Understanding College Men's and Women's Perceptions of Sexual Behavior Responsibility Through the Lens of the Human Papillomavirus

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Understanding College Men's and Women's Perceptions of Sexual Behavior Responsibility Through the Lens of the Human Papillomavirus

Abstract
This dissertation is an examination of gender differences in sexual behavior responsibility and safe sex decision making, particularly among a college age population. In this study, I address one main research question: How do college-going men and women perceive their own and their partner’s responsibility for sexual behavior and sexual health? More specifically, I use the case of the Human Papillomavirus as a way to examine if there are gendered differences in the way college men and women think about their sexual behavior and sexual health and if these differences exist in the ways men and women act in certain sexual encounters. In order to address the main research question, I used two types of research methodology, both quantitative and qualitative. First, I conducted a quantitative survey to examine differences in college men's and women's awareness and knowledge of the Human Papillomavirus. I used qualitative in-depth interviews with 26 college students to assess which factors influence college men's and women's differences in the way they perceive sexual behavior responsibility and sexual health and how they behave in particular sexual encounters. Results of the quantitative survey suggest that college women have both a greater awareness of the Human Papillomavirus as well as more knowledge about the Human Papillomavirus compared to college men. Results also indicate that college women report being more likely to have received at least one dose of the Human Papillomavirus vaccine compared to their male counterparts. Findings from the qualitative interviews identified several factors associated with differences in how college men and women discuss their perceptions of their sexual behavior responsibility more broadly, as well as differences in their actions in particular sexual encounters. For example, these results suggest that college men and women in more committed relationships spend less time considering and practicing safe sex than those individuals participating in more casual sexual encounters. Additionally, preliminary findings suggest an influence of previous experiences of sexual trauma on participants’ current position toward sexual behavior responsibility with those reporting past trauma more likely to practice safe sex. The findings of the qualitative interviews also provide clear directions for future research.

Keywords
Sociology

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UNDERSTANDING COLLEGE MEN’S AND WOMEN’S PERCEPTIONS OF
SEXUAL BEHAVIOR RESPONSIBILITY THROUGH THE LENS OF
THE HUMAN PAPILLOMAVIRUS

BY

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DISSERTATION

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in Partial Fulfillment of
the Requirements for the Degree of

Doctor of Philosophy

in

Sociology

May, 2018
This dissertation has been examined and approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Sociology by:

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On April 4, 2018

Original approval signatures are on file with the University of New Hampshire Graduate School.
DEDICATION

This dissertation is dedicated to my sister, Katie.

My constant source of support for the last thirty years, this dissertation is as much her achievement as it is mine, for I never would have gotten here without her.
ACKNOWLEDGEMENTS

The journey through graduate school can often feel like an isolating experience, filled with lonely hours of studying and conducting research. If one is lucky enough though, we find ourselves with people to accompany us on this journey who can help make the experience fulfilling and worthwhile. I have been fortunate enough to have had many such people on my journey to this point.

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My sincerest thanks to you all for taking this journey with me.
# TABLE OF CONTENTS

DEDICATION .................................................................................................................. iv

ACKNOWLEDGEMENTS .................................................................................................. v

LIST OF TABLES ............................................................................................................ xi

ABSTRACT ..................................................................................................................... xii

INTRODUCTION ............................................................................................................. 1

Plan of the Dissertation ................................................................................................ 4

REVIEW OF THE LITERATURE ................................................................................... 7

Gendered Perceptions of Sexual Behavior Responsibility ........................................... 8

Men and contraceptive decision-making ................................................................. 9

Women and contraceptive decision-making ............................................................ 11

Couples and contraceptive decision-making ............................................................ 12

Limitations of the previous literature ........................................................................ 13

Sexual Culture of College Campuses ......................................................................... 14

College-going men and the hook-up culture ............................................................. 15

The role of masculinity ............................................................................................... 16

College-going women and the hook-up culture ......................................................... 17

Gender structure theory .............................................................................................. 18

Limitations of the previous literature ........................................................................ 21
Human Subjects Considerations ........................................... 47
Protection of human subjects ............................................. 48
Risks of the study .......................................................... 48
Benefits of the study ....................................................... 48

QUANTITATIVE RESULTS ............................................... 50
Participant Demographics ................................................ 51
Human Papillomavirus Knowledge ....................................... 54
Sources of Information ..................................................... 57
Perceptions of Responsibility ............................................ 58
Vaccination ................................................................. 59
Conclusion ................................................................. 61

QUALITATIVE RESULTS ................................................ 63
Qualitative Sample ........................................................ 65
Sources of Sexual Health Knowledge ................................. 68
Formal sexual education classes .................................... 68
Parents ................................................................. 70
Peers ................................................................. 72
The internet ............................................................. 73
Health services .......................................................... 75
Gender Differences in Sexual Behavior Responsibility .......... 76
Relationship Status ...................................................... 78
Personal Histories ....................................................... 83
The Human Papillomavirus ............................................. 84
LIST OF TABLES

Table 1. Descriptive statistics................................................................. 53
Table 2. Human Papillomavirus awareness.............................................. 55
Table 3. Human Papillomavirus knowledge: individual items.................. 56
Table 4. Human Papillomavirus knowledge: total score.......................... 57
Table 5. High school sexual education..................................................... 58
Table 6. Safe sex responsibility............................................................. 59
Table 7. Human Papillomavirus vaccine and gender............................... 60
Table 8. Human Papillomavirus vaccination.......................................... 60
Table 9. Human Papillomavirus vaccination dosage............................... 61
Table 10. Interviewee demographics..................................................... 66
ABSTRACT

UNDERSTANDING COLLEGE MEN’ S AND WOMEN’ S PERCEPTIONS OF SEXUAL BEHAVIOR RESPONSIBILITY THROUGH THE LENS OF THE HUMAN PAPILLOMAVIRUS

by

Angela M. Mitiguy

University of New Hampshire, May 2018

This dissertation is an examination of gender differences in sexual behavior responsibility and safe sex decision making, particularly among a college age population. In this study, I address one main research question: How do college-going men and women perceive their own and their partner’s responsibility for sexual behavior and sexual health? More specifically, I use the case of the Human Papillomavirus as a way to examine if there are gendered differences in the way college men and women think about their sexual behavior and sexual health and if these differences exist in the ways men and women act in certain sexual encounters. In order to address the main research question, I used two types of research methodology, both quantitative and qualitative. First, I conducted a quantitative survey to examine differences in college men’s and women’s awareness and knowledge of the Human Papillomavirus. I used qualitative in-depth interviews with 26 college students to assess which factors influence college men’s and
women’s differences in the way they perceive sexual behavior responsibility and sexual health and how they behave in particular sexual encounters. Results of the quantitative survey suggest that college women have both a greater awareness of the Human Papillomavirus as well as more knowledge about the Human Papillomavirus compared to college men. Results also indicate that college women report being more likely to have received at least one dose of the Human Papillomavirus vaccine compared to their male counterparts. Findings from the qualitative interviews identified several factors associated with differences in how college men and women discuss their perceptions of their sexual behavior responsibility more broadly, as well as differences in their actions in particular sexual encounters. For example, these results suggest that college men and women in more committed relationships spend less time considering and practicing safe sex than those individuals participating in more casual sexual encounters. Additionally, preliminary findings suggest an influence of previous experiences of sexual trauma on participants’ current position toward sexual behavior responsibility with those reporting past trauma more likely to practice safe sex. The findings of the qualitative interviews also provide clear directions for future research.
CHAPTER ONE

INTRODUCTION

Researchers have found significant differences in how men and women view their sexual health and perceive responsibility for their sexual behavior. In American culture, sexual health is generally perceived as a woman’s health issue, both in terms of preventing unwanted pregnancy as well as preventing the spread of sexually transmitted infections (Oudshoorn 2003). This perception can largely be attributed to the fact that women bear the majority of the consequences associated with most sexual health and sexual behavior issues, including both medical complications and societal stigma (Nack 2000). The introduction of a male Human Papillomavirus (HPV) vaccine (like the development of a male contraceptive pill in the 1970’s) challenges the sexual behavior paradigm that centers responsibility primarily on women and begins to include men in the discussion regarding sexual responsibility. This pending paradigm shift opens up a host of questions concerning the type of information that men and women receive about HPV and how they obtain their knowledge. It also encourages an investigation into what men and women do with this information and how active they are in maintaining their own sexual health and that of their partners.

Understanding college-going men and women’s decision-making regarding their sexual health has practical implications for the success of new treatments and could also inform the potential success of future prevention efforts, including an HIV vaccine. The Human Papillomavirus is a relevant and important case study for examining this shifting paradigm for
two main reasons. First, HPV has the highest prevalence rate among sexually transmitted infections in the United States, and young adults account for almost 75% of the new cases of genital HPV each year (Centers for Disease Control and Prevention 2013b). Second, like other sexually transmitted infections and unplanned pregnancies, HPV affects women and men disproportionately, with women experiencing more severe medical consequences (Centers for Disease Control and Prevention 2013b).

The Human Papillomavirus and the vaccine used to prevent certain strands of the virus have the potential to create a shift in the sexual behavior responsibility paradigm. HPV is the most common sexually transmitted infection in the United States, with the CDC reporting 79,100,000 cases in 2013. It is also the cause of several types of cancer, including cervical cancer, penile cancer, anal cancer, and oropharyngeal cancer (Centers for Disease Control and Prevention 2013b; Goldstein 2008). Two new vaccines, Gardasil and Cervarix, were approved by the Food and Drug Administration (FDA) in 2006 and 2009 respectively, to prevent the spread of certain types of the Human Papillomavirus in women (Centers for Disease Control and Prevention 2013a). In 2009, Gardasil gained an FDA approval and a Centers for Disease Control and Prevention (CDC) recommendation for use by men. While researchers have looked into the factors that influence women’s and parents’ decisions to vaccinate (e.g. Marlow et al. 2007; Brabin et al. 2006), with a few exceptions, researchers have not considered the factors that affect men’s uptake of an HPV vaccine (e.g. Jones and Cook 2008; Bohner et al. 2003). Because HPV is a sexually transmitted infection and the most effective prevention method for it is a vaccine, it is important to understand the factors that affect an individual male’s decision to vaccinate and how these might differ from the factors that affect a female’s decision. This is especially important in light of the other gender differences regarding responsibility for sexual health care.
Men and women who are currently enrolled in colleges and universities are an important group to examine in this changing paradigm. In particular, the Human Papillomavirus vaccine is relatively new and has experienced a slower uptake in the United States as compared to other developed countries.\textsuperscript{1} Approximately 60% of young women and 42% of young men have been vaccinated against HPV (Centers for Disease Control and Prevention 2015). A majority of the men and women currently enrolled in colleges have not been vaccinated against HPV, yet these college and university-going men and women are still a part of the targeted age group for vaccination (up until the age of 26 for women and gay men, and up until age 21 for straight men) as well as a high-risk group in terms of sexual health (Centers for Disease Control and Prevention 2013a).

My dissertation uses quantitative and qualitative methodologies to examine college-going men’s and women’s perceptions of their sexual behavior responsibility, their knowledge regarding HPV, where they obtain information about sexual health, and how they make decisions about their sexual behavior and sexual health. Findings from this research will make theoretical contributions to the sexual behavior literature and the different factors that influence sexual behavior responsibility decision making. Additionally, the findings from this study make contributions to the sociological gender literature by increasing our understanding of how college-going men and women feel about responsibility for their own sexual behavior and the process that unfolds when making decisions concerning sexual health.

Results of the study are practically useful for the promotion of the Human Papillomavirus vaccine and also inform future sexual health treatments and prevention programs.

\textsuperscript{1} Human Papillomavirus vaccine uptake is reported to be approximately 80\% for young women in the United Kingdom and Australia (World Health Organization, 2015).
for people belonging to the late-adolescent and college-going age populations. In a society striving for gender equality, it is important to bring men into the conversation about their own and their partners’ sexual health and make them active participants in their own sexual behavior responsibility. Findings from this study help to explain where men fit into the sexual behavior responsibility paradigm currently and offer suggestions to encourage further inclusion and equality between men and women.

Plan of the Dissertation

In this dissertation, I address one central research question: How do college-going men and women perceive their responsibility toward their sexual behavior and sexual health? More specifically, I examine the issue of the Human Papillomavirus and the HPV vaccine to update the experience of college students when preventing sexually transmitted infections and practicing safe sex. In order to address this question, I take a multi-method approach. First, I employ a quantitative survey methodology to gain an overview of the knowledge and perception of risk for the Human Papillomavirus within the college student population and to examine how the concerns and actions differ among college-going men and women. Additionally, I use this methodology to position the issue of the Human Papillomavirus within the college student population and to examine the level of knowledge, concern, and action that college-going men and women illustrate toward the virus. Second, I employ qualitative methods, one-on-one interviews in particular, to explore the relationships between gender and sexual behavior responsibility in greater depth. In addition, the qualitative interviews provide an in-depth understanding of the decision-making process which college-going men and women go through when making decisions before, during, and after their sexual encounters. Further, through the
one-on-one, in-depth interviews I am able to investigate the types of conversations that take place between college students in determining the best ways to prevent unwanted pregnancies and sexually transmitted infections, both within committed partnerships as well as within one-time or casual sexual encounters.

In chapter two, I examine the current sociological literature related to sexual health decision-making and the sexual culture on college campuses in order to position my study within the existing research. More specifically, I first review the literature on sexual behavior responsibility decision-making and the differences between men and women regarding this issue. Next, I review the current literature on college students and their sexual activities, focusing on the popular literature related to the hook-up culture. Finally, I examine the sociological research on the Human Papillomavirus and the factors affecting HPV vaccine uptake.

