Stories also lead to other real stories and hypothetical situations. Ryan (White, male, 21) and his friends talked about a friend whose girlfriend is pregnant. They reflected on their prior risky sex experiences, discussed what they would do if they got someone pregnant, and talked about steps they would take to be more careful. Kristen (White, female, 21) and a group of peers shared funny or negative stories with each other. Kristen said, “after telling a story, we each would offer support or praise or laugh.”

3.7.2 Peer Communication Norms: Humor. This label was used when students talked to their peers and said that some form of humor was part of the discussion. Students described some of their peer discussions as joking around, sharing funny stories, or telling stories and laughing about them. This label was applied to 7 submissions from male students and 10 submissions from female students. The discussions were triggered by a personal experience and were related to negative or awkward sexual experiences, characteristics of previous partners, and pregnancy.
Most of the submissions with this label also had the label “4.2 Feelings about Sex: Negative Experiences.” Heather (White, female, 22) was describing a recent sexual situation that she found to be awkward. Her friends “mostly just laughed and agreed they would not have known what to do.” Aaron (White, male, 19) said that he and his friends shared negative experiences because they were “just entertaining each other and telling humorous stories.” In a storytelling session, Kristen’s (White, female, 21) roommate described a story where she fell asleep during sex and the group “offered her support, but also laughed at her.”

Some students seemed to deal with their pregnancy fears through humor. Kathryn (White, female, 22) said that her roommate’s period was late and they “were half joking about the possibility of her being pregnant and her options.” When Katherine (White, female, 22) and her peers said that they didn’t want kids and “if one of us gets pregnant we will push them down the stairs.”

3.7.3 Peer Communication Norms: Multiple Modes. This label was applied to submissions where students reported using three or more modes of communication. This label was applied to 8 submissions from male students and 11 submissions from female students. In all of these cases, face-to-face communication was one of the modes used. Text messages and phone calls were also very common modes employed by the students.

Most of the discussions were triggered by the experience of a friend, usually either related to pregnancy or a negative sexual experience. Scott (Hispanic/Latino, male, 22) talked to his friends through face-to-face discussions, texting, and phone calls. They had a friend who was pregnant and they were sharing information and discussing what they would do in the same situation. Kristen (White, female, 21) had two submissions
where she used face-to-face communication and texting along with either a phone call or instant messaging service. In the first one, she was helping her roommate who had a negative sexual experience and thought she was pregnant. In the second one, she was helping a friend who had been diagnosed with a yeast infection.

The use of multiple modes may be a combination of an experience with a long-term consequence, such as becoming pregnant or contracting an STI, and the location of the person or people affected. For example, Ryan (White, male, 21) talked to his friends face-to-face as well as through phone calls and text messages. These discussions were triggered by the unexpected pregnancy of a friend’s girlfriend. In his submission, Ryan said, “The topic of safer sex came up this week during a discussion with a few of my friends from back home [emphasis added].” Ryan and his friends may have been using multiple modes because they were geographically separated when Ryan began attending the university.

3.7.4 Peer Communication Norms: Underreporting. This label was used to mark submissions where students indicated on the survey’s multiple-choice questions that they did not talk to their peers or did not share class information with peers, yet described doing so in the open-ended questions. This label was applied to seven submissions from male students and eight submissions from female students. The submissions that were underreported covered a variety of topics such as circumcision, condom use, STIs, birthing options, and negative sexual experiences.

Matthew (White, male, 20) indicated that he didn’t talk to his peers about sexual health, but also said that he talked to his peers to see what they thought about circumcision. Nathan (White, male, 20) talked to his girlfriend having sex and talked to
some friends about a regretted sexual experience, but also indicated that he did not talk to his peers about sexual health in his survey submissions. In the second submission, Nathan explains, “I did not talk about sexual health. I keep that part of my life between my partner and I [sic].” Lauren (Asian, female, 21) talked to a group of men about circumcision, but indicated that she did not talk to peers about sexual health. During this same survey submission, Lauren wrote, “I don’t really talk to my peers about sexual experiences, etc. I only talk to my really close friends about that kind of stuff.” Despite this statement, Lauren reported sharing sexual health information with her peers many times throughout the semester.

3.7.5 Peer Communication Norms: Misogynistic Language. This label was applied to three submissions where students used derogatory language in reference to women. All three came from male students and were submitted during surveys three and four. In all three cases, the male students made a reference to their activities during spring break.

Brian (White, male, 21) talked to his friends about the need to use condoms during spring break so they “don’t get STI’s from the whores we bang.” While it is possible that Brian and his friends were planning to have sex with prostitutes, it is more likely that they were referring to college-aged women who they were planning to meet during a spring break trip. Jeremy (White, male, 21) and his friends went to Cancun for spring break and said that he and his friends “needed to wear condoms with these nasty bitches.” Sean (Hispanic/Latino, male, 23) said that he and his friends “simply made jokes about STI’s and condoms because we were going to vegas and there are a lot of dirty girls out there.”
3.7.6 Peer Communication Norms: Reversed Position. This label was applied to seven submissions from one male student, Ryan (White, male, 21). Of all the students in the course, Ryan was the most vocal in his repeated belief that “most all heterosexual guys rarely talk about [sexual health],” instead, he said that they joke around and talk about physical appearances in “a juvenile or male pig viewpoint.” He added, “Topics such as safe sex, STIs, or pregnancy normally do not come up in a discussion.” However during the ninth survey, Ryan found out that a friend got his girlfriend pregnant and their discussions changed. In the ninth through eleventh surveys, Ryan and his friends began to discuss their previous risky behavior, desire to avoid pregnancy, STI symptoms, getting tested for STIs, and using condoms consistently.

Conceptual Framework

There are many ways to model the relationships between the concepts described by students. In Figure 3-1, I have created a concept map that with peer support as the main concept of focus. In this map, the circles represent concepts such as Negative Sexual Experiences and Hormonal Birth Control and the arrows represent the relationships between those concepts. A larger version of Figure 3-1 is presented in Appendix C.
Figure 3-1: Concept map centering on Peer Support that illustrates the relationship between key concepts in peer sexual health communication.

This concept map represents possible paths based on student descriptions of their peer sexual health communication experiences. For example, information from the sexual health course enabled students to provide comfort and information to peers who had a negative experience and were afraid of contracting an STI. Based on that fear, students were able to provide information about STI risks as well as testing and treatment options. This concept map is useful when discussing relationships between concepts in Chapter 5.
Chapter 4

Results

This chapter presents evidence related to the research questions based on the findings from the quantitative and qualitative methods described in Chapters 2 and 3. Each research question was analyzed using a primary quantitative or qualitative method. Significant results are presented for each question along with charts to illustrate patterns and group differences. Notes from the qualitative induction process are included along with the quantitative results where relevant. In Chapter 5, the quantitative and qualitative results are combined when discussing each question. This combination of quantitative and qualitative results provides a holistic perspective into each research question.

RQ1. In what ways are college students’ demographic characteristics associated with the frequency of sexual health communication?

An ordinal logistic regression was run to determine if age, gender, sexual orientation, or racial/ethnic background were associated with significantly different frequencies of sexual health communication. The only statistically significant result was that women had more frequent sexual health communication than men ($p < .05$). Table 4-1 presents the results of the ordinal logistic regression. Based on these results, women are 2.35 times more likely to report a higher frequency of peer sexual health discussions than men.
Table 4-1: Results of ordinal logistic regression examining differences in frequency by demographic characteristic.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.04</td>
<td>0.76 - 1.41</td>
</tr>
<tr>
<td>Gender</td>
<td>2.35*</td>
<td>1.05 - 5.25</td>
</tr>
<tr>
<td>Orientation</td>
<td>1.38</td>
<td>0.30 - 6.32</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>1.21</td>
<td>0.43 - 3.42</td>
</tr>
</tbody>
</table>

* p < .05

The percentages of female and male students with each response are presented in Figure 4-1. This finding is consistent with observations from the qualitative induction process, where I noted several cases where the female students described multiple conversations with different parties (e.g., a sister, a roommate, and a group of friends) during the same week.
Figure 4-1: Percentage of female and male students by the frequency with which they reported having sexual health discussions with their peers in the past week.

RQ 2. In what ways are college students’ demographic characteristics associated with the type of sexual health topics they discussed with their peers?

A series of binary logistic regressions were run to determine if there were any demographic characteristics associated with each of the topics listed as options (Safer Sex/Condoms/Contraception, STIs/HIV, Pregnancy/Pregnancy-Prevention, and Regretted Sex/Alcohol and Sex/Unwanted Sex). While there were no statistically significant results at the \( p < .05 \) level, there was a near significant finding \( (p = .053) \) where non-heterosexual students’ discussed Safer Sex/Condoms/Contraception with their peers more than heterosexual students. Table 4-2 shows the output for the binary logistic regression looking at the demographic characteristics of students who talked about Safer Sex/Condoms/Contraception.
Table 4-2: Results of binary logistic regression examining differences in discussions of safer sex/condoms/contraception by demographic characteristic.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.15</td>
<td>0.80 - 1.65</td>
</tr>
<tr>
<td>Gender</td>
<td>1.45</td>
<td>0.61 - 3.47</td>
</tr>
<tr>
<td>Orientation</td>
<td>8.87*</td>
<td>0.98 - 80.63</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>2.43</td>
<td>0.75 - 7.85</td>
</tr>
</tbody>
</table>

* p = .053

This near significant finding indicates that non-heterosexual students may discuss safer sex, condoms, and contraception may have been statistically significant if there were a larger sample size or a larger proportion of non-heterosexual students in the course. To get a sense of why this result is worth investigating further, Figure 4-2 shows the percentage of heterosexual and non-heterosexual students who discussed Safer Sex/Condoms/Contraception.

![Figure 4-2: Percentage of heterosexual and non-heterosexual students who discussed the topic Safer Sex/Condoms/Contraception.](image-url)
RQ 3. In what ways are college students’ demographic characteristics associated with the modes (e.g., in person vs. via technology) they use to discuss sexual health information with their peers?

A series of binary logistic regressions were run to determine if there were any demographic characteristics associated with modes of communication students used to discuss sexual health information with their peers. The modes that students could indicate using were Face to Face Discussion, Online - Blog, Online - E-mail, Online – Instant Messaging (AIM, Yahoo Messenger, MSN Messenger), Online – Social Network (Facebook, MySpace, etc…), Telephone – Phone Call, and Telephone – Text Message. The binary logistic regressions did not result in any statistically significant differences based on demographic characteristics. Figure 4-3 shows the percentage of students who indicated using each of the modes. Note that no students indicated that they used a blog for peer sexual health communication.

Figure 4-3: Percentage of students who used each mode of communication.
The qualitative induction process did not indicate any demographic patterns in the communication modes used. However, there were patterns related to the events that triggered peer sexual health discussions. This was particularly noticeable in cases when students were helping a peer in crisis. In those cases students tended to use multiple modes of communication (see 3.7.3 Peer Communication Norms: Multiple Modes in Chapter 3).

**RQ 4. In what ways are college students’ demographic characteristics associated with the positive or negative tone of college students’ sexual health communication with their peers?**

An ordinal logistic regression was run to determine if there were any demographic characteristics associated with positive or negative tone of students’ sexual health communication with their peers. There were no statistically significant differences based on demographic characteristics. Figure 4-4 shows the percentage of students who responded at each level of tone. Note that no students indicated having a “very negative” tone.
RQ5: How do students describe their experience with peer sexual health communication?

This question was primarily examined using the qualitative induction process.

Before reviewing the data, I had four hypotheses. Each hypothesis is listed below along with relevant findings. In addition to these hypotheses, three other findings related to peer sexual health communication are described.

**Hyp 5.1 Peer sexual health discussions are often tied to life events, either of the participant or someone close to them.** Throughout the semester, students described cases where they had peer sexual health discussions that were triggered either by their
own experiences or the experiences of their peers. In the safer sex category, students had the experience of making decisions about safer sex practices for themselves or advising peers on their choices. Regarding sexually transmitted infections, students talked to their peers who had put themselves at risk for contracting an STI and needed to get tested, peers who had actually contracted an STI recently or in the past, and peers who were being or had completed treatment for an STI. Several students talked to peers about pregnancy, mostly because they knew people who were concerned about being pregnant or who were actually pregnant.

Students’ discussions about their feelings about sex were often related to their own positive and negative experiences. When students talked to peers about sexual variety, they often discussed sexual acts that they had performed or were considering performing as well as materials that they had used or were considering using. Given these accounts from students in the sexual health course, there is evidence supporting Hyp 5.1: Peer sexual health discussions are often to life events, either of the participant or someone close to them.

Hyp 5.2: In peer sexual health communication, students will reference the content, discussions, and activities from the sexual health course. When students discussed sexual health with their peers, some students directly referenced the content, discussions, and activities in sexual health course. For example, Lisa (White, female, 20) reported that some of her friends were curious about what she was writing. Lisa said, “I told my friends about the assignment we had to do in small group about writing the letter to my parents telling them I have HIV.” Eric (White, male, 22) talked to his friends about a condom lecture in the course, “because it was the most interesting small group so
far this semester.” Other examples include discussions of pictures of sexually transmitted infections shown in class, the circumcision video, the regretted sex survey, the condom use demonstration, and the condom survey. In these cases, the primary focus of the discussion was on the information and meaning of the content and activities instead of a discussion about the sexual health course. These examples support Hyp 5.2: In peer sexual health communication, students will reference the content, discussions, and activities from the sexual health course.

Hyp 5.3: Peer sexual health communication may be triggered by television and other sources of news and entertainment. Throughout the semester, there were only a few submissions where the trigger for the discussion was something in the media. The peer discussions that did happen based on the media included a news report about abortion legislation, a story about a woman giving birth to octuplets, and an episode of the Sex and the City television show. This does provide evidence to support Hyp 5.3: Peer sexual health communication may be triggered by television and other sources of news and entertainment. However, peer sexual health communication seems less likely to be triggered by the media when compared with much more common triggers such as life events and course activities.

Hyp 5.4: Students will take information from the sexual health course and share it with their peers. Some student submissions referenced specific cases where they shared information from the course with their peers. Students reported sharing information in a variety of contexts such as joking around and then sharing facts from the course, using statistics from the course to help convince a peer to use condoms, and sharing information from the course about STIs. For example, Heather (White, female,
22) said, “I have showed [sic] my friends the [course] text book and some of the information on birth control methods and STIs.” This evidence supports Hyp 5.4: 

Students will take information from the sexual health course and share it with their peers.

**Safer sex equates to condoms for men.** The percentage of students who talked to their peers about condoms was roughly equivalent for male and female students. The label “1.3 Safer Sex: Condoms” was applied to 31.1% of all submissions from male students and 29.5% of all submissions from female students. However, there was a noticeable difference with the label “1.1 Safer Sex: Decision Making” where female submissions outnumbered male submissions 58 to 10. This difference appears to be due to the options available to male and female students as well as the control they have over those options. For female students, they have a choice to use condoms or a form of hormonal birth control. In some cases, female students choose both. For male students, condoms are the only form of safer sex practice that they feel like they can control.

**Menstruation seen as “not pregnant.”** Female students who discussed menstruation with their peers often mentioned it in a positive light. For them, getting their period was a definitive signal of not being pregnant. Conversely, a late period was seen as a cause for concern due to a fear of being pregnant. Stephanie (White, female, 19) addressed this perception directly, “We were talking about Depo the BC shot because you don’t get any periods. Also, my friend told me she likes to get her period because then she knows she’s not pregnant.”

**Gay male student may be more likely to have sexual health discussions with both male and female peers.** Most students in the class reported having sexual health discussions with people of their own gender. However, the gay male students in the
course appeared to discuss sexual health with male and female peers. For example, Richard (White, male, 23, gay) talked to male peers about negative sexual experiences, erectile dysfunction, rapid ejaculation, STIs, and male anatomy. Richard also talked with female peers about safer sex and STIs. He added, “It was a straight-girl to Gay-guy conversation about men, sex with men, all about sex with men, ugh.” This may have also been true for Kevin (White, male, 20, Gay). He had discussions with female friends about pregnancy, female anatomy, differences in sex drive, threesomes, the HIV status of a friend, and various sexual acts. However, the data is unclear as to whether Kevin discussed sexual health with male peers since he didn’t often use pronouns when referring to his friends.

**RQ6. Do college students have more frequent discussions of sexual health as they progress through a course on human sexuality?**

An ordinal logistic regression with repeated measures was run to determine if the frequency of peer sexual health discussions changed by the end of the semester. The results were also examined to see if there were any differences based on demographic characteristics. Contrary to my expectations, the frequency with which students reported having sexual health discussion with their peers showed a significant ($p < .001$) decrease over the course of the semester. The course had a statistically significant effect on the longitudinal change in frequency ($F(1,688)=51.9$, $p<0.001$). Specifically, students’ frequency of discussion decreased as the course processed ($\text{OR} = 0.83$, 95%CI: 0.79-0.87). None of the demographic factors were statistically significant. Table 4-3 shows the results of the ordinal logistic regression.
Table 4-3: Ordinal logistic regression with repeated measures examining the change in frequency of peer sexual health discussions over time.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.01</td>
<td>0.85 - 1.42</td>
</tr>
<tr>
<td>Gender</td>
<td>1.28</td>
<td>0.73 - 2.26</td>
</tr>
<tr>
<td>Orientation</td>
<td>1.24</td>
<td>0.20 - 7.87</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>1.07</td>
<td>0.55 - 2.09</td>
</tr>
<tr>
<td>Week-Only</td>
<td>0.86*</td>
<td>0.82 - 0.90</td>
</tr>
</tbody>
</table>

* p < .001

Figure 4-5 shows the percentage of respondents who indicated each level of frequency.

This figure shows an upward trend of students who reported that they did not talk to their peers about sexual health.
Figure 4-5: Percentage of students who reported each level of frequency with which they had discussions with peers about sexual health.

These quantitative results, however, should be considered along with the results from the inductive process. In the open-ended questions (see 3.7.4 Peer Communication Norms: Underreporting in Chapter 3) there were some examples where students reported that they did not talk with their peers about sexual health, but proceeded to describe such a sexual health discussion. This type of example suggests that students may have underreported the overall frequency of their discussions throughout the semester.

**RQ7. To what extent are the topics of college students’ discussions of sexual health influenced by the sequence of topics in a course on human sexuality?**

Four binary logistic regression with repeated measures were run to determine whether the were changes in the number of students who reported discussing Safer Sex/Condoms/Contraception, STIs/HIV, Pregnancy/Pregnancy-Prevention, or Negative Sexual Experiences. The results of these four binary logistic regressions are shown in Table 4-4. Based on these results, the number of students reporting that they discussed of Safer Sex/Condoms/Contraception, Pregnancy/Pregnancy-Prevention, and Negative Sexual Experience with their peers all had significant decreases over the course of the semester.
Table 4-4: Results of four binary logistic regressions with repeated measures exploring the change in discussions of four primary sexual health topics over time.

<table>
<thead>
<tr>
<th>Sexual Health Topic</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safer Sex/Condoms/Contraception</td>
<td>0.83*</td>
<td>0.78 - 0.87</td>
</tr>
<tr>
<td>STIs/HIV</td>
<td>1.04</td>
<td>0.97 - 1.11</td>
</tr>
<tr>
<td>Pregnancy/Pregnancy-Prevention</td>
<td>0.80*</td>
<td>0.74 - 0.87</td>
</tr>
<tr>
<td>Negative Sexual Experiences</td>
<td>0.77*</td>
<td>0.69 - 0.86</td>
</tr>
</tbody>
</table>

* $p < .001$

In addition to these analyses, Figure 4-6 shows the percentage of students who reported discussing each of the four sexual health topics per week. In this graph, there is a steady decrease in the percentage of students who reported discussing Safer Sex/Condoms/Contraception, Pregnancy/Pregnancy-Prevention, and Negative Sexual Experiences. While there was no statistically significant change in the discussion of STIs/HIV throughout the course of the semester, there was a notable variation in the proportion of students who discussed this topic week to week.
Figure 4-6: Percentage of students who discussed sexual health with peers who indicated discussing each topic.

Z-tests were run to determine whether there were statistically significant changes associated with the weeks surrounding the discussion of a topic. These Z-tests compared the proportion of students who discussed a topic during the week before the topic was introduced to the proportion of students who discussed that topic during the week after it was introduced.

**Safer Sex/Condoms/Contraception.** This topic was introduced to the class during survey week 2. A Z-test was run to compare the proportions of the class that discussed this topic in week 1 and week 3. This difference was not significant ($z = -.70$, $p = .48$, two-tailed).
**STIs/HIV.** This topic was introduced to the class briefly during survey week 2, but the main emphasis on this topic was during survey week 6. A Z-test was run to compare the proportions of the class that discussed this topic in week 5 and week 7. There was a significant ($z = -2.97, p = .003$, two-tailed) increase in the proportion of students discussing STIs/HIV during the week after this topic was covered in the sexual health course. The responses to the open-ended comments indicated that students’ previous sexual health education focused more on pregnancy than STI information. Much of the STI content discussed in the sexual health course was new information for students and their peers.

**Pregnancy/Pregnancy-Prevention.** Pregnancy was discussed before the surveys began, so no Z-test is possible to compare the discussion of this topic before and after it was introduced. Pregnancy-Prevention was discussed during survey week 4. A Z-test was run to compare the proportions of the class that discussed this topic during week 3 and week 5. There was a significant ($z = -2.02, p = .043$, two-tailed) increase in the proportion of students discussing Pregnancy/Pregnancy-Prevention during the week after this topic was covered in the sexual health course.

**Negative Sexual Experience.** This topic was covered during survey week 9. A Z-test was run to compare the proportions of the class that discussed Negative Sexual Experience in survey weeks 8 and 10. There were no significant differences ($z = .5, p = .62$, two-tailed).

**RQ8. Does the tone of college students’ discussions of sexual health become more positive as they progress through a course on human sexuality?**
An ordinal logistic regression with repeated measures was run to determine if there were any statistically changes in the positive or negative tone of peer sexual health communication over the course of the semester. The results were also examined to see if there were any differences based on demographic characteristics. Based on the results, shown in Table 4-5, there was no significant effect of the course on the longitudinal change in tone (F(1,276)= 0.00, p=0.98; OR=1.0, 95%CI:0.93-1.07), overall or for one particular demographic group.