In chapter three, I describe the collection and analysis of the quantitative and qualitative data used in my research. For the quantitative study, I provide a summary of the descriptive characteristics of the sample surveyed. For the qualitative study, I provide an overview of the characteristics of the participants I interviewed and an explanation of the setting in which our conversations took place. I use this chapter to specify the strengths of using two methodological approaches in this dissertation and the contribution of each approach.

In chapter four, I present the results of the quantitative survey and discuss the college students’ familiarity with the Human Papillomavirus and the HPV vaccine. This chapter discusses the knowledge of college students regarding the Human Papillomavirus and identifies the main sources of this knowledge. Specifically, I look at the gender differences in the knowledge about the Human Papillomavirus, including the knowledge about how HPV is spread, its prevalence, and health consequences of contracting the virus. Additionally, an examination of
HPV vaccine uptake among this sample is also presented. The results from the quantitative study gives a broader context for discussing the nuanced findings from the qualitative interviews in the following chapter.

In chapter five, I discuss the findings of the qualitative interviews. The qualitative data from this study are meant to supplement the findings from the survey and give a more in-depth and thorough understanding of the acquisition of knowledge and decision-making process for sexual responsibility than what is obtained from just the quantitative data. I particularly focus on the sources of support and information that college students have concerning their overall sexual health and safe sex practices. These results include the sources with which college students engage when they have general questions about sexual health and behavior as well as in times of crisis or concern. I also discuss the importance of one’s past sexual experiences and relationship history on their sexual behavior decision-making, and the difference in their practices depending on their current relationship status. I also discuss the differences between college students’ perceptions of their sexual behavior responsibility and their actual behavior. The chapter ends with a discussion of the interviewees’ knowledge about the Human Papillomavirus and a placement of HPV in the larger sexual behavior responsibility paradigm.

Finally, in chapter six, I provide a discussion of this study’s findings and outline the overall contribution of this research to the field of sociology as well as its applicability to public health policy. This chapter concludes with a discussion of the major limitations of the study and proposes directions for future research.
CHAPTER TWO

REVIEW OF THE LITERATURE

Approximately 36% of young adults (aged 18-24) are currently attending college in the United States (NCHEMS Information Center 2014). College is a period of increased freedom and individual exploration. It represents a unique period in an individual’s life, often the first time he or she is out of their parents’ house yet before they truly enter the “real” world of work and adult responsibilities. Researchers are interested in unpacking this unusual period in one’s lifespan and aim to understand the everyday lives of college students, especially their interactions with one another (e.g. Armstrong et al. 2009; Bogle 2008; Kimmel 2008). An important part of this examination is to understand how and why college students “partner up,” with the resulting literature defining the sexual exploits of college students as the “hook-up culture.” In the sexual behavior literature, hook-up culture is defined as any casual sexual contact between non-dating partners without an expectation of forming a committed relationship (Armstrong et al. 2009; Bogle 2008; Flack et al. 2006; Garcia and Reiber 2008; Paul et al. 2000; Paul 2006). The research on hook-up culture examines how college students initiate sexual encounters, what they do during a “hook-up”, and the differences between men and women regarding their expectation for interactions post hook-up.

The purpose of this dissertation is to establish a deeper understanding of how college-going men and women perceive and understand their responsibility toward their sexual behavior and health and to ascertain any similarities or differences that may exist between men and
women. In order to frame the proposed study, research from three different areas of sociology is detailed. First, I draw on the research on gendered perceptions of sexual behavior responsibility, focusing on gender as a social structure. Second, I describe the research that examines the sexual culture of college campuses, expanding my review of the current literature on the hook-up culture. Third, I discuss the research on the Human Papillomavirus (HPV) and the acceptance and uptake of the HPV vaccine. The Human Papillomavirus will be used as a case study to explore some of the broader questions about sexual behavior responsibility and decisions regarding safe sex practices and to update the issues and decisions that young adults must consider regarding sexual health. I have presented below a review of the literature found within each category and I highlight each of their relevance to my study.

Gendered Perceptions of Sexual Behavior Responsibility

Previous research has examined the relationship between gender and perceptions of sexual behavior responsibility and established how men and women make decisions about contraceptive use. In general, a majority of this research indicates that both men and women view decisions about sexual activity and contraceptive use to be equally shared between men and women (e.g. Fennel 2011; Grady et al. 2010; Grady et al. 1996). Researchers have approached sexual behavior responsibility and contraceptive decision-making by specifically looking only at men (Merkh et al. 2009; Grady et al. 1996), only at women (Reed et al. 2014; Frost et al. 2007), and at both male and female partners in committed relationships (Fennell et al. 2011; Grady et al. 2010).

While there is limited research in the sexual behavior literature regarding the relationship between perception of behavior and actual behavior, connections have been established in the
delinquency literature, specifically regarding the influence of perceptions of peers’ delinquent behavior on whether or not an individual will participate in delinquent behavior themselves. This literature has established a connection between adolescents’ involvement with delinquent friends as a predictor of one’s own self-reported delinquent behavior (Warr and Stafford 1991) and suggests that adolescents often times misestimate the delinquency of their friends (Haynie and Osgood 2005). More specifically, overestimating delinquency in peers results in more delinquency for the individual, regardless of the actual behavior among peers (Young and Weerman 2013). Potentially a similar pattern may appear in regards to sexual behavior responsibility. College-going men’s and women’s actual behavior may be connected to their perception of whether or not potential sexual partners are willing or able to practice safe sex. This could result in a difference between what college students suggest should happen in a sexual counter and what behavior actual takes place.

*Men and contraceptive decision-making*

Grady et al. (1996) examined men’s perceptions of responsibility for sexual behavior decisions and contraceptive use within couples. Using the 1991 National Survey of Men, a nationally representative survey of men aged between 20-39, it was found that the majority of men (61%) believed that decisions about sex (i.e. which type of sex to engage in) within relationships are shared between men and women while 78% reported that men and women share equal responsibility when making decisions about contraceptive use. Among those who did not have any egalitarian views about responsibility and decisions about sex (i.e. what type of sex to engage in), most viewed it as a woman’s issue while decisions about contraception were viewed as a man’s responsibility (Grady et al. 1996).
Additionally, researchers looking specifically into young men’s understanding of hormonal contraception found that attitudes, norms, and behaviors associated with hormonal contraceptive decisions and use among young unmarried men varied greatly (Merkh et al. 2009). Hormonal contraception includes barriers to pregnancy by exclusively interrupting a female’s reproductive process through the use of pills, rings, and injections (Merkh et al. 2009). The researchers found that the differences in attitudes and practices regarding hormonal contraceptive use are influenced by several factors, including sexual experiences, age, and relationship type. One of the biggest barriers to communication regarding hormonal contraception was found to be limited knowledge about contraceptives among a majority of the male participants (Merkh et al. 2009).

One of the barriers to men’s knowledge about hormonal contraceptives is that this prevention technique has remained exclusively available only for women. Previous research has examined the acceptance and uptake of another sexual health technology by looking at the development of a male hormonal contraceptive pill (Oudshoorn 2003). Although the medical technology for the male pill was easily developed in a laboratory, there were several social hurdles that made it unsuccessful in practice (Oudshoorn 2003). Oudshoorn (2003) explains that the main hurdle was including men as responsible partners in family planning practices. Previously, men had not been included in the discourse on family planning and contraceptive use was seen primarily as a woman’s responsibility (Oudshoorn 2003). Similarly, while it seems that medical researchers were able to develop the male Human Papillomavirus vaccine quite quickly, this did not assure that society was ready and willing to accept the male HPV vaccine and that men are willing to be vaccinated. More specifically, because college-going men and women live in a culture of increased sexual experimentation (Bogle 2009) and are at a higher risk of
contracting HPV and other sexually transmitted infections (Koutsky 1997), it is important to investigate the issues of sexual behavior responsibility within this population. Additionally, because the sexual behavior responsibility paradigm encourages different types of participation between men and women, it is necessary to investigate the existing research on women and their contraceptive decision-making.

**Women and contraceptive decision-making**

When examining contraceptive use and decision-making among women, researchers have identified certain factors that help explain women’s use, non-use, and inconsistent use of contraceptives over time. Frost et al. (2007) used a nationally representative sample of 1,978 adult women who had been identified as being at risk for unintended pregnancy. Overall, the ambivalence about avoiding pregnancy was strongly associated with both contraceptive non-use and having a gap in its use. The researchers also identified other factors associated with risky contraceptive behavior, including: having less than a college education, being black, being between the ages of 35 and 44, having infrequent sexual intercourse, not currently being in a relationship, being dissatisfied with one’s method of contraception, and feeling that contraceptive service providers were not available to answer method-related questions (Frost et al. 2007). Some of these factors could be important predictors of college-going women’s contraceptive use, specifically focusing on those students who are not currently in committed relationships. Additionally, it is important to understand how the risk of contracting sexually transmitted infections could influence women’s behavior and decisions. The Human Papillomavirus and HPV vaccine are especially important because of the serious health complications that women with certain strains of HPV may develop.
Research using qualitative data collected from young women attending community colleges identified five main factors that influence contraceptive use (Reed et al. 2014). They are: (1) variations in women’s level of efficacy (her ability to put an intent to use contraception into practice), (2) differences in the actions and attitudes of the male partners, (3) being in a long-term relationship, (4) whether a woman experienced any side-effects by using her contraception, and (5) possible misinformation about pregnancy risk (believing herself to be infertile) (Reed et al. 2014). All these reasons combine at different times to explain women’s patterns of contraception consistency.

*Couples and contraceptive decision-making*

One of the limitations of the research looking at contraceptive use discussions and decision-making is that much of it relies on reports from only one person involved in a particular sexual relationship, either the man or the woman (e.g. Grady et al. 1996; Frost et al. 2007). Additional research has tried to address this limitation by talking with both men and women who are together in a committed relationship. Grady and his colleagues (2010) focused on the role of relationship power in determining a couple’s contraception use in the United States. Results from this study, looking at the 2006 National Couples Survey, suggested that both men’s and women’s preferences are significantly related to the couples’ choice of a contraceptive method. Additionally, women in married and cohabitating relationships appear to have a greater power over the choice of contraceptive method than women who are in dating relationships (Grady et al. 2010). These findings raise the question of how contraceptive decisions are made within the hook-up culture.
The qualitative research on this topic has also found that while men and women believe in gender equality in terms of their decisions about contraceptive use, there is a gendered division when it comes to the responsibility for the usage of specific types of contraceptives. More specifically, Fennell (2011) found that contraception is socially framed as being largely a “women’s sphere,” and that women are primarily in charge. The one exception is in relation to condom use. Both the male and female participants in Fennell’s (2011) study reported that they expected the men to take primary responsibility for condom use while the women should take primary responsibility for hormonal contraceptive use. Researchers have also determined that condom use is more frequent in sexual encounters between individuals who are not in a relationship and quickly drops off after a serious relationship begins. This may account for the differences in men and women’s perceptions of sexual behavior responsibility between those with different relationship statuses.

Limitations of the previous literature

A shortcoming of much of this research is that it neglects the understanding of how individuals who are not in committed relationships, those who are potentially at a larger risk for contracting sexually transmitted infections and may have more to lose from an unintended pregnancy, make decisions about contraceptive use and communicate these decisions to their potential sexual partners. College students are a large section of this population, as college is a period of increased sexual experimentation and risk taking (Kimmel 2008). Students who engage in casual sexual encounters with multiple partners might be at a larger risk of contracting sexually transmitted infections, more specifically the Human Papillomavirus (Centers for Disease Control 2013a). The existing research largely neglects this important piece of sexual
behavior responsibility because it focuses largely on couples who are not concerned about contracting sexually transmitted infections and whose primary use of contraception is to avoid unwanted pregnancy (Grady et al. 2010). In order to examine the decision-making process among college students, it is important to review the literature on the culture in which they inhabit.

_Sexual Culture of College Campuses_

College is a period of increased sexual experimentation and freedom (Kimmel 2008). The current social science research has taken a particular interest in understanding what has come to be known as the “hook up” culture that is pervasive in college campuses (Bogle 2008; Armstrong et al. 2012; Allison and Risman 2013). Researchers have found that there are gender differences in casual sex preferences between college-going men and women (England and Bearak 2013). While high percentages of both college-going men and women indicate an interest in romantic relationships if they were to meet the right person, college-going men indicated more interest in casual sex as compared to college-going women (England and Bearak 2013). Conversely, more college-going women reported that they would not have sex with someone they were not in love with, as compared to college-going men (England and Bearak 2013).

Other researchers have looked into the college environment as a factor which influences gender differences in students’ preference for casual sex (Bogle 2008; Hamilton and Armstrong 2009). Hamilton and Armstrong (2009) found that the current culture on college campuses discourage relationships and makes “hooking up” more appealing for both college-going men and women. The authors argued that research that closely examines the sexual experiences of young men is important to fully understand how they feel about relationships, what their
perceptions of women’s expectations are, and how this affects other life issues (Hamilton and Armstrong 2009). In order to understand the mechanisms that influence college students’ knowledge and decision-making process relating to their sexual health and sexual behavior responsibility, I look at the experiences of college-going men and women more specifically, focusing on how each of them act under the constraints of masculinity that is inherent in the hook-up culture.

*College-going men and the hook-up culture*

Part of the culture that exists on college campuses has significant effects on the way college-going men view sexual encounters and develop expectations for sexual activities. Many men who are currently in college exist within a specific type of culture of masculinity, identified as “guyland” by Michael Kimmel. In his book *Guyland: The Perilous World Where Boys Become Men*, Kimmel (2008) describes “guyland” as:

> the world in which young men live. It is both a stage of life, a liminal undefined time span between adolescence and adulthood that can often stretch for a decade or more, and a place, or, rather, a bunch of places where guys gather to be guys with each other, unhassled by the demands of parents, girlfriends, jobs, kids, and the other nuisances of adult life. In this topsy-turvy, Peter Pan mindset, young men shirk the responsibilities of adulthood and remain fixated on the trappings of boyhood, while the boys they still are struggle heroically to prove that they are real men despite all evidence to the contrary (4).