Table 4-5: Ordinal logistic regression with repeated measures examining the change in positive or negative tone of peer sexual health discussions over time.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.28</td>
<td>0.99 - 1.65</td>
</tr>
<tr>
<td>Gender</td>
<td>0.75</td>
<td>0.42 - 1.35</td>
</tr>
<tr>
<td>Orientation</td>
<td>1.41</td>
<td>0.84 - 2.36</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>1.02</td>
<td>0.43 - 2.43</td>
</tr>
<tr>
<td>Week-Only</td>
<td>0.98</td>
<td>0.91 - 1.05</td>
</tr>
</tbody>
</table>

Note: No significant results were found at the p < .05 level.

To understand the tone of peer sexual health discussions across the semester, I plotted responses to each level of tone, as seen in Figure 4-7.
Figure 4-7: Percentage of students who reported each level of the positive or negative tone of discussions with peers about sexual health (with all levels shown).

To make trends clearer, I collapsed the two negative responses (“very negative” and “somewhat negative) and two positive responses (“very positive” and “somewhat positive”) together and plotted the graph again, as see in Figure 4-8.
Figure 4-8: Percentage of students who reported each level of the positive or negative tone of discussions with peers about sexual health (with combined positive and negative responses).

This figure shows that the tone of peer sexual health discussions was more positive than negative throughout the semester, but fluctuated throughout the semester. In particular, the last three weeks of the semester appeared to become more positive. I ran Z-tests to compare the proportion of students who reported a positive, neutral, or negative tone between survey weeks 8 and 10. The proportion of students reporting a positive tone significantly ($z = -2.83, p = .005$, two-tailed) increased. The proportion of students reporting a neutral tone significantly ($z = 2.43, p = .002$, two-tailed) decreased. The proportion of students reporting a negative tone was not found to change significantly ($z = .986, p = .322$, two-tailed). From the qualitative induction, we know that many of these
discussions were triggered by life events. It is likely that the positive or negative tone of a peer sexual health discussion is more strongly tied to the triggering event than course effects.

My interpretation of these results is discussed in greater depth in Chapter 5. In addition, I describe the implications of these results on research and teaching practice. This includes a summary of limitations of the current study and recommendations for replicating and improving upon these methods.
Chapter 5

Discussion

Most of the courses taken by college students are preparing them for a future as a working adult. In contrast, courses on sexual health are immediately relevant, especially to the majority of college students who are sexually active. Even those who are not engaging in sexual activity can benefit from information on topics such as testicular cancer, yeast infections, and menstrual cycles. Furthermore, they will understand their options and risks if they choose to become sexually active in the future.

Unfortunately, not all students take courses on sexual health. Because students are most likely to turn to their peers to ask questions and share experiences, this study sought to understand three aspects of peer sexual health communication: the characteristics of students who are more likely to share sexual health information with their peers (i.e. super-peers), the contextual factors surrounding peer sexual health communication, and the effects of a sexual health course on peer sexual health communication. Each of the eight research questions in this study were designed to examine some aspect of peer sexual health communication. The first four questions were focused on how peer sexual health varied based on student demographic characteristics at the beginning of the semester. The fifth question was designed to examine how students described their experience of peer sexual health communication. The sixth through eighth questions examined the effects of a sexual health course on peer sexual health communication. In this chapter, I discuss the findings, their implications for research and teaching, limitations of this study, and key targets for future research.
Discussion of Research Questions

In this section, I discuss the findings of each research question on its own, drawing upon the literature review and both quantitative and qualitative results as needed. Following this section, I discuss the findings for each research focus along with implications for teaching practice and areas for further research.

RQ1. In what ways are college students’ demographic characteristics associated with the frequency of sexual health communication?

Previous research has shown that women have more frequent discussions about sexual health with their peers (Lefkowitz, Boone, & Shearer, 2003; Rittenour & Booth-Butterfield, 2006). The results of this study were consistent with those findings. At the beginning of the course, female students were found to have significantly \((p < .05)\) more frequent peer sexual health discussions. The greater frequency of peer sexual health discussions among women is likely to depend on a combination of biological and cultural factors. A broader range of sexual health topics covered in formal education programs and informal health promotion campaigns are focused on women. For example, the various forms of the Human Papillomavirus (HPV) have been found in 42% of women aged 14 to 59 (Centers for Disease Control and Prevention, 2012). Due to the link between HPV and cervical cancer, young women have been encouraged to get an HPV vaccine before the onset of sexual activity. In addition, menstruation may act as a regular trigger for women think about sexual health whereas there is no equivalent for men. Likewise, in America, young women are encouraged to see a gynecologist on an annual basis, especially once they become sexually active. For example, the U.S. Department of Health and Human Services has established a web site called girlshealth.gov, which
encourages girls and young women to see a gynecologist, family doctor, or pediatrician to learn about puberty and their bodies, understand what is normal and what is a warning sign, identify and treat problems, and learn how to prevent pregnancy and STIs if they have sex (see http://girlshealth.gov). No such equivalent government-run site exists for boys and young men. Choice is another factor. When young women see their doctors, they have an opportunity to discuss a variety of contraceptive options and get a prescription, shot, or implanted device if needed. In comparison, young men don’t have a variety of contraceptive options and would be discouraged from considering a procedure such as a vasectomy. In short, much of the public dialog surrounding sexual health is focused on women because they are more greatly impacted by sexual health issues such as menstruation, pregnancy, many STIs, and contraceptive options.

The findings from the qualitative induction process further supports this connection between women’s more frequent discussions of sexual health and female-focused sexual health events. In the open-ended responses to the survey, women talked with their peers about menstruation, both in terms of pregnancy and in relation to hormonal birth control options. For the male students, menstruation was only mentioned a few times, and in all cases, those were related to their own desire for sexual gratification. The female students also reported having discussions with their peers that were triggered by visits to their doctor, choosing between contraceptive options, knowing someone who had contracted an STI, and pregnancy scares. These triggers were practically nonexistent for male students. In contrast, discussions of topics such as negative sexual experiences and condoms were evenly distributed between male and female students because they are equally experienced and relevant regardless of gender.
Peer sexual health communication must be understood within the context of the group of peers having the discussion and the range of possible topics for that group. Many of the discussions described in the survey were triggered by life events. Because women experience more triggers based on biology (menstruation, risk for pregnancy and STIs) and culture (expectations for doctor visits, targeted public health campaigns, wider range of contraceptive options), they may have more opportunities to discuss sexual health with their peers. For men, sexual health is a less complicated topic and therefore there is less for them to discuss. For example, since the male students generally considered condoms to be their only option for safer sex, they did not have a motive for debating the merits of condoms versus birth control pills.

I hypothesized that there may also have been some demographic differences in the frequency of sexual health discussions based on sexual orientation and race/ethnicity due to non-heterosexual and non-White students being in the minority and having a corresponding sense of social isolation. There were no statistically significant differences based on quantitative analyses. Social isolation based on sexual orientation and race may not have been enough of a barrier to have a statistical influence on the frequency of peer sexual health communication. In addition the increased availability of technology that connects people to their network of friends may mitigate social isolation that would otherwise exist due to geographical distance. In the qualitative results, students of all backgrounds reported talking to people in their hometowns throughout the semester.

The frequency of peer sexual health discussions was expected to increase with students’ ages for two reasons. First, the percentage of young people who are sexually active increases with age. Second, at the age of 21, students gain access to social venues
such as bars and clubs where alcohol is served. There were no statistically significant differences in the frequency of peer sexual health communication based on age. One possibility is that the relatively small age range of this population (18 to 25 years old) and their common status as college students puts them in a fairly homogeneous category of maturity and available partners. A sample with a broader age range, such as 13 through 35, may have resulted in significant differences.

**RQ 2. In what ways are college students’ demographic characteristics associated with the type of sexual health topics they discussed with their peers?**

I was expecting to see demographic differences in the topics discussed by students in the first survey. No statistically significant differences in topics discussed were found in the quantitative analysis based on students’ age, gender, orientation, or race/ethnicity. However, there were interesting findings from the qualitative indication process that provide some insights into why this was the case.

Older students were expected to discuss negative sexual experiences more than younger students because they were likely to have more sexual experiences. No significant differences were found in the discussion of negative sexual experiences based on student age. This null finding may be related to the limited range of student ages (18 to 25 years old) and the common experience of being unmarried and sexually active. A sample with a wider age range (e.g., 14 to 35 years old) may have provided different results as the participants became sexually active for the first time and transitioned into maturity and independence. The findings from the qualitative inductive process also indicate that students often talk to their peers about their most recent experiences instead of the sum total of lifetime experiences. A younger student with a smaller number of
sexual experiences may be more likely to discuss a recent negative sexual experience with peers than an older and more experienced student who is not currently sexually active. Furthermore, the quantity of sexual experiences may not be as much of a factor as the impact of a single negative experience. For example, Megan (White, female, 20) indicated that she had a discussion about a negative sexual experience with a friend who had just lost her virginity. In this case, her friend had a single sexual encounter that triggered this discussion because it was recent and negative. Megan’s age and sexual experience had little to do with this discussion since it was her friend who had the negative experience. Based on these observations and examples, situational factors, rather than age, appear to drive peer discussions of negative sexual experiences.

I expected women to discuss “Pregnancy/Pregnancy-Prevention” more than men. This was not supported by the quantitative analyses. However, two factors seem likely to have contributed to this null funding. For one, pregnancy had just been covered in the sexual health course before the first survey was administered. That being the case, the topic should have been fresh in the minds of all students, whether they were male or female. Secondly, “Pregnancy” and “Pregnancy-Prevention” are different from each other and contain nuances in meaning. In the open-ended responses, students talked about the pregnancies of people they knew, the economic and social impact of an unexpected pregnancy, pregnancy scares, and emergency contraception. These were not always negative. For example, Jonathan (White, male, 25) reported talking about pregnancy on every survey because he and his wife were expecting the birth of their son. On the other hand, open-ended responses related to pregnancy prevention were closely connected to safer sex practices and the desire not to become pregnant. Overall, pregnancy and
pregnancy-prevention are complex topics that are relevant to women and men, although in different ways.

No differences in the discussion of “Safer Sex/Condoms/Contraception” were expected due to sexual orientation. While not quite meeting the defined level of statistical significance, there was a near statistical significance finding \( (p = .053) \) that indicates that non-heterosexual students may discuss safer sex, condoms, and/or contraception more than heterosexual students. This is an interesting trend considering how few non-heterosexual students were in this sample. In the open-ended responses, gay male students talked about the importance of practicing safer sex and protecting themselves from STIs with an emphasis on condoms. This is likely a result of safer sex programs targeted toward gay men and the prevention of HIV/AIDS.

Non-heterosexual students were expected to discuss “Pregnancy/Pregnancy-Prevention” less than heterosexual students. This was not supported by the quantitative analysis. This may be because gay men discuss sexual health with women, a possibility which was supported by the qualitative induction process. Based on the open-ended reports I found that the gay male students in this research reported discussing sexual health with female peers. For example, Kevin (White, male, 20, gay) reported in multiple surveys that he was spending time with a friend who had become unexpectedly pregnant. Kevin was helping her cope with the consequences because, “her boyfriend of a year wants nothing to do with her.” In short, gay men may be discussing pregnancy and pregnancy-prevention because they are acting as confidants and providing support for female friends. This is consistent with findings from the qualitative induction process where gay men tend to discuss sexual health with both male and female peers.
RQ3. In what ways are college students’ demographic characteristics associated with the modes (e.g., in person vs. via technology) they use to discuss sexual health information with their peers?

I expected to find demographic differences in the modes that students used to discuss sexual health. There were no statistically significant differences discovered through the quantitative analysis. However, based on the qualitative analyses it was clear that students greatly preferred to discuss sexual health face-to-face. Allison (White, female, 21) described why she prefers to talk face-to-face, “It’s better this way because they don’t have documentation and can show everyone exactly what I say.” I interpreted this to mean that Allison didn’t want someone to have a copy of an e-mail chain or discussion through IM or texting that they would be able to share with other people. Allison wanted her discussions to remain private.

There were some exceptions to the preference for mode being face-to-face, which seemed to be more related to the geographic location of the person to whom the individual was talking, rather than demographic characteristics. For example, Nathan (White, male, 20) used phone calls and text messages only. He reported, “I talked with my girlfriend who is coming home, whom [sic] I haven’t seen for a while. We talked about having sex.” In this case, the location of Nathan’s girlfriend necessitated communicating using the phone calls and text messages. Another exception to students’ preference for face-to-face communication appears to be related to urgency. During the qualitative induction process, submissions where students reported using three or more modes of communication were labeled “Multiple Modes” (see 3.7.3 Peer Communication: Multiple Modes in Chapter 3). There were 19 submissions with this
label, and nearly all of those were connected to friends who were experience a crisis due to a pregnancy, pregnancy scare, or an STI infection. A plausible explanation for this phenomenon is that students use multiple communication modes to provide immediate support for friends in crisis instead of waiting to see them face-to-face. Throughout the crisis period, students continue to use technology-mediated communication to check in, to provide support, get updates, and give advice. This use of multiple modes appears to be a short-term phenomenon. No students used three or more modes of communication in consecutive weeks.

**RQ4. In what ways are college students’ demographic characteristics associated with the positive or negative tone of college students’ sexual health communication with their peers?**

I expected to find demographic differences in the positive or negative tone of peer sexual health discussions. I was expecting that women, White students, heterosexual students, and older students would have more positive tones. After examining the quantitative analysis, however, there were no statistically significant differences in positive or negative tone.

Based on the qualitative induction process, the tone of sexual health discussions appears to be function of the context of the discussion rather than demographic characteristics. In submissions with a “very negative” tone, students reported gossiping about the unexpected pregnancy of an acquaintance, discussions of regretted sex, contracting an STI, pregnancy scares, unsafe sexual behavior, getting an HIV test, and fighting over the confidentiality of the HIV status of a potential sexual partner. The common themes across these topics are regretted sex and negative consequences of
unsafe sex. In all of these cases, students talked to their peers about actual events that happened to themselves or someone they knew.

There were some instances where students had multiple sexual health discussions within the same week. For example, in survey eight, Kevin (White, male, 20, gay) reported having a funny discussion with his friends about him being the “token slut of the group” and getting into a fight with his father over abortion. In survey eight, Kevin reported the tone of his discussions as “somewhat positive”. It is unlikely that Kevin felt that both discussions had an equally positive tone. Kevin may have had a very positive discussion with his friends and a neutral or somewhat negative discussion with his father. However, the survey question only permitted students to submit one answer for the positive or negative tone. Therefore, Kevin may have picked “somewhat positive” to represent the mid-point between the positive or negative tone of those two discussions. Future research that examines the positive or negative tone of peer sexual health communication should be designed to account for cases where students can report having multiple conversations with differing tones.

**RQ5. How do students describe their experience with peer sexual health communication?**

This question was addressed primarily using the qualitative induction. The qualitative process lead to the identification of seven related categories that described what students discussed, what triggered those discussions, and other factors such as differences in meaning and the emotional states of those having the discussion. The seven categories are: Safer Sex, Sexually Transmitted Infections, Pregnancy, Feelings about Sex, Sexual Acts, Peer Support, and Communication Norms. Before conducting the
qualitative induction process, I hypothesized that I would find that peer sexual health communication was triggered by life events, course materials, and the media. I also expected to find that students were using course content and activities as part of their peer sexual health discussions. Those expectations and other insights that resulted from the qualitative induction process are discussed below.

**Life events.** I expected to find that peer sexual health discussions were tied to life events. This connection between life events and peer sexual health discussions was so evident that it appears to be the primary driver for the characteristics of peer sexual health communication that were analyzed in this study: frequency, topics, mode, and positive or negative tone. Students talk to their peers about things that are relevant to their lives. Women are more frequently affected by the topics in a sexual health course, so they have more relevant life event triggers. Examples of these triggers include missed periods and pregnancy concerns, gynecologist visits, and making choices about birth control. In fact, the need to take a birth control pill at the same time every day may be a constant low-level trigger for thinking about sexual health. As mentioned earlier, this can partially explain why several studies, including this one, show that women discuss sexual health more frequently with their peers than men. Likewise, using condoms and safer sex are relevant to gay men due to the emphasis on condoms and safer sex to prevent the spread of HIV, which is more prevalent in gay men. While the quantitative analysis looking at the connection between non-heterosexual students and Safer Sex/Condoms/Contraception did not meet the $p < .05$ requirement, it was near significance ($p = .053$), even though there was a small number of non-heterosexual students in the course. This near significant finding is worth investigating in future studies.
In addition to recent life events as triggers for peer sexual health discussions, there were several cases where students drew upon prior life events to build and reinforce social relationships. These storytelling sessions started in various ways, such as talking about a course topic or replicating a course activity, drinking with friends, joking around, someone asking for advice, or a recent positive or negative experience. For example, Anna (White, female, 21) described a situation where she was talking with a group of women and they were sharing information and answering questions for each other. Anna said, “It was a way for all of us to bond in a way, as women. We learned a lot about each other and shared a bunch of different experiences, information, and opinions on sex, safer sex, and STIs.”

One of the benefits of the qualitative induction process was that I was able to follow the stories being told by students from week to week and one of the most memorable stories dealt with a change in perspective based on a life event. In several surveys, Ryan (White, male, 21) was insistent that men don’t talk to each other about sexual health. This changed dramatically when a friend of his got his girlfriend pregnant toward the end of the semester. In subsequent survey submissions, Ryan reported that he and his friends talked often about pregnancy, pregnancy-prevention, and safer sex. This connection between the course, a life event, peer support, reflection, and future choices is shown in Figure 5-1, which is a sub-set of the complete concept map. In this figure, emphasis is placed on the life event (shown in Bold), which is this figure is represented as an unintended pregnancy or pregnancy scare.
Figure 5-1: Concept map sub-set illustrating the relationships between the safer sex course, a life event, peer support, and decisions about future safer sex options.

Transcending course content and activities. Students were expected to content and activities from the sexual health course and share course information with their peers. This also appeared to be true. Students described how they shared course statistics, showed their peers information in the textbook, used course information to advise their peers about STI prevention, and repeated course activities with friends and roommates. In addition, some students demonstrated impressive dedication to their peers when they transcended peer sexual health communication by helping their peers through a serious
life event. There were numerous accounts of students encountering peers in crisis, using course information to assess the situation, and providing both comfort and guidance through healthful steps such as testing and treatment. For example, Anna (White, female, 21) had a discussion with a peer who was sexually assaulted and demonstrated how peers are providing support to each other in a crisis:

I spoke to my friend who went through a sexual assault with alcohol involved. We discussed her options, pressing charges, and her feelings about the situation. I simply offered a compassionate listening ear, and advice about how to keep herself feeling strong and enabled.

Anna’s use of the word “simply” shows that she feels that her support is dwarfed by the magnitude of her friend’s experience and that this kind of support is something that one should expect from their friends. In addition to discussing legal action, Anna provided her friend with a safe space to discuss what had happened and emotional support to carry on in the aftermath.

There were other examples where students in the class described reacting to a life event by discussing the situation with their peers using course information and then actually taking them to a location to get health services. This included buying a pregnancy test, purchasing the morning after pill, and taking a friend to a doctor or clinic to get tested for STIs and pregnancy. Both male and female students provided course information, emotional support, and advice to peers. However, only female student described taking a peer to get testing and treatment. This may be because women are more concerned about becoming pregnant and are at higher risk for contracting STIs than
men. Figure 5-2 shows the relationship between course information, a negative sexual experience (shown in Bold), peer support, and treatment.

Figure 5-2: Concept map subset showing the relationship between course information, negative or unexpected life events, peer support, testing, and treatment.

In this diagram, the nodes such as “Doctor’s Office or Clinic” and “Pharmacy” have been added to illustrate slight differences in where students go to seek testing and treatment for
STIs versus pregnancy. In addition, “Morning After Pill or Abortion” is split into two separate nodes, based on differences in where someone would need to go to exercise those options.

**Discussions triggered by media.** Peer sexual health discussions were expected to be triggered by news stories, television shows, movies, Internet videos, and other forms of media. There were some cases where students described having discussions that were triggered by the media, but this was not a common trigger. An explanation for the weak relationship between media and peer sexual health communication is that news and entertainment media are not as personally relevant as stronger triggers such as life events. Serious life events, such as hearing that a friend is worried about being pregnant are immediate and emotionally charged issues. As demonstrated from survey responses, students react to these serious life events by providing advice and support. However, news and entertainment media are less immediate and less emotional. A television show where a fictional character is concerned about being pregnant may be a part of an interesting story, but there is no expectation or possibility of providing advice and support. In short, a friend’s problem is personally relevant, whereas the plight of a television character is not.

The connection between life events, course materials and activities, and media were a part of the hypotheses for this research question before the qualitative induction process was conducted. In addition to these, the qualitative induction process generated some additional insights, which were not predicted in advance. The generation of such new insights is one of the strengths of qualitative methods. These new insights are listed and discussed below.
**Differences in perceptions of safer sex.** Safer sex was a very common theme in peer sexual health discussions based on survey submissions from both male and female students. Various types of barrier and hormonal birth control were covered throughout the semester in the sexual health course. While female students discussed the full range of methods to prevent pregnancy and/or STIs, male students focused almost exclusively on condoms. This finding makes sense if one considers how options to prevent STIs and pregnancy are different for women and men. Women have several options for preventing pregnancy, which include using condoms, birth control pills, injections, patches, vaginal rings, and inter-uterine devices (IUDs). Of these options, using condoms is the only option that prevents pregnancy and most STIs. For women, safer sex has two levels of meaning:

- **Contraceptive-Only Safer Sex:** All hormonal and chemical means of preventing pregnancy, with additional benefits and possible side effects.
- **Complete Safer Sex:** Preventing pregnancy and STIs through the use of condoms.

Because women have options, they need to make choices. In the qualitative induction process, one of the most common labels was “1.1 Safer Sex: Decision Making,” which was applied to 58 discussions from women and 10 discussions from men. Most of the women’s submissions with this label included discussions various forms of birth control, choosing between options, using multiple options, proper use, additional benefits, and side effects. For example, Maria (Black, female, 18) talked to a group of friends about using birth control pills to control acne and have regular periods instead of just as a method of pregnancy-prevention. She added, “if your [sic] using the pill for regular
periods than you don’t have to take it the same time every day, unlike you are using the pill for prevention.” For women, safer sex is a complex topic to be discussed with friends and experts.