A significant aspect of the culture in “guyland” is the desire and expectation to “hook up” with as many different women as possible (Kimmel 2008; Armstrong 2006). For college-going men, the hook up culture is all about conquest and it has little to do with the women involved – it is an opportunity for men to prove something to other men. Hooking up is about homosociality for men. In other words, it has less to do with men’s relationships with women and more to do with their relationships with other men. It is a way for men to compete with one another and establish
a ranking of “coolness.” It also offers a way to move up in their ranking among male peers (Kimmel 2008).

The role of masculinity

Kimmel’s (2008) “guyland” exists within a larger culture of masculinity. It is within this culture that the norms and expectations for sexual activity and sexual health for both men and women are defined. It is important to examine this culture of masculinity in order to fully understand the gender differences in one’s perceptions of sexual responsibility and how they are expressed through the attitudes, behaviors, and messages that men and women receive. In order to define a culture of masculinity, a society must view the position of men and women in opposition to each other. Putting it more simply, masculinity can only exist in contrast to femininity (Connell 2005). Connell and Messerschmidt (2005) argued that the concept of hegemonic masculinity has been influential in gender studies across many different academic fields and has also been used to understand various men’s health practices, including risky sexual behavior.

The idea within a culture of masculinity is that the only appropriate sexual expectation is “obligatory heterosexuality.” There are no other alternative behaviors for men and women. This “obligatory heterosexuality” makes heterosexuality the norm and all other lifestyles “abnormal.” This unreasonable expectation is real for both males and females, and demands women to aspire to be attractive and available to men at all times, leaving them with few other options (Connell 2005). The difference in expectations for men and women could lead to a difference in how they perceive their own responsibility for sexual behavior and health. The Human Papillomavirus is
an example of a current issue in sexual health that may illustrate these gender differences in responsibility for preventing sexually transmitted infections and maintaining sexual health.

*College-going women and the hook-up culture*

Alternatively, the current culture plays out differently for college-going women. While hooking up on college campuses may seem spontaneous, in reality there is a great deal of planning involved. This includes elaborate rituals that guys go through, known as “the girl hunt,” which include drinking (and pre-gaming) and having a “wing man” (Kimmel 2008). However, the “planning” that goes into hooking up among girls is very different (Kimmel 2008):

> Since they know that hooking up is what guys want, the girls can’t be “spontaneous” about it. They have to think- whether or not, with whom, under what conditions – and plan accordingly; remembering a change of clothes, birth control, and the like. They have to decide how much they can drink, how much they can flirt, and how to avoid any potentially embarrassing or even threatening situations. The guys lounge in comfort of the illusion of alcohol-induced spontaneity; the women are several steps ahead of them (Kimmel 2008: 199).

Kimmel’s (2008) quote suggests that college-going women are not only more aware of the dangers involved in hooking up, but are also more likely to take responsibility for practicing safe sex when hooking up. There seems to be an unspoken rule that women will provide the contraception and behave in a way that ensures that the encounter remains safe, all the while maintaining the illusion that the hook up is spontaneous and care-free in front of the guys. These behaviors suggest that there are gender differences in the way that college-going men and women perceive their sexual behavior responsibility within the hook up culture, with the majority of the planning and risk analysis left to women. Because of the recent shift in recommendations for the Human Papillomavirus vaccine to include boys and men, HPV is now becoming a part of the sexual behavior paradigm within which college students act and make
decisions. Like decisions regarding contraception and prevention of other sexually transmitted infections, college-going men may feel less responsible to vaccinate themselves against HPV as compared to college-going women.

*Gender structure theory*

In order to investigate the attitudes that college-going men and women have toward sexual behavior responsibility and contraceptive decision-making, I use Risman’s (1998, 2004) gender structure theory to investigate how gender is established at multiple levels and how the pervasiveness of the social construction of gender might help explain the behavior of college-going men and women in their sexual encounters. Specifically, Risman (2004) argued that “gender is deeply embedded as a basis for stratification not just in our personalities, our cultural rules, or institutions but in all these, and in complicated ways” (433). Gender structure is shaped by and thus has consequences on three different levels. Initially, gender exists at the individual level where each person develops their own gendered self. Second, gender structure is shaped by the interactions that men and women experience with one another because of the cultural expectations for each sex. Finally, gender structure can be found at the institutional level, where resources and distributed material are gender-specific (Risman 2004).

Understanding gender as a social structure results in an examination of how it is that gender inequality exists in society, or more specially, how it is that gender has the ability to constrain or enable individual behavior and experience. Men’s and women’s decisions about practicing safe sex and what they feel they can do might be influenced by their own personal beliefs about their gendered roles, the interactions that they have with the opposite sex, and the information they receive from institutions, especially medical institutions, regarding their roles.
At each of the three levels identified, men and women are left with different expectations and options in regards to their decision making and behavior. For example, men and women might make different decisions regarding their sexual health and the use of safe sex practices because the structure within which they make these decisions allows to participate in some behavior but not others, and the same for men. Further, Risman (2009) argued that gender structure does not have to be consistent across individual, interactional, and institutional levels and that it is not static. This means that while we may still exist within a structure of gender that privileges men by and large, it is also true that the rigid confines demanded of traditional femininity no longer exist (Risman 2009). This partial shift in the gender structure, whether at the individual, cultural, or institutional levels, might result in a shift in men’s and women’s understandings and perceptions of sexual behavior responsibility, especially among younger generations.

Additionally, the use of sexual scripts in connection with the gender structure theory can help to explain the individual differences that may exist between men and women in their perceptions of sexual behavior responsibility. Sexual scripts are the socially prescribed behaviors that men and women follow that are largely determined by such factors as an individual’s gender or the larger cultural attitudes of a society (Gagnon and Simon 1973). With regard to sexual behavior responsibility and the use of contraceptives to prevent unwanted pregnancy and sexually transmitted infections, Sacco et al. (1993) argued that women who endorse traditional sexual scripts (i.e. that women must maintain a feminine role and be submissive to their male partners) may lack the necessary assertiveness and skills which are needed to initiate or enforce condom use.

One popular way to examine the influence of sexual scripts is to use vignettes as examples of scripts and then measure the participants’ reactions toward certain situations based
on the vignettes they have been given. Ross-Bailey et al. (2014) found that the responsibility for suggesting condom use in a sexual encounter is largely guided by traditional sexual scripts. While these vignettes are an interesting way to approach the subject of sexual behavior responsibility, they may fail to examine how the decisions are actually made in real sexual encounters. In-depth interviews that ask college students about their recent sexual encounters will help to further uncover how such decisions are made, which factors influence the practice of sexual behavior responsibility, and how the acts of responsibility may differ depending on an individual’s gender, relationship status, and sexual history.

Gender structure theory and sexual script theory are useful for my research as I aim to understand the factors that influence college-going men and women when making decisions about contraception use and uptake of the Human Papillomavirus vaccine. The decision-making process also includes the kind of sources from where they receive their sexual health and behavior information, how the messages that they receive regarding these issues may differ between men and women, and how the interactions between men and women in different types of relationships shape their expectations and behaviors in their sexual encounters. Risman (2004) also argued that one of the important roles of critical scholars is to also aim for social transformation, and the goal should be to understand the mechanisms that are currently creating inequality in order to change them to create a more just and equal world. Results from the proposed study could have important implications in this area as it could be used to encourage both college-going men and women to equally participate in sexual behavior responsibility.
Limitations of the previous literature

The primary concern within the campus culture of hooking up is the decisions that college-going men and women make when it comes to practicing safe sex. College-going women differ on a variety of predictive factors when it comes to the frequency with which they discuss their sexual histories with new sex partners. These factors include age of first intercourse, history of committed relationships, age, alcohol use, and the number of previous sex partners (Moore and Davidson 2000). Although this research is useful in determining whether college-going women discuss important sexual health and behavioral issues with a potential sexual partner, the authors argued that the “content of such sexual discussions by these women was not determined in this investigation” and “propose that this is an important question for future research” (Moore and Davidson 2000: 227). My study addresses this limitation by adding a nuanced understanding of the decision-making process and the different factors that influence the discussions between potential sexual partners.

The Human Papillomavirus

Much of the previous research on contraception decision-making and responsibility has exclusively looked at unplanned pregnancy as a concern, mainly because so much of this research has examined only men and women in committed relationships (Fennell 2011; Grady et al. 2010). An important piece missing from this evaluation, one that is especially relevant to college students who are more likely to take part in casual sexual encounters (Bogle 2008), is the prevention of sexually transmitted infections. The Human Papillomavirus can be particularly useful as a case study to examine gender differences among college-going men’s and women’s perceptions of sexual behavior responsibility. The case of the Human Papillomavirus and the
HPV vaccine allows researchers to look into the participants’ attitudes about sexual behavior and sexual health responsibility, their actual behavior for preventing sexually transmitted infections, and the influence of messages from the medical field regarding the prevention and treatment for sexually transmitted infections. The Human Papillomavirus is an important case because it is the most common sexually transmitted infection in the United States, whose prevalence rates among college aged men and women are continuing to rise.

The Human Papillomavirus and the HPV vaccine have been studied from several different angles. The first and most obvious study was in the field of medicine, which aimed to understand the virus, how it is transmitted, the potential health consequences of contracting an HPV infection, and the development of potential medical technologies to prevent the virus. A second area of research is found within the social sciences. This research is concerned with the factors related to the uptake of the vaccine to prevent HPV, including knowledge about the Human Papillomavirus (Demspey et al. 2006) and its basic demographic characteristics (Brabin et al. 2006). The majority of the research on vaccine acceptance and uptake has examined parental decision-making (Marlow et al. 2007). A brief overview of the available medical information on the Human Papillomavirus and the HPV vaccine has been provided below, followed by a review of the social science literature on HPV.

*Medical research on the Human Papillomavirus*

The Human Papillomavirus (HPV) is a common infection that is passed on through skin-to-skin sexual contact, making complete sexual abstinence the only non-pharmacological way to prevent all types of HPV (Ault 2006). Most individuals are not aware of having HPV because many times it does not manifest in the form of noticeable physical symptoms. There are an
estimated 40 different strands of genital HPV, with some types (including HPV 6 and HPV 11) associated with almost all the cases of genital warts in both males and females while the other types (HPV 16 and HPV 18) are attributed to 99.7% of cervical cancer cases. HPV is the most common sexually transmitted infection in the United States, with approximately 20 million Americans currently infected and an additional 6.2 million people contracting the infection annually. Approximately 50% of sexually active people are likely to acquire an HPV infection at some point in their lifetime, with at least 80% of women acquiring some type of HPV infection by age 50. It is estimated that 10% of the United States population has an active HPV infection. HPV is most common among sexually active women in their late teens and twenties (Centers for Disease Control and Prevention 2013a).

Besides age and gender, sexual activity is the biggest risk factor for HPV infection. Condoms, which are effective in preventing the spread of many other sexually transmitted infections, do not prevent all HPV infections (Ault 2006). This fact makes the uptake of HPV vaccines more important, as they are the most definitive way of preventing HPV 6, 11, 16, and 18. HPV infection, unlike many other genitourinary infections, does not usually present many initial symptoms or develop clinical symptoms because the immune system is able to resolve most infections on its own, usually within two years of becoming infected (Centers for Disease Control and Prevention 2013a).

Only a minority of the patients with an HPV infection develop serious clinical problems (Ault 2006). There are other factors associated with an increased risk of initial HPV infection and the development of severe medical symptoms, like genital warts or invasive cancer. Individuals who smoke are more likely to develop cancer after contracting HPV. People who have the Herpes simplex virus, are immunosuppressed, or HIV positive are also at a higher risk
of contracting both HPV infection and HPV-associated diseases (Ault 2006). HPV also has specific health consequences for men and women, although women are at a greater risk of developing more serious health issues.

Certain high-risk types of HPV and persistent cases have the ability to transform the normal cells in women into abnormal cells. Over time, these abnormal cells may become cancerous and lead to the development of cervical cancer in women. Approximately 10% of the women having high-risk HPV on their cervix develop persistent HPV infections, which puts them at the risk of cervical cancer. Researchers have suggested that up to 99.7% of all cervical cancer cases in the United States are caused by these four strands of HPV. Every year, about 12,000 women in the United States are diagnosed with cervical cancer. Another 2,100 women are diagnosed with HPV-related vulvar cancer, 500 with HPV-related vaginal cancer, 2,800 with HPV-related anal cancer, and 1,700 with HPV-related oropharyngeal cancer (Centers for Disease Control and Prevention 2013a). Unfortunately, cervical cancer does not usually present any symptoms until it is has reached an advanced stage, which is why the CDC recommends women to undergo regular cervical cancer screenings (Centers for Disease Control and Prevention 2013a). There are HPV tests available for women over the age of 30 to help screen for cervical cancer. These tests are not recommended for use on children, men, or women under the age of 30. There is not a general HPV test for women to check for their overall “HPV status” (Centers for Disease Control and Prevention 2013a).

Like women, men may also contract genital HPV through genital contact, most often as a result of vaginal or anal sex, although it can be contracted during oral sex also (Centers for Disease Control and Prevention 2011). Men often contract HPV without experiencing any noticeable symptom, so it is easy for them to contract the virus and pass it on to their partner
without their knowledge. There are complications that result from certain types of HPV in men, including genital warts, and penile and anal cancer. The rate of these cancers are significantly lower than the rates of cancer in women; therefore, HPV does not pose as much of a health risk to men as it does to women. In the United States, there are approximately 400 men who are infected with HPV-related penile cancer, 1,500 men with HPV related anal cancer, and 5,600 men with cancers of the oropharynx (such as the back of the throat, base of the tongue, and tonsils) every year. Only about 1% of the sexually active men in the United States are likely to have genital warts at any one point in time (Centers for Disease Control and Prevention 2011).