For the male students in the survey, safer sex was often equated with condoms. Currently, there are no male birth control pills, injections, patches, or devices on the U.S. market. Men have the option of talking to female partners about their STI status and contraceptive choices, but these conversations are not common during casual sexual encounters with a new partner. In addition, men may struggle with the fact that there is no guarantee that their partner is actually free of STIs or has been using their contraceptive method correctly. Therefore, from a man’s perspective, depending solely on information from an unfamiliar partner is not completely safe. This may explain why there seemed to be an inherent lack of trust and even the use of misogynistic language when male students discussed safer sex with male peers. For example, when Sean (White, male, 23) and his friends were getting ready to go to Las Vegas for a spring break trip, he said “We simply made jokes about STIs and condoms because we were going to vegas and their [sic] are a lot of dirty girls out there.” I interpret this to mean that Sean and his friends were planning to have sex with unknown and promiscuous partners, so they planned to use condoms so they wouldn’t contract STIs. This sentiment was also reported using misogynistic language by Brian (White, male, 21) who said, “We talked about the need to bring Condoms on Spring Break so that we don’t get STI’s from the whores we bang.”

There were only six submissions from male students who wrote about making choices between safer sex options. Three of these were discussions between male students and their girlfriends about the options they were choosing. One involved a group
of friends who were commenting about the risky behavior of a female friend who was sleeping with multiple partners. She was on birth control pills, but not using condoms. The group was concerned that she could be spreading STIs. Another discussion was a group of friends talking about the use of condoms versus birth control pills for people who were having casual encounters versus ones who were in committed relationships. The final one was from Ryan (White, male, 21) who was reflecting on the unexpected pregnancy of his friend’s girlfriend. The couple had been using condoms “almost always,” but she still became pregnant. Ryan concluded that using multiple forms of birth control would be a better choice if the couple wasn’t going to be consistent about condom use. In most of these exceptions, male students felt that using condoms was the only responsible choice for people who were not in committed relationships.

Figure 5-3 shows how safer sex decisions differ for female and male students. On the left, the female concept map includes hormonal birth control as an option and a separation between the concepts of STIs and Pregnancy. For most men, condoms are the only option that they can control. Because condoms prevent both STIs and Pregnancy, there isn’t as much of a separation between those concepts when men are making safer sex decisions.
Figure 5-3: Comparison of female and male concept maps showing differences in safer sex meaning and decision making.

**The meaning of menstruation.** Another unanticipated finding from the qualitative induction process was how female students and their peers discussed menstruation. Popular media portrays menstruation as an unpleasant, awkward, and embarrassing phenomenon. However, the female students in this study never discussed menstruation in a negative light. To the contrary, when menstruation was mentioned at all, it was described as welcome indicator of non-pregnancy. In one case, Stephanie (White, female, 19) was talking to a peer who said that she didn’t want to get a Depo-Provera shot to prevent pregnancy because it reduces or stops menstruation. Stephanie’s friend added that she likes menstruating because “then she knows she’s not pregnant.” In addition, some female students or their peers began to fear that they were pregnant if their
period was late. Figure 5-4 shows a subset of the concept map with menstruation added as a node (shown in Bold). In this sense, menstruation (or lack of it) acts as a life event that can trigger peer sexual health discussions and action.

Figure 5-4: Concept map showing the relationship between menstruation and fears of pregnancy.
The perception of menstruation as a welcome sign of non-pregnancy cannot be generalized to all women. However, this does indicate that when answering questions about sexual health, female college students may not consider normal menstruation as anything unusual or worth writing about in a survey. It is also worth noting that the sexual health course had completed several sessions on female sexual health, including one session focuses specifically on menstruation called, “Lifting ‘The Curse’: Menstrual Health.” For that reason, the female students were more informed about menstruation than the general population. However, this perception of menstruation as a normal function and sign of non-pregnancy must go beyond the students in the course because the female students were describing both their own feelings and the feelings of their peers.

**Gay men cross gender lines.** Contrary to expectations for the quantitative analysis of the relationship between sexual orientation and topic discussed, non-heterosexual students did not discuss Pregnancy/Pregnancy-Prevention less than heterosexual students. Non-heterosexual students were expected to discuss pregnancy and pregnancy-prevention less than heterosexual students because same sex intercourse cannot lead to pregnancy.

The qualitative induction process led to insights that may explain why non-heterosexual students would discuss pregnancy and pregnancy-prevention. The survey didn’t ask students to report about the gender of the peers with whom they were having sexual health discussions. However, during the qualitative induction process I was able to identify gay male to female discussions based on the pronouns used in students’ responses to open-ended questions. Gay male students described multiple discussions
with both male and female peers. In particular, one of the gay male students, Kevin (White, male, 20, Gay) seemed to have a circle of friends that was predominantly female. Kevin specifically described discussions with female friends about pregnancy and female anatomy, admitting that he didn’t have experience with the latter topic. He also provided support for a female friend whose boyfriend had a higher sex drive than she did. He and his female friends compared their experiences having sex with men. In short, it seems likely that Kevin and his female friends were able to confide in and support each other because they have a shared interest in men, but different perspectives on relationships and dating. A confidante relationship between gay men and women is supported by a recent study (Russell et al, 2013). In this study, straight women were presented with a scenario where they were going to a party with a gay man, straight man, or straight woman, then asked to rate how much they trusted “mating advice” from their companion. The straight women who were paired with a gay man reported having much more trust in the mating advice from their companion than women who were paired with a straight woman or straight man. This study also presented gay men with the same scenario. Gay men were paired with a straight woman, lesbian, or gay man. Gay men who were paired with a straight woman reported trusting their companion’s mating advice much more than gay men who were paired with other gay men or lesbians. Russell and his colleagues concluded that this finding is due to perceptions that gay men and straight women are able to give each other reliable, but unbiased relationship advice because of the lack of sexual pressure and competition between these groups. It also helps that gay men and straight women are interested in male mates, but not interested in each other and unlikely to be competing for the same men. This proposed confidante relationship between
women and gay men would explain why non-heterosexual students were found to discuss pregnancy and pregnancy-prevention at rates that were not significantly different from heterosexual students. A research study could be designed to determine whether gay men’s peer sexual health communication resembles the communication patterns of women, moderated by their number of female friends.

**RQ6. Do college students have more frequent discussions of sexual health as they progress through a course on human sexuality?**

Contrary to expectations, the longitudinal analysis of the survey data showed that students reported having significantly \( p < .001 \) less frequent discussions with their peers as the semester progressed. One possible explanation for the decreasing frequency is that the sexual health course began to as the designated time and place for peer sexual health discussions because of its discussion-heavy design. If students had questions or insights about sexual health, they may have satisfied their need to discuss their ideas with their classmates in a safe space during their weekly small group discussion sessions. Questions such as the efficacy of condoms would not need to be debated with peers because the course provided definitive answers based on research.

Another explanation is that early in the semester, students may have shared information they were learning in the sexual health course with their peers because students found this information to be novel and sometimes shocking. As students adjusted to discussing sexual health on a regular basis, the novelty of what they were learning may have worn off, thereby decreasing their motivation to share that information with peers. The qualitative induction analysis provides some evidence for this. In the first survey, Danielle (White, female, 22) said that one of her reasons for talking to her peers
about sexual health that week was to become more comfortable talking about safer sex. In the second survey, Dustin (White, male, 21) talked to his peers about negative sexual experiences and preventing STIs. When explaining the purpose of this discussion, Dustin wrote, “We talked about them to tackle tough issues and feel more comfortable about taboo issues.” In these cases, both Danielle and Dustin appear to be having intentional discussions to get past their ingrained reluctance to discuss sexual health. Throughout the rest of the semester, Danielle reported three more discussions with peers about safer sex. Dustin reported talking to his peers about safer sex two additional times. Danielle and Dustin did not describe any of these later discussions as being uncomfortable or taboo.

A third explanation for why students reported having less frequent discussions about sexual health with their peers is that students underreported these discussions. During the qualitative induction process, I found 15 cases where students indicated that they did not have sexual health discussions with their peers, but then proceeded to describe a sexual health discussion (see 3.7.4 Peer Communication Norms: Underreporting in Chapter 3). This could mean that as the course progressed, sexual health information became a more integrated part of their personal knowledge and therefore less remarkable when it came up in conversations. An alternative explanation for underreporting peer sexual health communication is that some students had a more limited definition of what qualifies as a sexual health topic. For example, Lauren (Asian, female, 21) and Matthew (White, male, 20) talked to their peers about circumcision, but may have not considered circumcision to be a sexual health topic because circumcision is not directly related to STIs or pregnancy. If that is the case, then this group of students
may have only reported having discussions with their peers about sexual health when they discussed specific topics that were covered early in the semester.

**RQ7. To what extent are the topics of college students’ discussions of sexual health influenced by the sequence of topics in a course on human sexuality?**

I was expecting to find that students discussed a sexual health topic from the course more with their peers shortly after that topic was covered in the course. The longitudinal analysis of the discussion of the four course topics targeted in the survey showed that there was a statistically significant decrease in the discussion of Safer Sex/Condoms/Contraception, Pregnancy/Pregnancy-Prevention, and Negative Sexual Experience over the course of the semester. The analysis of the discussion of STIs/HIV showed no statistically significant result. A shorter-term analysis of weekly changes in the data showed that there was a statistically significant ($p < .01$) increase of the discussion of STIs/HIV when comparing survey weeks five and seven, which are the weeks prior to and after this topic was discussed in detail in the sexual health course. Likewise, there was a statistically significant ($p < .05$) increase in the discussion of Pregnancy/Pregnancy-Prevention between weeks three and five, which are the weeks before and after methods of pregnancy prevention were discussed in detail. The short-term *increase* in discussions of Pregnancy/Pregnancy-Prevention was interesting considering a semester-long *decrease* in the discussion of this topic. The sexual health course did not appear to create a permanent increase in the discussion of sexual health topics between students and their peers. However, it appears that there was a short-term effect where a specific sexual health topic may be discussed more with peers shortly after it is covered in the course. The short-term increase in the discussion of STIs/HIV appears
to last longer than Pregnancy/Pregnancy-Prevention. This may be due to the novelty of STIs/HIV or the additional class time devoted specifically to this topic.

**RQ8. Does the tone of college students’ discussions of sexual health become more positive as they progress through a course on human sexuality?**

Peer discussions were expected to have a more positive tone as the semester progressed due to an overall increase in knowledge and comfort with sexual health topics. In addition, if a negative life event happened later in the semester, students could be better prepared to deal with that event, which could lead to a less negative tone. Over the entire semester, there were no statistically different changes in the tone of peer sexual health communication. In the last few weeks of the semester, there was an increase in the positive tone discussions and a decrease in neutral tone discussions. Based on the findings from the qualitative induction process, the tone of peer sexual health discussions appears to depend on the context of those discussions. As previously noted, most students who reported having “very negative” discussions with their peers that dealt with knowing someone who either had a regretted sexual experience or was coping with a negative consequence of unprotected sex. In these cases, a negative life event of someone close to the student appeared to determine the tone of the discussion. In the open-ended responses where students indicated a “very positive” tone, students told humorous stories, provided support and advice to friends, reinforced the importance of safer sex behaviors, and discussed the healthful habits of others. For example, Kimberly (White, female, 20) reported a very positive discussion about one of her roommates who was having sex and came out of the room to get a condom, “my other roommates and I discussed how it was impressive that she was getting a condom because she was highly intoxicated.” Kimberly
and her roommates seemed to be impressed largely because of the tendency for college students to be careless about safer sex while intoxicated. In that sense, this very positive discussion about a safer sex practice while intoxicated is the opposite of very negative discussions about regretted sexual experiences. If Kimberly’s roommate had not practiced safer sex and, consequently, had to deal with an unexpected pregnancy, Kimberly may have reported a very negative tone of a discussion with her roommate. In short, the positive or negative tone of peer sexual health communication is more strongly tied to life events and consequences than it is tied to knowledge and skills gained from a sexual health course.

General Discussion

The answers to each of the research questions have begun to illuminate peer sexual health communication and the impact of the sexual health course. Due to the importance of sexual health to young adults, their families, their communities, and the nation we must also understand how this new knowledge should impact teaching practice and what additional research is needed. For this reason, the following section includes a summary of the findings from the perspective of the three primary research themes of this dissertation: the characteristics of students who are more likely to share sexual health information with their peers (super-peers), the nature of peer sexual health communication, and the effects of the sexual health course on peer sexual health communication over time. In addition to a summary of findings, each research area includes implications for teaching sexual health courses and areas for future research.
Characteristics of Super-Peers

Summary of findings. An overarching goal of this research was to understand the characteristics of students who are more likely to share sexual health information by examining the relationship between students’ demographic characteristics (age, gender, race/ethnicity, and sexual orientation) and descriptors of their peer sexual health discussions (frequency, topic, mode, and tone). The qualitative induction process also informed these analyses, by helping to identify relationships and enabling richer interpretations of the quantitative analyses. Together, these methods provide a more complete picture as to who is talking and why.

Personal relevance seems to explain much of why the college students in this study were having discussions of sexual health with their peers. In this study, female students talked to their peers about sexual health more than male students. A likely explanation is that more of the topics in a sexual health course are relevant to women. This is especially true for topics such as menstruation, pregnancy, and contraceptive choices. Men only experience menstruation and pregnancy indirectly, through the experiences of women close to them. For single men, there is little need to discuss the merits of different contraceptive options. Condoms are the only contraceptive option for single men because it is the only one they can control. Men did discuss topics such as menstruation and contraceptive options when they became personally relevant. In all three cases where male students reported talking to their peers about menstruation, the topic was related to men having sex with women during menstruation. When men talked about making choices between contraceptive options, those discussions were either to their girlfriend or a friend in a relationship because those are the cases where
contraceptive options aside from condoms are relevant. Overall, gender-based differences in the perceived relevance of various sexual health topics may explain why women discuss sexual health more frequently with their peers than men.

Non-heterosexual students were expected to discuss pregnancy less than heterosexuals because pregnancy is not a consequence of same-sex interaction. This was not found to be true. A reasonable explanation, backed by student reports in the open-ended question, is that women and gay men can form a confidante relationship and share advice on relationships and sex. This bond seems to enable a frank and open communication about otherwise sensitive topics due to a shared, but non-competitive interest in male partners (Russell et al, 2013). It also makes topics such as pregnancy more relevant to gay men because pregnancy is important to their closest friends who come to them for support and advice about sex and relationships.

Although no statistically significant relationships were found between demographic characteristics and sexual health topics discussed, there was near significance ($p = .053$) indicating that non-heterosexual students may be more likely to discuss safer sex, condoms, and contraception more than heterosexual students. Again, this can be explained by personal relevance. Gay men have been the target audience of many safer sex programs with the goal of preventing the spread of HIV through the use of condoms.

No statistically significant relationships between demographic characteristics and the positive or negative tone of peer sexual health communication were found. Based on the qualitative induction process, positive or negative tone seemed to be more a function of the context of the discussion. Students who had very negative discussions talked to
their peers about regretted sex or the unwanted consequences of sex. On the other hand, very positive discussions were about positive experiences, providing support and advice, and making safer sex decisions.

There were no statistically significant relationships between demographic characteristics and the mode of communication used. Most students preferred face-to-face communication. When students used multiple modes of communication, it was usually tied to helping someone in crisis. In these cases, students appeared to use communication technology such as phone calls, texting, and e-mail to provide immediate and continuing support during the crisis period.

In addition to these findings, it was worth noting that there were some students who, in their open-ended responses, said that they liked sharing course information with their peers. They expressed interest in sexual health as a topic and a desire to help others. One female student was actively involved as a peer sex educator and ran events on campus during the semester. These students may have unique personal histories to drive their interest in sexual health or they may find helping others to be intrinsically rewarding.

In summary, based on these findings, demographic characteristics do not appear to directly affect peer sexual health communication. Instead, a more likely explanation is that peer sexual health communication is heavily context-driven. Women seem to talk to their peers more than men about sexual health not simply because they are women, but because the sexual health experience of women is more complicated than it is for men and therefore they have more to discuss. Super-peers are students who are more likely to spread sexual health information throughout their peer network.
a super-peer can be any age, gender/ethnicity, race, or sexual orientation. In most cases, the key to differences in frequency, tone, mode, and topic appears to be personal relevance. If there are individual differences that determine the likelihood of a student becoming a super-peer, those differences may be personality characteristics instead of demographic characteristics.

**Implications for teaching practice.** There are two principal findings from this research focus that have implications for teaching practice: differences in meaning and relevance. Educators must remember that what they are saying and what students are hearing may be very different based upon both the educators’ and the students’ personal histories, which are likely very diverse. When educators talk about sexual health, they may mean the full range of sexual expression as it relates to living a satisfying and healthy life. That will include essential behaviors that prevent negative consequences such as unplanned pregnancy and the contraction or spread of STIs. In addition to these topics, sexual health educators may also consider wide range of additional sexual health concepts that affect how we live as sexual beings: anatomy, development, gender expression, sexual orientation, communication, cultural definitions of masculinity and femininity, planned pregnancy, fetal development, birthing options, education, and public policy to name a few.

In contrast to this wide range of topics that are likely considered to be important aspects of sexual health by a sexual health educator, students in this study primarily focused on behaviors that prevent negative outcomes. For example, approximately 30% of the open-ended responses from all students mentioned using condoms. The sexual health course that ran concurrent to this study included a wide range of sexual health
topics, but had an emphasis on preventing negative outcomes, so students’ focus on these negative topics is understandable. Topics that were not directly related to the negative consequences of sex, such as different positions, anal sex, oral sex, and masturbation only represented a combined total of 11 submissions. These 11 submissions came from four heterosexual female students, one gay male student, and one straight male student. Based on these findings, it seems likely that the students underreported their peer sexual health discussions because they had a limited definition of sexual health.

I recommend that faculty teaching sexual health courses spend time at the beginning of the semester to set the stage for a broader discussion about sexual health. This could be done through a tool such as a concept map that shows sexual health topics and their relationships. Throughout the semester, this concept map could be used to remind students about the big picture and illustrate how a new course topic is related to what they have just learned. This would also ensure that students have common definitions of major course topics. For example, if a faculty member is talking about contraception, the male students in the course may be focused on condoms while the female students would be considering condoms along with several other methods of preventing pregnancy.

Another way to highlight differences in definitions among a class would be to anonymously poll students in the class with a question such as “When I say ‘contraception,’ what comes to mind?” and then showing the male versus female responses and highlighting the differences. This could lead to a discussion and the development of a common definition created by the students in the course.
I believe that course topics can become more relevant to students through the use of empathy-focused activities. In these activities, students would have to imagine themselves in the place of someone who is affected by a course topic, either directly or through a relationship with a friend or relative. Actual examples from this study could provide the basis for realistic scenarios. For example, a student could be asked what they would do if their younger sister, who is still in high school, asked them for advice about a boyfriend who wanted to stop using condoms. Such a scenario could lead to a healthy debate about their sister’s maturity, the legal age of consent, possible pregnancy, STIs, hormonal birth control options, commitment, negotiation with a partner, seeing a doctor, and what the sister would do if she became pregnant. The little sister scenario could be presented as a semester-long storyline that would develop over time to include a broader range of sexual health topics.

**Areas for further research.** The quantitative analysis that I performed to identify the characteristics of super-peers was based on a snapshot of student responses toward the beginning of the semester. The first survey happened a few weeks into the semester, when students may have already started to change their communication patterns based on the course. If this study were repeated, a survey of peer sexual health communication on the first day of the course would provide better baseline data. However, as noted above, students may have a narrow understanding of what sexual health means. Therefore, questions used in future research should be very specific to the range of topics considered to be part of sexual health.

In addition, students who take a course on sexual health may be more inclined to discuss this topic than the general student population. If this is true, it is likely related to
feelings of discomfort or anxiety associated with discussing sexual health. A study examining the attitudes of students enrolled in a sexual health course compared to a random sample of students who are not enrolled in the course would provide insights into the bias introduced by students self-selecting into the course.

The question about the topics that students discussed with their peers should be revised based on the results of this study. For example, one topic was “Pregnancy/Pregnancy-Prevention,” which is too broad and overlaps with the topic “Safer Sex/Condoms/Contraception.” Based on the findings of this study, a better question would ask whether students discussed any contraceptive options and ask them to select from a list such as:

- Condoms (including male or female condoms)
- Hormonal birth control (pills, rings, patches, injections)
- Surgical methods of birth control (vasectomy, tubal ligation)
- Using multiple contraceptive methods together
- Other forms of contraception (please specify)

It is likely that a question framed this way would show demographic differences. With the topics split in this manner, I would expect men and women to discuss condoms at a similar rate. I would also expect to find a gender-based difference where women would discuss hormonal birth control, surgical methods, and using multiple methods more than men.

Further study of the peer sexual health communication patterns of non-heterosexual students is warranted. Despite the small number of non-heterosexual students in the study, there was a near statistically significant finding ($p = .053$) that
indicates that non-heterosexual students may discuss STIs/HIV more than heterosexual students. A larger sample including more non-heterosexual students is necessary to determine whether this is a reliable finding.

The characteristics of super-peers may have more to do with personality characteristics than demographics. For this reason, I propose further research into the connection between peer sexual health communication and personality characteristics such as conscientiousness, agreeableness, neuroticism, openness, extraversion/introversion, and sensation seeking. For example, students with higher conscientiousness and extroversion scores may be more likely to encourage their peers to practice safer sex due to a concern for their well-being.

The Nature of Peer Sexual Health Communication

Summary of findings. Through the qualitative induction process, I found insights into the context of peer sexual health communication. Life events, such as a recent sexual encounter, preparations for a spring break trip, and an upcoming visit to a gynecologist, create opportunities for peers to discuss sexual health with each other. Women may discuss sexual health with their peers more frequently because they have more life events related to sexual health and more choices about contraception. Whether these life events are perceived as positive or negative, students and their peers express willingness to provide advice and support to each other. Students drew upon course materials such as information about proper condom use, statistics, STI symptoms, and images from the textbook. In some cases, this support includes action such as taking a friend to a location where they can get tested or receive medical treatment. Talking to peers about life events also creates social bonds between peers and is seen as a way to get to know each other.
I did not find a strong connection between media events and peer sexual health discussions. There were a couple of cases where a news story or television program triggered a discussion, but these were uncommon. I believe this is due to the media events being less personally relevant to students than life events within their peer network.

An unexpected finding was the differences in the meaning of contraception between the male and female students. Both male and female students discussed condoms with their peers. However, for most male students, condoms are the only reliable safer sex option because it’s the only one they can control. Female students discussed a variety of contraceptive options in addition to condoms such as birth control pills, hormonal injections, and patches. In addition to preventing pregnancy, these options had to be weighed according to other factors such as their costs, requirements of proper use, possible side effects, and ability to regulate periods. For women, contraception is a much more complex topic than it is for men. The exceptions where men discussed multiple contraception options were connected to discussions of contraceptive methods within an established relationship.

Another unexpected finding was the perception of menstruation reported by the students. When female students talked about menstruation, it was usually in terms of pregnancy. Menstruation was a symbol of not being pregnant, whereas a late period could be a cause of a pregnancy scare.