There are also variations in the rates of HPV-related diseases for some men. Gay and bisexual men (men who have sex with other men) are approximately 17 times more likely to develop anal cancer than men who only have vaginal sex. Also, men with weakened immune systems, including those having HIV, are more likely to develop anal cancer. Currently, there is no HPV test that is recommended for use on men. The tests that are used to screen cervical cancer in women are not useful for detecting HPV-related cancers or genital warts in men. (Centers for Disease Control and Prevention 2011).

Presently, there are two vaccines available to prevent certain types of genital HPV infection. Cervarix (developed by GlaxoSmithKline), approved for use in females aged 9 to 26 in 2009, prevents HPV types 16 and 18 (GlaxoSmithKline 2012). Gardasil (developed by Merck), approved for use in females aged 9 to 26 in 2006, prevents four types of HPV – types 6, 11, 16, and 18. These four types are believed to cause most of the cases of cervical cancer and genital warts (Merck 2013). Gardasil was approved for use in males aged 9 to 26 in 2009. The vaccine is recommended for girls and boys who are between 11 and 12 years old, and it is also available for women and gay men up to 26 years of age and straight men up to 21 years of age for those who
have not yet received the vaccine or completed the three-shot series. The CDC recommends that individuals should receive the vaccine before becoming sexually active because the vaccine works best when individuals have not yet encountered any type of HPV. The vaccine is not as effective for those who have been previously exposed to the infection prior to their immunization (Centers for Disease Control and Prevention 2013a).

Social science research on the Human Papillomavirus

Compared to many medical interventions and prevention tools, the Human Papillomavirus vaccine is relatively new, having been introduced to the public only in 2006. Because of this, the research conducted on the Human Papillomavirus and HPV vaccine is sparse in the social sciences. I have reviewed the social science research that examines the acceptance and uptake of the HPV vaccine so far. The National Immunization Survey – Teens (from 2006 to 2011) found that the initial HPV vaccination rates (those who have reported receiving at least one dose of the vaccine) are around 50% for girls aged 13-17 and it is increasing every year. The rate of vaccination among girls aged 13-17 who have received all three doses of the vaccine is around 35%. These rates are still below the coverage of other common adolescent vaccines. The same study also found that only 8% of boys aged 13-17 had received at least one dose of the HPV vaccine, and only 1% of them had received all the three doses (Centers for Disease Control and Prevention, 2012).

Many studies have also looked into the acceptance of the HPV vaccine among different socio-demographic groups. Brabin et al. (2006) found that socio-demographic characteristics had no impact on the parents who approved of the vaccine for their children and those who did not. Ethnicity and age of the respondent were also not statistically associated with vaccine acceptance.
In a study on the mothers in England, Marlow and his colleagues (2007) found that demographic characteristics such as mother’s level of education, ethnic background, employment, and marital status did not affect their acceptance of the vaccine.

Previous research on the Human Papillomavirus vaccine aimed to investigate whether parent’s amount of knowledge about the vaccine affects their decision to have their children vaccinated against the virus (Dempsey et al. 2006; Lenselink et al. 2007). Dempsey and his colleagues (2006) found that when participants were provided with a fact sheet containing information about HPV and its vaccine, they scored higher on an HPV assessment. The knowledge provided by the HPV information sheet did not increase the likelihood of the participants accepting the vaccine (Dempsey et al, 2006). Lenselink and his colleagues (2007) also found that increased knowledge about HPV and cervical cancer would not necessarily mean an increased acceptance of the vaccine, and that about 88% of their sample would accept the vaccine regardless of the differences in several independent variables, including level of education and marital status. This raises the question of whether the 88% acceptance is a result of the efforts to publicize the vaccine.

The previous research on the Human Papillomavirus and its vaccine targeted parental intention to vaccinate children and looked at the basic socio-demographic differences with regard to decision-making (e.g. Marlow et al. 2007; Brabin et al. 2006), with a few exceptions have researchers investigated the responses that men might have to the vaccine and the factors that may affect their decision-making (Jones and Cook 2008). My study fills this gap in the literature and informs researchers and health care professionals on the knowledge of college-going men regarding HPV and the source of their information, in an attempt to better target this specific demographic section in a more successful way.
The Human Papillomavirus is one of the most prevalent sexually transmitted infections which has become the center of a great deal of medical research. While medical and social research has examined the factors affecting the vaccine uptake in girls and women, very little research has been conducted on these issues for boys and men. The results of my research could help inform medical professionals about the best ways to target this largely overlooked group in an attempt to increase the rates of vaccination. By understanding what college-going men know about HPV and the vaccine, as well as the source from which they are most likely to get their information, the medical field could better serve this group in terms of education and propagation.

The Human Papillomavirus is an especially important issue to examine among the college population. HPV is the most common sexually transmitted infection on college campuses and among young adults (aged 15-24), accounting for approximately three quarters of new HPV infections each year (Centers for Disease Control and Prevention, 2013b). Furthermore, because current college students (especially current college-going men) were in high school when the HPV vaccine was approved, it is possible that they might have missed the initial push for vaccination, which targeted 10 and 11-year-old children, and still qualify for vaccination.

Additionally, research has found that college students are relatively uninformed about what the Human Papillomavirus is, how it is contracted, its symptoms, the medical complications associated with the virus, and the available prevention methods, in comparison to other sexually transmitted infections, especially HIV (Trad et al. 2013). These factors make additional research, especially qualitative research, important in understanding the sources from which college students get their sexual behavior and health information, what they do with this information in safe sex decision-making, and how these issues might differ between college-going men and
women. Increasing our understanding of this process could also help inform and potentially increase the knowledge about contraception use among this population in the future.

*The Human Papillomavirus as a case study*

The Human Papillomavirus is a relevant example that can be used as a case study to investigate my research questions regarding sexual responsibility. HPV is a sexually transmitted infection that affects both men and women, yet it has been thought of primarily as a woman’s health issue. This classification is evident in the initial development of an HPV vaccine for women and a marketing campaign that promoted the vaccine for cervical cancer prevention rather than for the prevention of a sexually transmitted infection. The HPV vaccine has more recently experienced a shift to include boys and young men as its recipients and begun to include them in the discussion of the best way to prevent the virus. The development in vaccine recommendation may indicate a larger shift in the sexual behavior responsibility paradigm, to include men in decisions about their own sexual health. While the case of the Human Papillomavirus is timely, findings from this study might inform how men and women make decisions about their future sexual health issues (including a potential HIV vaccine).

*Theoretical and Practical Contributions*

My research has theoretical and practical implications for the field of sociology and in the understanding of the differences between men and women in terms of their perceived sexual behavior responsibility and action. With regard to sociology, the proposed study will contribute largely to the areas of sexual behavior research and gender theory. One of the biggest limitations of the research on sexual behavior and sexuality is a relative underdevelopment of theory
(DeLamater and Hasday 2007). My study aims to contribute to Risman’s (2004) theory of gender as structure, by using a qualitative approach to gain a deeper understanding of how gender either enables or constrains college students’ ability or willingness to practice sexual behavior responsibility at each of the levels Risman (2004) identified. More specifically by examining how institutions like college health centers, interactions in sexual encounters, and individual perceptions potentially result in college-going men or women ability to advocate for their sexual health. That is, whether there are differences between how college-going men and women perceive their ability to practice safe sex and ultimately to do so in specific sexual encounters.

My research also has practical implications for the introduction and acceptance of new medical information, and may inform medical practitioners about the directions they should take in furthering the prevention of HPV. Male acceptance of this vaccine could also provide important insight into their acceptance of the possible future vaccines for other diseases such as HIV, because both are sexually transmitted diseases and often carry a certain level of stigma. Additionally, a nuanced understanding of sexual behavior responsibility that this study provides could help incorporate more college-going men into discussions of sexual health as well as suggest appropriate ways for targeting men and women, thus encouraging more equal and active participation from both men and women.
CHAPTER THREE

METHODOLOGY AND METHODS

In this chapter, I address both the theoretical underpinnings of the methodology used to guide this study as well as the actual methods employed to collect the data. Broadly, methodology is understood as the “theory or analysis of how research does or should proceed” (Harding 1987: 2-3). Methods are the techniques that are used to collect empirical data and evidence (Naples 2003). I begin by examining the differences between quantitative and qualitative methodologies and argue in favor of the need for both these approaches in my research. Further, I provide a detailed plan of the quantitative and qualitative methods used in this study including participant recruitment, sampling strategy, sample characteristics, measurement instruments, and analysis as they relate to each methodological approach.

Methodology

This dissertation aims to answer the following research question: How do college-going men and women perceive their own and their partner’s responsibility for sexual behavior and sexual health?

Since there is a lack of qualitative research in the current literature concerning the process by which men and women come to understand their roles in sexual behavior responsibility and the decisions they make, this study consists of two separate but related methodologies: a quantitative cross-sectional survey and qualitative in-depth interviews. Broadly, the quantitative
methodology requires the use of post-positivist claims for the development of knowledge. More specifically, it employs strategies such as experiments and surveys to collect data for statistical analysis using predetermined instruments (Creswell 2003). Alternatively, qualitative methodology involves the collection of open-ended data. The goal of qualitative research is to develop themes from the data and use the constructionist perspective to establish a theory or pattern (Creswell 2003). This study uses a mixed-method approach of both quantitative and qualitative methodologies resulting in the use of numerical as well as textual information. The specific contributions of each methodology, as it applies to this study, are discussed below.

The quantitative survey in this study will establish the differences between men and women with regard to the knowledge of the Human Papillomavirus and acceptance of the HPV vaccine as well as the sources of sexual health information. The goal of this survey is to provide a context for the larger population from which the participants of the qualitative interview are drawn. The qualitative interviews examine why these differences exist by looking at the factors that influence sexual behavior decision-making through in-depth interviews. Each methodology is explained in detail below, including the participant recruitment strategies, description of the samples, measures and procedures, and a consideration of human subjects as participants. I begin by thoroughly explaining the quantitative methodology and then detail the qualitative methodology.

Quantitative Methods

The quantitative portion of this dissertation provides a larger context and understanding of the population from which the qualitative interviews are drawn. This background information provides an understanding of what college-going men and women know about the Human
Papillomavirus and how this knowledge affects their decisions on prevention and protection, specifically focusing on gender differences. I collected the quantitative data to answer the following quantitative research question:

*What are the differences between college-going men and women’s beliefs and decisions regarding the Human Papillomavirus and the HPV vaccine?*

More specifically, I test the following hypotheses:

**H1:** Compared to college-going men, college-going women have more knowledge about the Human Papillomavirus and the vaccine to prevent it.

**H2:** College-going women are more likely to have been vaccinated or willing to vaccinate, as compared to college-going men.

**H3:** College-going men and women perceive differences in their sexual behavior responsibility as a result of the differences in the information they receive regarding the Human Papillomavirus and the HPV vaccine.

*Research design*

In order to examine my research question, I designed and administered a cross-sectional online survey to undergraduate male and female students. The survey measurements have been used to assess the differences in the amount of knowledge about the Human Papillomavirus and the HPV vaccine among undergraduate men and women. The measures used in the survey and the techniques used for recruitment and data collection are explained below. Before data collection began, I conducted a pilot study with a small sample of students to test the survey instrument and on-line collection system. A more thorough description of the pilot study has also been included.
Survey instrument

The quantitative portion of the study utilizes a survey sent to the participants via the internet. The survey was created and made available using the online survey tool, SurveyMonkey. SurveyMonkey, founded in 1999, is an online survey development company that provides customizable surveys as well as data analysis, sample selection, bias elimination, and data representation tools. For the purposes of this study, I utilized the survey design and creation tools from the SurveyMonkey program but recruited the participants and analyzed the data separately.

There are both positive and negative aspects of using an on-line survey. The positive aspects include the ease of administration, as surveys can be sent directly to the participants and they can complete the survey wherever and whenever they would like. This is particularly useful when asking potentially uncomfortable questions related to sex, as participants can respond to survey questions easily in a place where they are comfortable. One of the negative aspects of using an on-line survey collector is the low response rate. Because students have to complete the survey on their own time, it can be difficult to get a high response rate. Although on-line surveys might make more sense when surveying a college-age population, the response rate, approximately 14%, could have been higher if a traditional paper method of administration was used.

The survey was 30 questions long and took approximately 10 minutes to complete. Before gaining access to the survey, participants had to agree to an informed consent form at the beginning of the survey (see Appendix C). The survey questions were broken down into four main categories. Participants were first asked basic demographic questions to ascertain the representativeness of the sample. The second section contained knowledge-based questions
about the Human Papillomavirus. The third section contained questions about the sources of the participants’ sexual health and behavior knowledge. The final section asked specifically about the HPV vaccine and its uptake. At the end of the survey, the participants were provided with an information sheet with resources concerning sexual health and HPV, if they should have questions or would like to speak with someone for additional information or support (see Appendix D). The following section addresses the survey question in more detail, including their origin and previous usage.

Sample

The sample for the quantitative component of the study is college-going men and women, approximately 18 to 24 years of age. These students were enrolled as undergraduate students at a mid-sized public university in northeastern United States. In the sections that follow, I explain the sampling and recruitment strategy used to administer the survey as well as provide a summary of the descriptive statistics of my sample and a discussion on the sample’s representativeness, in comparison to the university population.

Recruitment

Gaining access to all the student e-mail addresses was nearly impossible with regard to the specific university of this study. Therefore, the approach used to recruit students for survey participation was to contact the professors teaching general education courses in each of the six colleges of the university. These courses were randomly selected from a list of all the possible general education courses being offered during the fall semester by selecting every twelfth
course from the list of 831 possible general education class.\textsuperscript{2} A total of 26 course instructors were contacted for the purpose of student participation in the study (see Appendix B for the initial recruitment letter sent to instructors). Among the 26 instructors, 13 responded that they were willing to assist in the data collection (the other 13 did not respond at all). Based on the course enrollment size, the approximate number of students who received the link to the survey was 1,709. This is an approximate number, because it is impossible to know if the enrollment size provided on the university website is accurate. Additionally, it is also possible that the same student may have received the survey link multiple times from different instructors, if he or she enrolled in more than one of the courses that were sampled.

The course instructors who indicated their willingness to help with the data collection were sent a brief invitation to the study along with the survey link. The instructors could provide the survey link either on their course site or e-mail the survey link directly to their students. Students had the option to take the survey whenever they wanted and from any place where they are comfortable. The students were informed that their participation in the study was in no way connected to their credit for that particular course and was completely voluntary. Students were also informed that if they completed the survey, they would have the opportunity to enter their name and contact information, which was not connected to their responses, in a raffle drawing for a chance to win one of two pre-paid cash gift cards. I begin chapter four with a discussion of the overall composition of my survey sample and the summary statistics. As a part of this discussion, I have included the statistics from the whole university for comparison purposes.

\textsuperscript{2} In actuality, 831 courses do not represent the number of courses being offered as some courses are listed under multiple and separate sections for registration purposes. These course sections were added together during the selection and considered as one course.
**Measures**

The main survey measures I am interested in are discussed below. I provide a description of each measure, including its development and previous usage. The survey begins with several questions that address the demographic characteristics of the sample. Measures of participants’ knowledge about HPV and the vaccine, the importance of HPV among other sexual behaviors, and decisions about HPV vaccination are used to examine a potential sexual behavior responsibility paradigm shift that includes both men and women in the discussion about sexual health and safe sex practices. Each of the measurements are described below in detail (see Appendix E for the complete survey instrument).

**Dependent variables**

The dependent variables for the quantitative portion of the study aim to assess how college-going men and women differ in terms of their knowledge, beliefs, and decisions about the Human Papillomavirus. Knowledge about and behavior regarding the Human Papillomavirus and the vaccine to prevent it will be used as a case study to study the gender differences in the perceptions of sexual behavior responsibility.

**Knowledge of HPV:** The dependent variable aimed at using the Human Papillomavirus as a case study in evaluating participants’ knowledge about HPV and the HPV vaccine. These questions looked at the participants’ knowledge about the virus, the health complications associated with the virus, whom the vaccine protects and what it prevents. Questions regarding participants’ knowledge about the Human Papillomavirus and vaccine were adapted from the UNC Men’s Health Survey (Reiter et al. 2010). The UNC Men’s Health Survey includes a measure for HPV knowledge, which is scored by summing up the correct responses to eight
individual items. Respondents can then be classified as the following: “unaware of HPV” if they have never heard of HPV, aware of HPV with “low knowledge” if they have heard of HPV but answered four or less knowledge items correctly, or aware with “high knowledge” if they have heard of HPV and answered at least five of the knowledge items correctly (Reiter et al. 2010).

**Information Sources:** Another set of questions investigated the sources from which college-going men and women obtain their information regarding the prevention of pregnancy and sexually transmitted infections, including the Human Papillomavirus. Questions to measure where undergraduate men and women got their information about the Human Papillomavirus and vaccine were adapted from the UNC Men’s Health Survey (Reiter et al. 2010). These questions included items such as: “Have you ever heard about the HPV vaccine from any of these sources? Doctor or health care provider, friend or family member, brochure or poster, commercial or ad from a drug company, none of the above” and “Now think about what you have heard about the HPV vaccine in news stories or on websites. This does not include advertisements. Have you ever heard about the HPV vaccine from any of these sources? Television, radio, internet, newspaper, none of the above” among other questions (Reiter et al. 2010).

*Independent variable*

The independent variable in this study assesses the differences between the college-going men and women.

**Gender:** male, female, transgender (male to female), transgender (female to male).
Control variables

Control variables are included to ensure that certain variables did not account for the differences in college-going men and women’s perceptions of sexual behavior responsibility. These questions are consistently used in research examining college and university students and their behavior. Control variables include the following:

Age: in years.

Year in school: first year, sophomore, junior, senior.

Relationship Status: single, casually dating, in a serious relationship, cohabitating with a partner, married.

Pilot study

Before administering the survey, I piloted the survey with 18 undergraduate students enrolled in a mid-level sociology course at the university. The point of the pilot study was to address any issues that the questionnaire may have had, before bringing it out into the field. More specifically, I was interested in examining any confusion or concern regarding the wording or phrasing of the questions as well as any technical issues with the on-line survey program, SurveyMonkey.³

To conduct the pilot study, I spoke with the instructor of a mid-level sociology course who was familiar with my study. With her permission, I went ahead and spoke with her class to vaguely describe my research and the goal of my pilot study. Students were provided with the link to the survey via their online course website and could access the survey at the time and

³ Because survey questions are adaptations of previously used and tested survey instruments, I did not feel it necessary to test the reliability and validity of these measures in my pilot study.
place they chose for themselves. The survey was designed exactly the same as the survey for the actual study, with one exception. The final page of the survey asked the students some questions regarding the survey instrument and provided them with a space to write their feedback. The students were also given the option to enter their name and contact information into a raffle drawing for a chance to win a $25.00 prepaid cash gift card.

Eighteen out of the 30 students in the class responded to the survey, showing a 60% response rate. The sample included 13 women and five men. Eleven of the participants were juniors, six were seniors, while one was fifth year or beyond. Eight students reported being single, four reported that they were casually dating, four students reported that they were in a serious relationship but not cohabitating with their partner, one was engaged, and one was married.

The pilot study indicated that there were not any significant issues with the survey instrument or the on-line survey program. All the participants indicated that the survey directions were clear enough and easy to understand and the survey flowed well. There were no significant suggestions for changes to be made to the survey.

**Qualitative Methods**

Previously, I have discussed the benefits of using a qualitative methodology for examining my research question. The actual methods I used to pursue this approach have been detailed below. Based on the literature I discussed in chapter two, I expected to see a deviation between college-going men and women in terms of their beliefs about sexual health and behavior issues and its effect on their lives. I also anticipated differences in the views of college-going men and women regarding their sexual encounters and the understanding of their roles in
maintaining their own and their partner’s sexual health. Finally, I expected the presence of gender differences between college-going men’s and women’s beliefs and knowledge about the Human Papillomavirus and their experience with the vaccine. The structure of the interviews, recruitment strategy, and summary of the participant sample have been discussed below. Finally, I explain the theoretical approach I have used for data analysis when working with the qualitative data.

Research design

One of the biggest limitations of the current research on sexual behavior and responsibility is the relative lack of qualitative research that aims to understand the nuances involved in the decision-making process regarding the maintenance of sexual health when college students engage in sexual activities. In order to address this limitation and contribute to a greater understanding of the process of sexual behavior decision-making, this study uses a qualitative approach with semi-structured interviews of college-going men and women. The interview measurements aim to assess the differences between undergraduate men and women in terms of their perceptions of sexual behavior responsibility, their actual behavior during sexual encounters, and their amount of knowledge and experience with the Human Papillomavirus and the HPV vaccine.

Interviews

To collect data for this part of the study, I conducted semi-structured interviews with undergraduate college-going men and women. Semi-structured interviews are meant to take on a conversational tone and allow the interviewee to control the direction of the conversation. While
I had general and overarching questions and themes that I wanted to discuss, the flow of the interview was very much determined by the interviewee once it began (see Appendix F for the interview protocol). This approach allowed me to engage with the participants and analyze the issues which they considered important and worth discussing. Because of the open-ended nature of the interviews, the length of the interviews varied. On an average, the interviews took about one hour to complete.

All interviews were conducted in private study rooms on the university campus. These rooms were reserved ahead of time and used to ensure the participants’ privacy when discussing the sensitive questions contained in the interview. The interviews were audio-recorded and I took notes during the interview, immediately capturing any details I wanted to remember or which seemed important to the study.

Before the interviews began, the participants were given a brief description of my background as a researcher, including an introduction to my research interests and a general description of this study. Participants were given two copies of the informed consent and I outlined all the major components of their rights as a participant (see Appendix C for a copy of the consent form). I explained the process in which the data were going to be handled and analyzed for this portion of the study, including how data would be stored and how individual’s specific responses would be reported. I also discussed their rights as participants, including the right to end the interview at any point or to refuse answering any question they were not comfortable with. In order to proceed with the interview, each participant had to sign and date one copy of the consent form and return it to the researcher.

An interview protocol was developed to guide the researcher (see Appendix F). This protocol aimed to investigate the factors that influence college-going men and women in terms of
receiving information about sexual health and responsibility and then making decisions about these issues just before or during their sexual encounters. Part of the protocol focuses on the Human Papillomavirus as an example of a recent sexual health issue facing this population. At the end of the interview, the participants were given a list of resources available both on and off campus, in case they felt like they needed or wanted more information or had some concerns as a result of our conversation (see Appendix D). More specific resources were given to those participants who indicated that they had been a victim of sexual assault at some point in their life (see Appendix D) or had been the offender in a sexual assault (see Appendix D), during our conversation.

Sample

The sample for the qualitative component of the study was college-going men and women, 18 to 24 years of age. These students are currently enrolled as undergraduate students at a mid-sized public university in northeastern United States. In the sections that follow, I explain the sampling and recruitment strategy which was used to obtain participants as well as a summary of the descriptive statistics of my sample and limitations with the sample.

Recruitment

Similar to the quantitative section of this study, the recruitment approach for the qualitative interviews was to contact the professors teaching general education courses in each of the six colleges at the university. These courses were randomly selected from the list of all the possible general education courses being offered during the fall semester, by selecting every twentieth course from the list of 831 possible general education classes. A total of 21 course
instructors were contacted regarding student participation in the study (see Appendix B for the initial recruitment letter sent to instructors). Of the 21 instructors, ten responded that they were willing to assist in data collection (the other 11 did not respond at all). Based on the course enrollment size, the approximate number of students who received an invitation to participate in the survey was 1,658. This is an approximate number because it is impossible to know if the enrollment size given on the university website is accurate. Additionally, it is possible that the same student may have received the survey link multiple times from different instructors, if they were enrolled in more than one of the courses that was sampled.

Course instructors who indicated that they were willing to help with the data collection were sent a brief invitation to the study along with my contact information. The instructors could provide the invitation either on their course site or e-mail their students directly with the invitation. Students who were interested in participating in the study had to contact me. They were informed that their participation in the study was in no way connected to their credit for that particular course and was completely voluntary. Students were also informed that if they participated in the interview, they would be compensated for their time with a $10.00 prepaid gift card to either Dunkin Donuts, Walmart, or a gas station. The choice of gift card was left up to the student, to make the incentive as useful and attractive as possible.

Initially, I was contacted by 37 undergraduate women who were interested in being interviewed. Among them, I completed full interviews with 20 of them. One woman did not show up for her scheduled interview, another cancelled and never rescheduled, while the other 15 did not respond to the follow up e-mails for setting an actual meeting time. I was also initially contacted by ten undergraduate men who were interested in the study. Among them, six completed the interview. Two other male participants canceled their scheduled appointment and
never rescheduled. The other two never responded to the follow-up e-mails for scheduling. Overall, there was great difficulty in getting male participants for the interviews.

There may be several reasons for this shortage of male interview participants. First, as a result of the current sexual behavior responsibility paradigm, men do not experience the same types of health consequences as a result of unsafe sex practices (e.g. pregnancy, sexually transmitted infections, among others). Hence, they may be less concerned about these issues and therefore, less willing to discuss them. Second, because the invitation to participate indicated that I was a researcher conducting the interviews about sexual behavior, many college-going men may have felt less comfortable about reaching out to a female researcher, as compared to the college-going women. Finally, previous studies have also demonstrated the difficulty in recruiting male college students for research purposes (Sax, Gilmartin, and Bryant 2003; Hutchinson, Tollefson, and Wigington 1987; Wiederman 1999).

In order to attempt to increase the number of participants for the qualitative interviews, I also contacted the organizations at the university which connect the different fraternities and sororities on campus. The recruitment approach was the same as used when contacting the course instructors. Additionally, I posted flyers (see Appendix A) throughout the main areas of the college campus, including the student center, health center, and library, as well as the local businesses in the university town. These efforts did not have a significant impact on the overall response rate and the final sample included 20 college women and six college men. The overall composition of my survey sample and the summary statistics are described in chapter five.
Data analysis

I interviewed a total of 26 participants. Of these participants, 20 were women while six were men. In chapter five, I present a table detailing the demographic characteristics of the interviewed participants.

Before analyzing the data, I transcribed each interview word by word using the program Express Scribe Transcription. The process of transcribing allows researchers to become acquainted with the data (Reissman 1993). After completing the transcription, I created Microsoft Word files for the interviews. The Word documents were then imported into the qualitative software NVivo10 for data management and analysis. NVivo10 is a computer program specifically designed for analyzing unstructured data. My approach for the qualitative data analysis is actually multi-layered and includes both hand coding as well as the use of the qualitative research software program. First, I printed out the interview transcripts, read them closely, and marked the coding in the text and margins of the document. Second, I used NVivo10 to organize and analyze my data with the computer software program. I utilized both analytical techniques for my qualitative data because coding by hand allowed me to become familiar with the data and establish direct contact with the ideas and themes within them. I also decided to use NVivo10 primarily for its organizational tools and the ability to code and organize hundreds of pages of data efficiently.