I was expecting to find that non-heterosexual students discussed pregnancy and preventing pregnancy less than heterosexual students. This was not the case. When I examined the open-ended questions, the gay male students in the class reported having
many discussions with female peers about sex and relationships. This bond between gay men and straight women has been the subject of recent research (Russell et al, 2013). This trusted relationship between gay men and women may also mean that gay men are able to provide support to both male and female peers due to shared biology with the former and shared attraction with the latter. The same may also be true for bisexual men and women and lesbians, but there were no substantial open-ended responses from students who indicated those orientations.

**Implications for teaching practice.** The connection between life events and peer sexual health communication has implications for teaching practice. Sexual histories are considered a sensitive and personal topic, so it wouldn’t be possible to require students to recount their sexual experiences through a writing assignment or presentation. However, students could be presented with hypothetical situations where a friend is seeking advice about a sexual health decision or experiencing a crisis. Students could discuss how they would respond to those situations. For example, a student may be approached by a peer who said that they recently started dating someone and were thinking about switching from condoms to relying on hormonal birth control. A well-informed student should respond by asking them whether they or their partner had an STI and how to get tested, whether the couple was monogamous, discuss the need to use the hormonal birth control consistently, the possible failure of hormonal birth control if used with antibiotics, and risks introduced if either of the partners cheats with someone outside the relationship. This scenario is based on several accounts from both male and female students, so it should be both realistic and relevant.
Another educational activity could have students identify resources that can provide support and treatment for peers in crisis. In survey submissions, students talked about peers in their current location, such as classmates and roommates, as well as peers from their hometowns, such as siblings and high school classmates. Therefore, the assignment should ask students to identify local resources and resources in their hometowns. This should help to prepare students to have sexual health discussions with their peers if a similar situation arises.

When providing advice and support to their peers, some students drew upon course content and repeated course activities with their friends. Based on this finding, course content and activities should be designed to be portable and encourage peer interaction. This could be especially beneficial in cases where a course topic isn’t a typical issue of discussion within a demographic segment. For example, female students mentioned pregnancy scares more often than male students. A sexual health course could have an activity where students are presented with a pregnancy scare scenario and asked how they would advise a friend in that situation. Then the student should ask a male and a female friend how they would respond. This type of activity may make male students and their male peers more sensitive to the pregnancy concerns faced by their female classmates.

Even though news stories, television programs, and other forms of media were not common trigger on their own in the present research, I would recommend that educators take advantage of current news stories to focus students’ attention on some aspect of sexual health. Educators can also use documentaries, movies, television shows, and social media videos to illustrate the complex social, political, and economic issues outside
typical student experience such as the experience of single mothers, transgender people, and people living with HIV. Where possible, these media elements should be made available to those outside the class so students have an opportunity to discuss the issues with their peers.

I found that the qualitative induction process was beneficial for expanding my understanding of sexual health communication in college students. Reading and re-reading students descriptions of their sexual health discussions, I began to understand the issues they face and how they dealt with them. A compilation of stories drawn from real student experiences would be very helpful as a resource for people who are training to become sexual health educators.

**Areas for further research.** While qualitative research provides rich descriptions of the possible range of human behavior, it does not provide statistically significant answers. For example, I have noted that no female students discussed menstruation as being negative. This finding is based only on what I found in the sample and does not indicate that all women feel this way or that there is an overall positive attitude toward menstruation. However, I now know that some women see menstruation as a welcome sign that they are not pregnant. This leads to a menstruation-attitude hypothesis that can be tested with quantitative methods.

Some of the gay men in this study were having sexual health discussions with a group of peers that was mostly female. This raises questions about the role of non-heterosexual students in peer sexual health communication and sexual health education. This study did not have sufficient numbers of non-heterosexual students to form
conclusions that can be generalized, but further research into the peer sexual health communication patterns of non-heterosexual young adults is warranted.

Finally, several of the recommendations for changing teaching practice involve the use of scenarios. If a scenario-based course design is implemented, it should be studied to determine what effects it has in closing differences in meaning and perceptions of relevance. For example, I expect that male students would have a more complete understanding of contraceptive options after completing an assignment where they help a friend make appropriate safer sex choices. This hypothesis would need to be tested.

**Course Effects on Peer Sexual Health Communication**

**Summary of findings.** I had expected students to have more frequent sexual health discussions with their peers as the semester progressed. I expected this result for two reasons. First, students would have increased knowledge of sexual health based on course lectures, discussions, and content. Second, students would have increased comfort in discussing sexual health with their peers due to the discussion-based small group sessions that took place every week. However, the longitudinal analysis of the frequency of peer sexual health discussions showed a significant \( p < .001 \) overall decrease in the frequency of peer sexual health discussions over the course of the semester. The decreasing frequency of peer sexual health communication is surprising and worth further study.

I have a few possible explanations for why peer sexual health discussions were found to decrease overall throughout the semester. Students may have seen the sexual health course as the time and place for asking questions and expressing their ideas about sexual health and may therefore have felt less need to discuss sexual health with their
peers. Another explanation is that students may have had discussions about the sexual health information they were learning from the course early in the semester, but stopped sharing it as frequently after the novelty wore off. A third possibility is that the frequency of peer sexual health discussions stayed even or actually increased throughout a semester, but it was reported to have decreased. This explanation is based on evidence from the qualitative induction process where I found cases of students describing sexual health discussions even though these students had indicated that they did not discuss sexual health with their peers that week.

The sexual health course was expected to have an impact on the topics discussed by students and their peers. Four series of binary longitudinal regressions with repeated measures showed that there were statistically significant decreases in discussions of pregnancy, safer sex, and negative sexual experiences during the semester when this study ran. However, there were short-term increases in the proportion of students discussing STIs/HIV and Pregnancy/Pregnancy-Prevention when I compared the week before those topics were introduced to the week after those topics were introduced. These short-term increases were found after two course topics were discussed. The first was pregnancy-prevention through various forms of birth control. This may have caused an increase in peer discussions because the course informed students about new forms of hormonal birth control that they have not previously experienced such as injections, patches, and insertable rings. The other short-term increase was found after STIs were covered in detail. The increase in the discussion of STIs/HIV appears to have remained at a higher level after the topic was introduced, but based on these data, it is not possible to determine whether this increase would be sustained weeks after STIs/HIV were discussed.
in course. One reason for a possible sustained increase in the discussion of STIs/HIV is novelty. In the open-ended submissions, some students remarked that this was new information, which they wanted to share with their peers.

I expected the tone of peer sexual health discussions to become more positive as the semester progressed due to students becoming more comfortable discussing course topics and more prepared to handle adversity. The longitudinal analysis did not show a significant change in positive or negative tone over the course of the semester. Through the qualitative induction process, I found that tone was closely related to the life event triggers that lead to peer sexual health discussions. Very negative discussions were focused on regretted sexual experiences and the consequences of unsafe sex. Very positive discussions included topics such as humorous stories, stories of peers practicing safer sex, and providing advice and support to peers. In short, the tone of a discussion was reported as being more negative if a life event was physically or emotionally harmful and more positive if the discussion was supportive, funny, or healthful.

**Implications for teaching practice.** Further research is needed to determine whether the frequency of peer sexual health communication actually decreased due to students taking a sexual health course. If this result is confirmed, sexual health courses can be designed to promote peer interactions. In the open-ended questions, some students reported that they had discussions with their peers that were triggered by certain course materials. Specifically, these were course materials that were novel or surprising, made them reflect on their own choices, or made them feel curious about their opinions of their peers. This link between novel course information and discussing that information with peers is supported by the short-term increase in peer discussions related to new
information on STIs and pregnancy-prevention methods. Students described sharing novel course information and activities with peers such as information about STI rates, proper condom use, writing a letter to their parents about being HIV-positive, watching a video about circumcision, and completing a survey about regretted sex. Sexual health courses can be designed to have mini-assignments where students survey their peers every two weeks and then discuss those findings in their small group discussion sessions. This would create a structure for peer sexual health discussions at a regular interval.

Because the positive or negative tone is dependent on the situations that trigger peer sexual health discussions, it seems unlikely that a sexual health course can change the overall positivity or negativity in tone of a given student. Instead, sexual health courses should be designed to prepare students to handle a variety of positive and negative situations. For example, one activity could have students respond to a very positive situation where an older cousin is pregnant and asking for advice about birthing options. Another activity could have students respond to a friend in crisis who blacked out at a party and is dealing with emotional issues in addition to concerns over pregnancy and STIs. By preparing students for a variety of situations with positive and negative tones, the sexual health course will prepare students for a wider range of situations that they may actually encounter.

**Areas for further research.** The decrease in the frequency of peer sexual health communication over time needs to be study before it can be fully understood. It would be interesting to see if this result is also true for other sexual health courses and whether it depends on how much the course incorporates discussion-based activities. If this result is replicated in other courses, it seems important to examine whether activities designed to
have students survey their peers on a regular basis can maintain or increase the frequency of peer sexual health discussions throughout the course of a semester. Further research is also necessary to understand why students would underreport the number of peer sexual health discussions they are having with their peers. This may lead to further insights into differences in perceptions of what sexual health means.

There is evidence that certain novel course topics such as STI information and alternative forms of hormonal birth control can have a short-term increase on peer discussions of those topics. Further research is needed to determine whether this short-term effect is true for other topics in a sexual health course. In addition, continuous research is needed to determine what kinds of course materials will be considered novel and interesting by adolescents and young adults as culture and values change over time.

The positive or negative tone of a peer sexual health discussion is related to the life event that triggers the discussion. While we can’t control life events and thereby tone, we can design sexual health courses to make students better prepared for a wide range of sexual health discussions. For that reason, future research into peer sexual health communication should include a question related to how comfortable students felt having that discussion. This would show whether a sexual health course could make students feel more comfortable, even when the tone of a discussion is negative.

**Limitations of This Study**

The survey data used for this study were collected to improve a sexual health course in 2009. Although the survey was not originally intended to be used for research purposes, it provided an opportunity to explore a research area that is not well
understood. While it provides new insights, these results should be understood within the following limitations.

**No Control Group**

This study did not have an experimental design. Ideally, the students in the sexual health course would have been compared to another group of students with a similar background who were not in such a course. Such comparisons would reveal whether students who register for a sexual health course have different peer sexual health communication patterns than other students at the same university. Furthermore, a comparison group would have helped to determine how the course is affecting peer sexual health communication. For example, if a decrease in the frequency of peer sexual health communication over the course of the semester is due to aspects of the sexual health course, I would expect to find that decrease among only individuals in the sexual health course and not among their peers.

**Limited Diversity**

The students in this study did not include large numbers of non-heterosexual and non-White students. This made it difficult to determine whether there were significant differences based on demographic characteristics such as sexual orientation and race/ethnicity. A larger sample from the same university or a sample from a university with a more diverse student body would be more likely to show whether there are demographic differences in peer sexual health communication.

**Timing of First Survey**

The first of the weekly surveys was administered to students after they had been in the sexual health course for one month. Due to this, any changes in peer sexual health
communication due to course effects may have happened before the first survey. A survey of student sexual health communication behavior conducted before the first day of the course would help to determine course effects from the beginning. However, there would be one problem with this approach. If students have different perceptions of what sexual health means, before starting a sexual health course and having concepts defined by faculty, students may underreport their sexual health discussions. For that reason, survey questions would need to be carefully worded to make it clear that sexual health includes a wide range of topics.