My study utilizes the grounded theory approach, where the data are repeatedly analyzed for the emergence of themes and where analysis and data collection happen simultaneously. Grounded theory, first explained by Glaser and Strauss (1967), takes an analytical approach in

\[\text{4 To be more specific, NVivo10 does not actually run an analysis of the data. It is used as a tool to organize the data and the researcher-established codes.}\]
which developing analytic propositions are prioritized over verifying them. The argument for a grounded theory approach is that if a researcher “minimizes commitment to received or preconceived theory, he is more likely to ‘discover’ original theories in his data” (Emerson et al. 1995: 143). This approach is particularly useful for my study as the current theoretical perspectives on sexual behavior are relatively underdeveloped. Additionally, grounded theory is well suited to semi-structured, in-depth interviews which allow participants to take the conversation in numerous directions.

In using a grounded theory approach, the researcher begins by coding the data in a systematic way and generating analytic categories from the data. Coding takes place at increasing levels of specification, from open coding which results in a summary of the data through the use of preliminary labels, to axel coding which creates conceptual families from the summaries, and finally selective coding, which moves all of the variables in the data into a formal framework to explain the social processes taking place. These categories are extended, elaborated, and integrated using theoretical memos made by the researcher at various points throughout the process (Charmaz 2003).

**Human Subjects Considerations**

This study uses human subjects for data collection, so it was imperative that all steps should be taken to ensure that no harm came to the participants. In order to ensure that research is ethical and participants are treated fairly, each part of this study was approved by the Institutional Review Board at the University of New Hampshire. This includes both the quantitative survey and qualitative interviews as well as the pilot study (see Appendix H for IRB approval letters).
Protection of human subjects

To fully protect all the study participants, certain procedures were established to ensure participants’ consent, safety, and privacy. Consent forms for both the quantitative and qualitative studies (see Appendix C), explaining that all the information provided by the participants would remain confidential and that their names would in no way be connected to their responses, were provided to the participants before their participation.

Risks of the study

Although there was no immediate risk to the participants, the questions that were asked might raise some levels of anxiety, as some dealt with sexual promiscuity and sexually transmitted infections. At the end of the survey and interviews, all the participants were provided with a resource sheet that included contact information for various health care organizations, both on and off campus, if they needed any additional support or desired further information.

Benefits of the study

The respondents were informed that the greatest benefit of participating in this study is the contribution that they would make to a larger body of knowledge. The interviewed participants were also informed that one of the goals of this study is to inform public health policy on the issues of college students’ sexual behavior, health, and responsibility. I explained to the participants that their contribution to this body of knowledge could potentially help inform university services, including health service centers, about the issues that concern college-going men and women the most and also find the best way to assist this population.
In the following chapters, I discuss the findings of both the quantitative survey and the qualitative interviews. Chapter four looks specifically at the quantitative data and addresses each of the specific hypotheses outlined earlier in this chapter.
CHAPTER FOUR

QUANTITATIVE RESULTS

The results of the quantitative analyses are presented in this chapter. I used the quantitative survey to investigate the knowledge of college-going men and women about the Human Papillomavirus and the HPV vaccine and the sources from which they obtained this knowledge. The quantitative results are primarily meant to provide an overview of the larger population from which my qualitative sample is drawn, in terms of issues related to sexual behavior responsibility. The findings from this overview will then inform the qualitative section of this study, which will provide a more in-depth and nuanced examination of these issues.

College students, as a group, are of particular interest because of the recent findings regarding the hook-up culture and the high-risk nature of college students’ sexual encounters (e.g. Bogle 2008; Kimmel 2008). Because of this, only those respondents who fit a more traditional college-age demographic pattern were included in the quantitative analysis.

More specifically, the data collected through the quantitative survey were used to address the following three hypotheses:

**H1:** Compared to college-going men, college-going women have more knowledge about the Human Papillomavirus and the vaccine to prevent it.

**H2:** College-going women are more likely to have been vaccinated or willing to vaccinate, as compared to college-going men.
**H3:** College-going men and women perceive differences in their sexual behavior responsibility as a result of the differences in the information that they receive regarding the Human Papillomavirus and the HPV vaccine.

The chapter is laid out in the following manner: first, I will discuss the basic demographic factors that describe the sample of participants I surveyed during my quantitative survey and compare it to the overall college population from which it was drawn. Then, I will provide an examination of each of these hypotheses. All the quantitative statistical analyses for this chapter were conducted using Stata 13.1, a statistical analysis program for the social sciences.

*Participant Demographics*

The average age of the respondents was approximately 19.5 years, with an age range between 18 and 24 years. Respondents over the age of 24 were dropped from the sample. This is because I am interested in observing how sexual behavior decisions are made among traditional college students in this study. Students beyond the age of 24 do not fit into some of the characteristics of traditional college students, in terms of their relationship status and sexual practices. Dropping those respondents who were over the age of 24 resulted in seven of them (2.7% of the sample) being removed from the analysis. The sample used for analysis was 243 participants.

Of the 243 respondents, 165 or 67.9% reported being female while 78 or 32.1% reported being male. No respondents identified themselves as transgender. The gender inequality in responses for the survey portion of this study is not surprising. Gender as a predictor of response rates for survey-based research has previously been established, especially among a college-going population (Sax, Gilmartin, and Bryant 2003; Hutchinson, Tollefson, and Wigington
1987). Additionally, this inequality in gender represents an overall difference in the male and female response rates throughout sexual behavior research (Wiederman 1999). In general, there is a difficulty in getting particularly college-going men to respond to either quantitative survey studies and especially to participate in qualitative interviews (Wiederman 1999). A more detailed discussion of the difficulty in obtaining college-going male participants for the qualitative portion of this study will be presented in chapter five. This difference in the gender of the participants may be even more important for this particular study, as it may speak to the gender divide that exists in the sexual behavior responsibility paradigm. This lack of male participation may suggest their overall disinterest in issues concerning sexual health and sexual behavior responsibility. It may also illustrate the effect of not including men previously into this paradigm and discussion, which might have resulted in the reluctance to see how these issues affect all of them.

With regard to the overall distribution of the sample among classes, it was 34.9% first-year students, 23.9% sophomore, 24.7% junior, and 16.5% who reported being seniors or beyond. The slightly higher percentage of first-year student participants made sense when considering that the recruitment for the survey came from courses at the university that filled the general education credits. These courses may have more first-year students in them than the others as first-year students, particularly those who had not yet declared a major, take these classes to fulfill general education credits before beginning their major courses (see Table 1).

Another important demographic characteristic for this study was the participants’ reported relationship status. It is possible that there might be differences in the decisions regarding safe sex and contraceptive usage depending on the type of relationship a person is in. One might expect that individuals participating in casual sex with multiple partners are more
likely to use protection than those who are in committed relationships. It might also be the case that the type of contraceptive used will differ depending on the relationship and the concern over any risk. For example, couples in committed relationships might only use oral birth control, while those participating in casual sexual encounters might be more likely to use condoms. The influence of one’s relationship status on safe sex practices and responsibility will be examined further in the qualitative results discussion.

**Table 1. Demographic characteristics of the participants**

<table>
<thead>
<tr>
<th>Age (in years)</th>
<th>mean</th>
<th>19.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>minimum</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>maximum</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>78</td>
<td>32.1 %</td>
</tr>
<tr>
<td>female</td>
<td>165</td>
<td>67.9 %</td>
</tr>
<tr>
<td>Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>first-year students</td>
<td>85</td>
<td>34.9 %</td>
</tr>
<tr>
<td>sophomore</td>
<td>58</td>
<td>23.9 %</td>
</tr>
<tr>
<td>junior</td>
<td>60</td>
<td>24.7 %</td>
</tr>
<tr>
<td>senior and beyond</td>
<td>40</td>
<td>16.5 %</td>
</tr>
<tr>
<td>College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering and Physical Science</td>
<td>13</td>
<td>5.4 %</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td>87</td>
<td>36.0 %</td>
</tr>
<tr>
<td>Life Science and Agriculture</td>
<td>86</td>
<td>35.5 %</td>
</tr>
<tr>
<td>Business</td>
<td>26</td>
<td>10.7 %</td>
</tr>
<tr>
<td>Health and Human Services</td>
<td>30</td>
<td>12.4 %</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>campus housing</td>
<td>148</td>
<td>60.9 %</td>
</tr>
<tr>
<td>off campus apartment</td>
<td>65</td>
<td>26.8 %</td>
</tr>
<tr>
<td>off campus family home</td>
<td>25</td>
<td>10.3 %</td>
</tr>
<tr>
<td>fraternity or sorority/other</td>
<td>4</td>
<td>1.7 %</td>
</tr>
<tr>
<td>Relationship Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>single</td>
<td>132</td>
<td>54.6 %</td>
</tr>
<tr>
<td>casually dating/other</td>
<td>28</td>
<td>11.6 %</td>
</tr>
<tr>
<td>serious relationship, cohabitating, married</td>
<td>82</td>
<td>33.9 %</td>
</tr>
</tbody>
</table>
The survey data was collected from the students of a mid-sized public university in northeastern United States. The university has approximately 13,000 undergraduate students, 54% of whom are female. The survey data was compared to institutional data for the same semester from the university: 15.9% of the student body is in the School of Engineering and Physical Science, compared to the 5.4% in the survey sample. Approximately 32% of students are in the College of Liberal Arts, compared to the 36.0% in this sample. Another 16.7% of the university population are in the College of Life Science and Agriculture, compared to the 35.5% in this sample. Approximately 20% of the university’s undergraduates are in the College of Business and Economics, compared to just under 10.7% of the survey sample. 13.8% of the university population are in the College of Health and Human Services, compared to the 12.4% in the sample. It is important to acknowledge that there might be some selection bias in the survey research in which students engaged in academic studies related to health or sexuality, particularly those from the College of Life Science, are more likely to participate and complete the survey. These students might also have a greater overall awareness and knowledge of the Human Papillomavirus, inflating these findings.

*Human Papillomavirus Knowledge*

To understand how college students take care of their sexual health, it is important to examine their existing knowledge about the Human Papillomavirus and the vaccine to prevent it. In order to make decisions about their sexual health, it would seem logical that having a certain understanding of sexually transmitted infections would be necessary. One interesting comparison would be to look at any potential gender differences that may exist between college-going men
and women in terms of their knowledge about the HPV vaccine and their decisions regarding vaccination (Hendry et al. 2013).

<table>
<thead>
<tr>
<th>Table 2. Human Papillomavirus awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heard of HPV before?</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Pearson chi2 = 9.1710 P = 0.010

Table 2 looks into the relationship between men and women and whether the participants have heard of the Human Papillomavirus before. In order to understand one’s position of protection against HPV in the sexual responsibility continuum, it is first important to assess whether HPV is an issue that is even on college students’ radar. Results indicate that most college students have at least heard of HPV before taking the survey, with 85.9% of the men and 96.3% of the women indicating that they had heard of the virus before. The differences between men and women could possibly contribute to an overall greater awareness among women concerning sexual health issues as well as the HPV vaccine campaign that specifically targeted women and framed HPV as a women’s health issue and its vaccine as a cervical cancer prevention tool.
Table 3: Human Papillomavirus knowledge: individual items (N = 243)

<table>
<thead>
<tr>
<th>Question</th>
<th>Male (N=78)</th>
<th>% Correct</th>
<th>Female (N=165)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think you get HPV from having sex?</td>
<td>75.9</td>
<td>77.1</td>
<td></td>
</tr>
<tr>
<td>Do you think HPV can cause genital herpes?</td>
<td>19.5</td>
<td>23.0</td>
<td></td>
</tr>
<tr>
<td>Do you think HPV infection is rare?</td>
<td>66.3</td>
<td>83.9</td>
<td></td>
</tr>
<tr>
<td>Do you think HPV can cause genital warts?</td>
<td>49.4</td>
<td>57.0</td>
<td></td>
</tr>
<tr>
<td>Do you think HPV can cause oral cancer?</td>
<td>31.0</td>
<td>37.2</td>
<td></td>
</tr>
<tr>
<td>Do you think HPV can cause anal cancer?</td>
<td>26.2</td>
<td>31.6</td>
<td></td>
</tr>
<tr>
<td>Do you think HPV can cause penile cancer?</td>
<td>27.4</td>
<td>39.0</td>
<td></td>
</tr>
<tr>
<td>Do you think only people who have sex with lots of other people get HPV?</td>
<td>73.8</td>
<td>84.9</td>
<td></td>
</tr>
</tbody>
</table>

The overall results from the previous tables indicate that women have a more accurate knowledge about the Human Papillomavirus and the consequence of contracting it. A higher percentage of women were correct in both their understanding of the risk of contracting the virus and the potential health consequences of having it. This difference in understanding HPV could be attributed to the fact that women are given more information about the virus and vaccine as compared to men, reinforcing it as a women’s health issue and making women responsible for maintaining sexual health.

Responses from the eight Human Papillomavirus knowledge questions were assembled into a scale to assess and compare the overall HPV knowledge of men and women. The final score was measured by summing up the number of correct responses from the eight questions. In Table 4, I present the results of a t-test which analyzed the relationship between gender and knowledge. The mean knowledge score for women was 4.36 out of 8, while the mean score for
men was 3.63. The results indicated that the HPV knowledge difference between college-going men and women is statistically significant at the p=.05 level. This difference could be the result of previous HPV vaccine campaigns that targeted women as well as a greater likelihood that women may have been provided with HPV and HPV vaccine information by health care providers. It may also speak of the overall sexual behavior responsibility paradigm which emphasizes the role of women in maintaining their own sexual health.

Table 4. Human Papillomavirus knowledge: total score (N = 243)

<table>
<thead>
<tr>
<th></th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>female</td>
<td>165</td>
<td>4.36</td>
<td>.16</td>
<td>2.07</td>
<td>4.05 4.68</td>
</tr>
<tr>
<td>male</td>
<td>78</td>
<td>3.63</td>
<td>.24</td>
<td>2.16</td>
<td>3.16 4.11</td>
</tr>
<tr>
<td>combined</td>
<td>243</td>
<td>4.12</td>
<td>.13</td>
<td>2.13</td>
<td>3.86 4.39</td>
</tr>
<tr>
<td>t = 2.57</td>
<td></td>
<td></td>
<td>degrees of freedom = 248</td>
<td>P = 0.01</td>
<td></td>
</tr>
</tbody>
</table>

Sources of Information

While it is important to specifically understand what college-going men and women know about the issues related to their sexual health and the Human Papillomavirus, it is equally important to examine where their knowledge comes from. An essential component of this investigation should focus on the perceptions of the education they have received and the sources of the current information available to them. This will help us to understand if college students utilize the sources available to them and if so, what specific purposes do these sources serve.

In order to understand the knowledge of college students about their sexual health and safe sex practices and how they utilize such information to make decisions in particular sexual encounters, we must first determine if they can even recall having received any formal sexual education. As a basis for this investigation, this survey asked college-going men and women if they could recall having taken a sexual education course in high school.
Table 5 presents the percentage of college-going men and women who could recall having received formal sexual education while in high school. The results indicate that an almost equal number of men and women (approximately 87%) remembered taking some sort of sex education course while in high school. The questions that arise after this are: what was their perception of the formal sex education they received? Did they find the class informative and useful? Do they remember any information from the class? These questions cannot be easily assessed by the available survey data. Instead, conversations during the in-depth interviews attempted to address these nuances by asking participants about their experience with sexual education in high school. Findings from those conversations are presented in Chapter 5.

**Table 5. High school sexual education (N = 243)**

<table>
<thead>
<tr>
<th>Remember taking sexual education?</th>
<th>no</th>
<th>yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (N=78)</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td>[13.1%]</td>
<td>[86.9%]</td>
<td></td>
</tr>
<tr>
<td>Female (N=165)</td>
<td>22</td>
<td>153</td>
</tr>
<tr>
<td>[12.8%]</td>
<td>[87.2%]</td>
<td></td>
</tr>
<tr>
<td>Pearson chi2= 0.01</td>
<td>P= 0.91</td>
<td></td>
</tr>
</tbody>
</table>

**Perceptions of Responsibility**

While the information that college-going men and women have regarding sexual health and safe sex is an important factor in understanding safe sex practices, it is also important to ascertain how college-going men and women perceive the responsibility of maintaining their sexual health. More specifically, in addition to knowing what sexually transmitted diseases are and how best to prevent them, the perception that college students have regarding the actual practice of safe sex is essential in understanding the differences that may exist among them. For example, are college women more apt to believe that they should be primarily responsible for
practicing safe sex and encouraging safe sex with their partners? Or do they believe that responsibility should be shared between both partners equally? One survey question addressed this perception of responsibility among the college students.

A part of understanding the decisions that college students make regarding their sexual health and safe sex practices during sexual encounters has to do with their perception of responsibility in such situations. Table 6 presents the differences between college-going men and women with regard to the person who should be responsible for practicing safe sex during a sexual encounter. Almost 77% of the college-going males reported that they believed both partners should be responsible for practicing safe sex, as compared to 63% of the college-going women. Additionally, almost 35% of the college-going women reported that they believed they should be the ones responsible for practicing safe sex, as compared to 21% of the college-going men. This difference, although not statistically significant, fits the current sexual behavior responsibility paradigm which encourages women to be primarily responsible for safe sex and sexual health and puts a smaller amount of direct pressure on men to do the same.

Table 6. Safe sex responsibility (N = 243)

<table>
<thead>
<tr>
<th>Who should be responsible?</th>
<th>Male (N=78)</th>
<th>Female (N=165)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was not taught about this…</td>
<td>2 [2.7%]</td>
<td>2 [1.3%]</td>
</tr>
<tr>
<td>Both myself and my partner…</td>
<td>60 [76.7%]</td>
<td>105 [63.3%]</td>
</tr>
<tr>
<td>I should…</td>
<td>16 [20.6%]</td>
<td>57 [34.7%]</td>
</tr>
<tr>
<td>My partner should…</td>
<td>0 [0.0%]</td>
<td>1 [0.6%]</td>
</tr>
<tr>
<td>Pearson chi² = 4.602</td>
<td>P = 0.203</td>
<td></td>
</tr>
</tbody>
</table>

Vaccination

A new facet of responsibility in the sexual behavior paradigm is the emergence of the Human Papillomavirus vaccine and the approval of this vaccine for use by both men and women.
As the latest prevention that men and women can use to protect themselves from HPV (beyond using condoms or abstaining from sex), the HPV vaccine offers an additional opportunity to examine the responsibility that men and women practice in protecting and promoting sexual health.

Table 7. Human Papillomavirus vaccine and gender (N = 242)

<table>
<thead>
<tr>
<th>Vaccine only for women?</th>
<th>no/not sure</th>
<th>yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>73 [93.6%]</td>
<td>5 [6.4%]</td>
</tr>
<tr>
<td>female</td>
<td>137 [84.0%]</td>
<td>26 [16.0%]</td>
</tr>
</tbody>
</table>

Pearson chi²= 4.28    P= 0.04

Table 8. Human Papillomavirus vaccination (N = 242)

<table>
<thead>
<tr>
<th>Received the HPV vaccine?</th>
<th>no</th>
<th>yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>45 [57.7%]</td>
<td>33 [42.3%]</td>
</tr>
<tr>
<td>female</td>
<td>40 [24.4%]</td>
<td>124 [75.7%]</td>
</tr>
</tbody>
</table>

Pearson chi²= 25.73    P= 0.00

Table 9 presents the survey results of the question that looked into whether the participants were already vaccinated against the Human Papillomavirus. This question also asked the participants about the number of doses of the vaccine they have received, from 0 to 3. Results indicated that there is a statistically significant difference between college-going men and women with regard to the uptake of the vaccine, with 75.6% of women reporting that they have been vaccinated, compared to 42.3% of men. This difference could be because the vaccine received earlier approval for use in women than men, so women are experiencing higher levels
of its uptake due to their longer awareness about it. It might also be attributed to the differences in health care professionals’ recommendations and information dispersal which targets women more aggressively.

Table 9. Human Papillomavirus vaccine dosage (N = 240)

<table>
<thead>
<tr>
<th>Received at least one dose?</th>
<th>no</th>
<th>yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>52</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>[66.7%]</td>
<td>[33.3%]</td>
</tr>
<tr>
<td>female</td>
<td>48</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td>[29.6%]</td>
<td>[70.4%]</td>
</tr>
<tr>
<td>Pearson chi2</td>
<td>29.71</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion

The above results suggest that there are some fundamental differences between college-going men and women with regard to their knowledge of the Human Papillomavirus and their uptake of the HPV vaccine. The findings from the survey support previous literature which argues that college students are relatively uninformed when it comes to understanding what the Human Papillomavirus is, the medical complications associated with the virus, and the best ways to prevent infection (Trad et al. 2013). This study expands on these findings by breaking down this understanding by gender to gain a more thorough account of how men and women are different in terms of their awareness and knowledge of HPV.

The study also suggests that there might be some gender differences in the way that college-going men and women perceive their own personal responsibility for practicing safe sex and promoting overall sexual health, consistent with previous literature (Fennell et al. 2011; Grady et al. 2010; Merhk et al. 2009). This difference is especially apparent in the ways that college-going men and women feel they should contribute to overall practices of safe sex, as
evidenced by the emphasis for college women to utilize hormonal contraception and college men to be responsible for obtaining and using condoms.

These results raise questions about the perceptions that college-going men and women may have about the information they receive regarding sexual health and safe sex as well as the source of this information. Additionally, the quantitative results raise questions about how college students use this knowledge in specific sexual encounters and make decisions to either practice safe sex or not with their partners. These types of questions are difficult to ascertain through a survey methodology and seem better suited for qualitative interviews that allow the participants to explain the processes and their experiences in more detail, highlighting the issues that they deem important. Although the data collection for the quantitative survey and qualitative interviews began at the same time, the short time frame for the quantitative survey collection meant that the findings from the quantitative instruments could be used to inform the questions asked or topics included in the qualitative interviews. This allowed for a more in-depth examination of some of the gender differences identified through the quantitative survey. The results of the qualitative interviews are discussed in detail in chapter five.
In this chapter, I present the results of the qualitative interviews. I employed a mixed-method approach for this research so that I could examine both the breadth as well as the depth of information concerning college students’ perception toward their sexual behavior responsibility as well as their actual behavior in particular sexual encounters. For the qualitative component of the study, I use in-depth, one-on-one interviews to extend the findings from the quantitative component and present a more nuanced understanding of the factors that influence college-going men and women when making decisions during sexual encounters, which results in either choosing to practice safe sex or not. Chapter 5 details the findings from these interviews. I begin by discussing the sample of students who participated in these interviews and move on to provide demographic background characteristics for presenting an overview of the specific group I am discussing.

Using a grounded theory approach, I discuss the major themes that emerged from these interviews and how these themes help to explain the decision-making process undertaken by college students from their information or knowledge about sexual health to the actual decision of whether to practice safe sex during their sexual encounters. Grounded theory allows the researcher to inductively establish themes from first-hand observations (Singleton and Straits 1999). Focusing on the transcription from the interviews, I read and re-read the responses while
looking for the emergent themes. Several themes regarding the sexual behavior decision-making process of college students became apparent.

This decision-making process begins with understanding the source from where college students acquire their knowledge about sexual health and safe sex practices, both in formal settings and informal channels. Additionally, I look at the source of their foundational knowledge, including formal sex education classes, parents, and peers, among others, as well as the sources of information and support they use in their daily life, both for increasing their knowledge or for acute medical concerns. Consequently, I asked participants to discuss their safe sex decision-making in sexual encounters to ascertain how decisions are made and which factors influence the use of contraception. These factors include variables such as the relationship with the partner involved, the type of sexual encounter, and the presence of alcohol or illegal drugs for either party. In the context of these conversations, differences between men’s and women’s perceptions of responsibility began to emerge.

Another important theme that became apparent was the influence of previous experiences on the current position of the participants toward sexual behavior responsibility. I examined the effect of sexual abuse, trauma from unplanned pregnancy, or sexually transmitted infections on an individual’s position toward their own sexual health as well as their partner’s. Part of this conversation on sexual behavior responsibility included positioning the Human Papillomavirus within the participants’ considerations of safe sex practices. That is, do college-going men and women discuss HPV and their vaccination status with each other before engaging in sexual encounters for the first time? Finally, I discuss the relationship between the perceptions that college-going men and women have about their sexual behavior responsibility and their actual decisions, the decision regarding the practice of safe sex, and how to practice safe sex. The
results suggested that there is a disconnect between what college students say they should do during sexual encounters and what actually happens in that moment. At the end of the chapter, I discuss the limitations of the sample, specifically the lack of male respondents, and make an argument that the lack of male participation in this study is perhaps a finding in and of itself.

*Qualitative Sample*

The goal of a qualitative sample is to find a balance between the similarities and diversities of the interviewed subjects. Similarity between the subjects allow one to look for patterns and trends within their behavior or experience and draw conclusions about the specific population being examined, the college students in this case. At the same time, the sample should be diverse enough in terms of its demographic characteristics, so that one is able to reflect upon the important distinctions in the data. Table 1 below provides a breakdown of the sample, with its basic demographic variables.
Table 10. Interviewee demographics

<table>
<thead>
<tr>
<th>Sex</th>
<th>Age</th>
<th>Year</th>
<th>Major</th>
<th>Residence</th>
<th>Relationship Status</th>
<th>Sexual Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-01 female</td>
<td>19</td>
<td>sophomore</td>
<td>Nursing</td>
<td>on campus</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-02 female</td>
<td>22</td>
<td>senior</td>
<td>Bio-Medical Science\ Pre Vet</td>
<td>off campus\ apartment</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>M-01 male</td>
<td>21</td>
<td>senior</td>
<td>Anthropology</td>
<td>off campus\ apartment</td>
<td>single</td>
<td>homosexual</td>
</tr>
<tr>
<td>F-03 female</td>
<td>20</td>
<td>sophomore</td>
<td>Undeclared</td>
<td>on campus- dorm</td>
<td>single</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-04 female</td>
<td>19</td>
<td>first-year</td>
<td>Business</td>
<td>on campus- dorm</td>
<td>single</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-05 female</td>
<td>18</td>
<td>first-year</td>
<td>Speech Pathology</td>
<td>on campus- dorm</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-06 female</td>
<td>21</td>
<td>senior</td>
<td>English</td>
<td>off campus- apartment</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-07 female</td>
<td>18</td>
<td>first-year</td>
<td>Family Studies</td>
<td>on campus- dorm</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-08 female</td>
<td>18</td>
<td>first-year</td>
<td>Communications</td>
<td>on campus- dorm</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>M-02 male</td>
<td>18</td>
<td>first-year</td>
<td>Biology</td>
<td>on campus- dorm</td>
<td>single</td>
<td>homosexual</td>
</tr>
<tr>
<td>F-09 female</td>
<td>20</td>
<td>senior</td>
<td>Neuro-Science</td>
<td>off campus- apartment</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-10 female</td>
<td>21</td>
<td>sophomore</td>
<td>Undeclared</td>
<td>off campus- apartment</td>
<td>cohabitating</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-11 female</td>
<td>18</td>
<td>first-year</td>
<td>Communication Disorders</td>
<td>on campus- dorm</td>
<td>single</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-12 female</td>
<td>19</td>
<td>sophomore</td>
<td>Communications</td>
<td>sorority house</td>
<td>single</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-13 female</td>
<td>21</td>
<td>senior</td>
<td>Communications</td>
<td>off campus- apartment</td>
<td>single</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-14 female</td>
<td>20</td>
<td>junior</td>
<td>Sociology and Psychology</td>
<td>off campus- apartment</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-15 female</td>
<td>20</td>
<td>junior</td>
<td>Family Studies</td>
<td>on campus- dorm</td>
<td>casually dating</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-16 female</td>
<td>20</td>
<td>sophomore</td>
<td>Sociology</td>
<td>on campus- dorm</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-17 female</td>
<td>20</td>
<td>sophomore</td>
<td>Equine Science</td>
<td>on campus- dorm</td>
<td>engaged</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-18 female</td>
<td>20</td>
<td>sophomore</td>
<td>Music Education</td>
<td>on campus</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>M-03 male</td>
<td>25</td>
<td>junior</td>
<td>Bio-Medical Science</td>
<td>off campus</td>
<td>single</td>
<td>heterosexual</td>
</tr>
<tr>
<td>M-04 male</td>
<td>20</td>
<td>junior</td>
<td>English Journalism</td>
<td>off campus</td>
<td>single</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-19 female</td>
<td>22</td>
<td>senior</td>
<td>Neuro-Science</td>
<td>off campus- apartment</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>M-05 male</td>
<td>19</td>
<td>first-year</td>
<td>Undeclared</td>
<td>on campus- dorm</td>
<td>single</td>
<td>heterosexual</td>
</tr>
<tr>
<td>F-20 female</td>
<td>19</td>
<td>junior</td>
<td>Bio-Medical Science</td>
<td>off campus- apartment</td>
<td>serious relationship</td>
<td>heterosexual</td>
</tr>
<tr>
<td>M-06 male</td>
<td>20</td>
<td>junior</td>
<td>Business</td>
<td>off campus- apartment</td>
<td>single</td>
<td>heterosexual</td>
</tr>
</tbody>
</table>
The sample is 26 undergraduate college students from a mid-sized public university in the northeastern United States. There are 20 women and six men in the sample. The age of the participants ranged from 18 to 25 years, with an average age of 19.9 years. There was an even breakdown of the respondents from the four different class years: seven reported being in their first year at the time of the interview, seven in their sophomore year, six in their junior year, and six in their senior year. Fourteen participants reported that they were living on the university campus, mostly in university dormitories, while one participant reported living in a university sanctioned sorority house. The remaining 12 participants reported living off campus, mostly in off campus apartments. It should be noted that living in an off-campus housing provision does not necessarily prevent students from participating in weekend social events where sexual encounters might be initiated or take place. This particular university is set in a very small town with many privately-owned apartment complexes established exclusively for the student body.