**Question on Sexual Health Topics**

The question asking students to indicate whether they discussed any of four sexual health topics with their peers was problematic for two reasons. First, the four categories may have caused students to think of sexual health discussions as only those related to contraception, STIs, pregnancy, and negative sexual experiences. This may partially explain why some students did not indicate that they discussed sexual health with their peers when they talked to their peers about issues such as circumcision. Second, through the qualitative induction process I found that these topic categories represent a wide range of possible sub-topics and the terms mean different things to different groups of students. This may be the reason that I did not find significant differences in topics discussed based on demographic characteristics. For example, one of the topic choices was “Safer Sex/Condoms/Contraception.” If I had separated this one choice into “Safer Sex,” “Condoms,” and “Hormonal Birth Control,” I may have found that men and women discuss safer sex and condoms at similar rates, but women discuss hormonal birth control more than men.
Qualitative Follow-Up

In an ideal qualitative study, a researcher would know the identity of all participants. This gives the researcher the option to contact a participant and ask them additional questions to clarify their statements or to more deeply explore an interesting finding. This also helps to prevent a researcher’s bias from affecting his or her interpretation of the data. Since this survey was anonymous and the data were collected in 2009, I am not able to identify subjects or contact them to ask follow-up questions.

Conclusion

Despite the importance of sexual health to the lives of adolescents and adults, few studies have examined peer sexual health communication. This research focus is important because adolescents report that they use their peers as their primary source of sexual health information. Furthermore, it may be possible for sexual health educators to extend their reach through super-peers, who are students who learn about sexual health and share that knowledge throughout their peer network.

The purpose of this study was to illuminate peer sexual health communication by examining the characteristics of super-peers, exploring the nature of peer sexual health communication, and looking at the effects of a sexual health course on peer sexual health communication. The data for this study came from a series of 11 anonymous surveys that were administered on a weekly basis to students in a sexual health course in 2009. This survey asked students to describe the frequency, positive or negative tone, mode of communication, and topics of any peer sexual health discussions they had in the past week. Data from the first survey was used to determine whether there was an association between demographic characteristics and frequency, positive or negative tone, mode, and
topics discussed. Data from all of the open-ended questions was used as the basis for a qualitative induction process that described the nature of peer sexual health communication. Data from the first 10 surveys was used to conduct a longitudinal analysis of the effects of the course on peer sexual health communication.

The demographic analysis found that women discuss sexual health more frequently than men, which was a finding of previous studies. There was also a near statistically significant finding ($p = .053$) indicating that non-heterosexual students may discuss STIs/HIV more than heterosexual students. I believe that these findings are based on personal relevance and life events. Sexual health is more complex for women because they have more life events associated with sexual health, are diagnosed with STIs at a higher rate, are expected to visit a gynecologist, and have more contraceptive options. This leads to more opportunities for discussions with their peers.

The qualitative induction process lead to a series of insights into peer sexual health communication. Life events were often cited as triggers for sexual health discussions with peers. The positive or negative tone of peer sexual health discussions was often tied to the way that the life event affected the people having the discussion. In some cases, a negative life event such as a pregnancy scare lead to advice, support, and action in the form of taking a friend to get a pregnancy test. As expected, course content and activities were used to support some peer sexual health discussions. I also found that the male and female students had different meanings for sexual health topics like menstruation and contraception.

I was expecting to see changes in sexual health communication over time due to the effects of the course. The most noticeable difference was that the students in the
course showed a significant ($p < .001$) overall decrease in the frequency of sexual health discussions over time. This finding may be due to the sexual health course defining a time and place for their need to ask questions or share information about sexual health. The decrease over time may also be due to a need to discuss new sexual health at the beginning of the course, a need which decreased as the novelty of the information decreased. Finally, I found evidence that students were underreporting their sexual health discussions in some cases, possibly due to a limited definition of what qualifies as sexual health.

These findings have implications for teaching and future research. Sexual health educators should become more familiar with peer sexual health communication so they understand how relevance and differences in meaning affect safer sex decision-making. Sexual health courses should be designed to incorporate examples and scenarios so students perceive a wider range of sexual health topics as relevant. Sexual health educators should prepare their students to have both positive and negative sexual health discussions with their peers.

Despite the limitations of this study, these findings are a first attempt to probe deeply into peer sexual health communication. Further research is needed before we can truly understand peer sexual health communication. The qualitative results, while interesting, are not generalizable without additional quantitative research to test new hypotheses. An experimental design with a control group and a more diverse student sample would provide additional potential to find demographic differences in peer sexual health communication. Another area for research is an examination of the relationship between personality characteristics such as conscientiousness, agreeableness,
neuroticism, openness, and extraversion/introversion and peer sexual health communication. The new teaching methods suggested by these findings should be designed, implemented, and evaluated to determine whether they have a positive impact on peer sexual health communication.
References


Hillier, L., & Harrison, L. (2007). Building realities less limited than their own: Young people practising same-sex attraction on the Internet. Sexualities, 10, 82-100.


## Appendix A

### Sexual Health Course Topics

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Introductions</td>
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<tr>
<td>Jan 14</td>
<td>What Is Sex Anyway?</td>
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<td>Jan 16</td>
<td>Diversity of Sexual Experiences: From A (Abstinence) to Z (Zen)</td>
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<tr>
<td>Jan 21</td>
<td>The Sexual Person I Am: Influence of Family &amp; Friends</td>
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<tr>
<td>Jan 23</td>
<td>The Sexual Person I Am: Influence of Society &amp; Media</td>
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<td>Jan 26</td>
<td>Sexual Messages in the Media</td>
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<td>Jan 28</td>
<td>What Makes Someone a Man? A Woman?: Contributors to Gender</td>
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<tr>
<td>Jan 30</td>
<td>“Studs”, “Slutes”, “Players,” &amp; “Good Girls”: The Impact of Gender Roles</td>
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<tr>
<td>Feb. 2</td>
<td>Understanding Females &amp; Males Better</td>
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<td>Feb 4</td>
<td>Who Am I Really?: Gender Identity and Diversity</td>
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<td>Feb 6</td>
<td>The Sexual Female Body: Unveiling the Mystery</td>
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<td>Feb 9</td>
<td>Enhancing Female Sexual Health &amp; Body Image</td>
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<td>Feb 11</td>
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<td>Feb 13</td>
<td>Lifting “The Curse”: Menstrual Health</td>
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<td>Enhancing Male Sexual Health &amp; Body Image</td>
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<td>Feb 27</td>
<td>The Sexual Male Body (con’t)</td>
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<td>Mar. 2</td>
<td>“Condomonium”</td>
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<td>Mar. 4</td>
<td>Preventing Pregnancy &amp; STIs: Barrier Contraceptive Methods</td>
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<td>Mar. 6</td>
<td>Sex Under the Influence</td>
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<td>Date</td>
<td>Topic</td>
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<tr>
<td>Mar. 18</td>
<td>Preventing Pregnancy: Hormonal Contraceptive Methods</td>
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<td>Mar 20</td>
<td>Emergency Contraception/Unintended Pregnancy/Abortion</td>
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<td>Mar. 23</td>
<td>“Who’s Responsible?”</td>
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<td>The Range of Sexual Orientations</td>
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<td>Mar 27</td>
<td>“Straight Talk”</td>
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<td>Mar 30</td>
<td>Straight Talk/LGBT Discussion</td>
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<td>Apr. 3</td>
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<td>Preventing Rape and Sexual Assault</td>
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<td>Apr 27</td>
<td>Love and Good-Byes</td>
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<td>Apr. 29</td>
<td>Sexual Relationships: From Casual to Committed</td>
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</table>
Appendix B

Weekly Course Survey

Students in the course were asked to complete a weekly survey through their course management system. The survey was composed of the following questions:

1. What is your current age?
2. What is your gender?
   a. Female
   b. Male
   c. Transgender
   d. Other
3. What is your racial/ethnic background? (Select one or more)
   a. White
   b. Black or African American
   c. Hispanic/Latino
   d. Asian
   e. American Indian or Alaska Native
   f. Native Hawaiian or Pacific Islander
4. What is your sexual orientation?
   a. Heterosexual
   b. Homosexual
   c. Bisexual
   d. Asexual
   e. Questioning
   f. Other
5. In the past week, did you talk with your peers about any of the following topics? (Check all that apply.)
   a. Safer Sex/Condoms/Contraception
   b. STIs/HIV
   c. Pregnancy/Pregnancy-Prevention
   d. Negative Sexual Experience (Regretted Sex/Alcohol and Sex/Unwanted Sex)
   e. I did not talk to my peers about any sexual health topics this week
6. Please describe the specific topics discussed:
7. How often did you talk to your peers about sexual health this week?
   a. More than once a day
   b. About once a day
   c. A few times this week
   d. About once this week
   e. I didn't talk to them about these sexual health topics this week
8. If you talked with your peers about sexual health this week, who generally initiated the conversation?
   a. I initiated the conversation.
   b. My peer(s) initiated the conversation.
   c. It was equally initiated by my peers and me
9. With how many peers did you talk about sexual information this week?
   a. 0 people - I did not discuss sexual information this week with my peers
   b. 1 person
   c. 2 - 3 people
   d. 4 - 5 people
   e. 6 - 10 people
   f. More than 10 people

10. When you talked to your peers about these sexual health topics this week, through what medium/technology did those conversations take place? (Check all that apply.)
   a. Face to Face Discussion
   b. Online – Blog
   c. Online - E-mail
   d. Online - Instant Messaging (AIM, Yahoo Messenger, MSN Messenger)
   e. Online - Social Network (Facebook, MySpace, etc...)
   f. Telephone - Phone Call
   g. Telephone - Text Messaging
   h. Other - Please describe in the following text box

11. If you talked with peers about these sexual health topics this week, what was the tone of the discussion?
   a. Very Positive
   b. Somewhat Positive
   c. Neither Negative nor Positive
   d. Somewhat Negative
   e. Very Negative
   f. I did not talk with them about these sexual health topics this week

12. If you talked to your peers about these sexual health topics this week, what was the discussion about? Check all that apply:
   a. Sharing information
   b. Sharing experiences
   c. Giving advice/support
   d. Receiving advice/support
   e. Sharing information/experiences from the SEXUAL HEALTH class
   f. Other - Please Describe in the following text box

13. Please briefly describe the purpose of your discussions with your peers about these sexual health topics:

14. Anything else?
Appendix C

Concept Map Centering on Peer Support that Illustrates the Relationship between Key Concepts in Peer Sexual Health Communication (Enlarged)
VITA

EDUCATION
2014 Ph.D. Candidate in Biobehavioral Health, The Pennsylvania State University, University Park, PA
2004 B.A. Philosophy, High Distinction, The Pennsylvania State University, University Park, PA

SELECTED PUBLICATIONS


FELLOWSHIPS AND AWARDS

2011-13 Schreyer Institute for Teaching Excellence
2009 Harold F. Martin Outstanding Graduate Teaching Award
2009 Biobehavioral Health Outstanding Graduate Teaching Award
2009 PLASE Grant from the Centers for Disease Control and the Pennsylvania Department of Education
2007 McWhirter-Mattison Best Graduate Paper Award from the Society for Scientific Study of Sexuality
2007 Emerging Professional Award from the Society for the Scientific Study of Sexuality
2006 Fund for Excellence in Graduate Recruitment from the Department of Biobehavioral Health