Additionally, I asked the students about their current relationship status as it seemed that the type of sexual encounters discussed, either within the context of a committed monogamous relationship or a first-time encounter with an acquaintance or a stranger, might affect their decision to practice safe sex. Eleven students reported being single at the time of the interview, 12 reported being in a serious relationship, one reported to be casually dating, while one reported cohabitating with her partner, and one reported being engaged. The respondents’ sexual orientation was also noted in each of the interviews. Twenty-four respondents reported to be straight while two of them reported to be gay. Comparing gender and sexual orientations, all 20 of the female respondents identified as straight, four male respondents identified as straight, and two male respondents identified as gay.
A part of understanding the decision-making process in the promotion and maintenance of sexual health is to understand the kind of knowledge that college-going men and women begin with and where this knowledge comes from. The next section examines college students’ sources of sexual health knowledge, including any formal sex education classes they may have attended, the different types of sources they utilize, and the purposes for which they do so.

Sources of Sexual Health Knowledge

Previous research has looked into the importance of knowledge when it comes to making decisions about sexual behavior responsibility and what a couple should do to practice safe sex, whether it is preventing sexually transmitted infections or unwanted pregnancies (Brooks-Gunn and Furstenberg 1989). The interviews with the 26 college-going men and women in this study began by asking them the source of the majority of their information on sexual health. Respondents identified formal sexual education classes in school, parents (specifically mothers), peers and friends, the internet, and medical professionals and services as being important resources for their information about sex.

Formal sexual education classes

Most of the respondents said that they believed their knowledge about sex and sexual health (for example, male and female sexual organs, how to have sex, sexually transmitted infections, among others) came from some formal sexual education class or classes made available to them either during middle school or high school years. Many indicated that they felt these classes were inadequate and based on fear tactics to encourage students to avoid sexual activity, since they focused on the trauma of unplanned pregnancies or the discomfort of sexually
transmitted infections. Very few felt that they were given a comprehensive overview of sexual health and the best way to practice safe and responsible sex, although none of the participants indicated that they were given abstinence only sex education.

Two respondents in the sample identified themselves as gay men and spoke specifically about their difficulty in high school sexual education classes, indicating that their classes did not address gay sex at all, leaving them to educate themselves about gay sexual behavior and the best way to protect themselves. The sexual education courses were not very useful for their particular situations and the lack of gay sex education left them feeling ashamed of the feelings they felt. Brian, a 21-year-old senior, stated:

I didn’t really, I guess understand what I wanted…what I needed to know, you know? I mean, I definitely knew…I mean I knew about diseases. I knew to be safe in that respect and so I mean…I knew, like to use condoms and stuff like that. But like, I never really…I don’t know…I never really got…I never really got the kind of education to let me know that my situation was alright, you know. And so like, I don’t know…it was sort of a lot of shame…feeling shame in myself. Um, and there wasn’t really anything to let me know that I didn’t have to do that [feel ashamed], you know? There was no, like, examples of how it wasn’t a shameful behavior, you know.

Gay students are then left with few options beyond researching information on the internet and joining online gay communities for support. For these individuals, the internet became a much more important source of information than for straight respondents. Brian explained:

Well, like, I guess as I was becoming more sexually aware and mature I was using the internet at the same time, like, you know…I guess when I was in middle school I looked at a lot of pornography and stuff like that, you know? But then eventually that turned into me being generally curious about, um, like gay people in general, you know? So I ended up finding a lot of like message boards…you know, things like that. Just people my own age talking about the same sort of questions and stuff that I was going through and that helped me…I mean there was a lot of…there was a lot of helpful information on like safe sex and that sort of thing.
The internet not only became a source of information for the gay respondents in this study, it also became a place where they could find support and reassurance for their feelings that were not reflected or discussed in their formal sexual education courses. I discuss the role of the internet further in this chapter.

*Parents*

Respondents differed in their opinion when identifying their parents as the potential sources of information or support regarding sexual issues. This was largely based on an overall identification of their parents, and their relationship with them, as being open or more traditional or conservative. Particularly for the women interviewed in this study, there was a divide in their opinion about their relationship with their mothers and the type of resources they viewed their mother as providing. Some respondents indicated that they had a very open relationship with their mother and that much of their information about sex came from open discussions with their mother. Catherine, and 18-year-old first-year student, indicated that she had a very open relationship with her mother:

My mom and I since we’re really really close. We don't have those set up dates of, "Okay, this is our day to talk about sex." It just happens naturally in a way and I never felt uncomfortable talking to her about things like that. I remember when I was dating this boy, she mentioned, "Okay, if you need birth control, let me know and stuff." She knew that I was seeing the guy, like I would go to his house and stuff. She would mentioned things like, "Okay, if you need birth control, you let me know." I'll be like, "Mom, we're not having sex, relax." She would be like, "I know, I'm just telling you."

Respondents like Catherine also felt that they could go to their mothers with questions or concerns and that there was an open door for communication between them. The other respondents used their mothers as a source of emotional support after they had acquired their information (or medical assistance, if necessary) from other sources. They did not trust that their
mothers would have the adequate knowledge to teach them about sex or answer particular
difficulties and address the concerns they were having, but they did feel like their mothers would
be understanding and could provide some emotional support, especially if they had been dealing
with a sexual health concern.

The other group of respondents indicated that their parents (both mothers and fathers) were more conservative when it came to sex and they had never had conversations with their parents about sexual health or sexual behavior responsibility. Because of this, there was an unspoken understanding within the families that questions or concerns regarding sex should not be discussed. For instance, Emily, an 18-year-old first-year student, claimed:

"I'm an open person, so if I bring anything up or show too much skin she'll [her mother] get really uncomfortable and get upset and leave the room, or yell at me, and be like, "You need to stop. This isn't right. I'm your mother." In general, my dad's the same way. He's very, "No PDA." If I have my boyfriend over and I hold his hand, they'll freak out. It's a very no talk about sex, or anything to do with sexual or anything to do with birth control or anything like that is off limits to talk about. I got that and I never brought it up.

For many of these respondents, an older sibling would serve as a source of information or support. If not, they would be forced to look outside the family when they had questions about their sexual health. The most common types of outside support came from their peers and the internet.

It should be noted that there were gender differences in the way that participants discussed their families as sources of sexual health support. In general, women were more likely to identify a parent, especially their mother, as a source of support, either to provide them with information or as a source of emotional support, than the men in this study were. The men in the study were more likely to identify a sibling, often an older brother, as a casual, informal source
of support. Often older brothers provided a frame of reference for men as to what sexual behavior milestones they should be reaching, instead of how to practice safe sex.

*Peers*

College is a period of intense social interaction, the first time that many young people are away from their homes and their families, and the first time their networks grow broader to include those unrelated to them. Not surprisingly, for many respondents in this study, their peer group and close friends were an important source of support in terms of their sex lives. Most respondents did not indicate that they relied on their peers or friends if they had specific questions about sexual health, like symptoms of sexually transmitted infections. Instead, they considered them as emotional support, particularly if they had a sexual experience that seemed unusual and wanted some confirmation that their perception of what had happened was appropriate. Heather, a 19-year-old sophomore who lived in a university sorority house, described the role her friends played in the promotion of sexual health.

Honestly, my friends and I are so close in the sorority house that everyone just says how they feel, whatever. There will usually be someone be like, "That happened to me. Blah blah blah, just go to health services." To actually get the guts to walk over to health services might be like, "What do I do?" I feel like you kind of are like at the level you can go to your friends and then precede to go to health services but that's what I do here.

Heather does not necessarily regard her friends as sources of knowledge or information. Instead, they provide a sense of security and support, telling her that her experiences are normal and that dealing with sexual health related issues is “not a big deal.” In considering their friends as a source of support, college students, especially women, share their sexual experiences with each other.
The six men interviewed for this study did not identify their peers as being an important source of support or information for them in regards to their sexual health. For men, the internet appeared to be a more important source of support and information, especially for the two gay men interviewed. These findings are consistent with Kimmel’s (2008) research on college men in the hook-up culture. Kimmel (2008) suggests that peers provide motivation and encouragement for college men to participate in the hook-up culture and to acquire as many sexual partners as possible. Thus, conversations among male peers tend to focus on recent encounters or “conquests” instead of questions or concerns about their sexual health. For these questions, college men are most likely to go to the internet for answers.

*The internet*

In a society that is so focused on information technology and social media, it is not surprising that the internet provides a vital source of information for college students as they navigate important questions or concerns about their sexual health and behavior. Many respondents in this study indicated that they have used the internet for very specific purposes when it came to their sexual health. Particularly, if the respondents were dealing with health concerns they would go to the internet to confirm that these experiences were normal (or at least not abnormal) before taking their concern to someone in person (either a parent, peer, or medical professional). For example, if a respondent was experiencing certain physical symptoms in their genitals, they would research the symptoms on the internet, not necessarily to confirm what the condition was but to confirm that experiencing them was not abnormal, in order to avoid any discomfort or embarrassment before making an appointment with a medical professional.
For respondents whose sexual preferences are considered outside the mainstream (for example, gay men), the internet also helped as an important source of information as they felt that the traditional sources of information were inadequate or unavailable to them. They would use the internet to find community and emotional support that other individuals found from their families or their peers. It also provided these individuals with a chance to meet others with whom they could engage in sexual encounters, as they did not feel they had have the same avenues for “hook-ups” or relationships that straight college students have. Sam, a freshman, discussed his use of mobile applications and websites that allowed him to meet other gay men:

The first one I met through Adam for Adam and then, I have Grinder but right now I'm just talking to people, I haven't met anyone through there, but before Grinder I did get Tinder and I met this one guy there and he happened to [go to a university not far from here]. We talked on the app and he was going to [be nearby], this was actually over the weekend, because he had to go to a funeral and a wake, and I told him, "We should meet," so I took the train [to meet him] and then we hung out Sunday. I spent the night and then I came back Monday. We did have sex. I brought one condom. He used it and we didn't have lube so it was a little uncomfortable for me but I told him that I wouldn't feel comfortable reversing roles because I didn't have a condom and he understood that. We did oral.

These applications provide young college students, who do not play a traditional role in the college hook-up culture, with an opportunity to meet potential sexual partners. Applications like Grinder remove the question of sexual orientation.

Because there were only two respondents in this sample who identified themselves as gay, future research should examine the sources of information and support for sexual health that gay college-going men and women could utilize and how a lack in the more traditional sources might affect their sexual encounters.
Finally, colleges and universities aim to provide their students with resources right on campus, and a part of this study examined students’ perceptions of the campus health services available to them, especially in terms of their utilization of such services for maintaining their sexual health. Most of the respondents in this study indicated two trends in terms of their campus health services: a lack of trust in the information and services provided and a fear of being judged by health care professionals if they went in with a question or concern related to their sexual behavior. This second point was strongly emphasized by the gay respondents in the study. James, a senior, indicated that he did not trust the services provided by the university health care system. When asked for the reason for such an opinion, he responded: “I do feel like half the time the only thing they have in there is pamphlets to help you out.” When pushed on this point, he said:

They kind of remind me of a very bad primary care physician. You go in there and they're like, "Eh, I don't know. We'll refer you to [the local hospital] so you can go see someone who actually knows what they're talking about." The only thing that I think the students really think that you can get out of health services is massages, which I have yet to get one. I don't know why I haven't done that [sarcastic].

Most of the respondents indicated that, if given the option, they would consult a doctor or medical professional outside the university health care system, and many did. Many respondents also said that they preferred to wait until they went home to see their family doctor. Some even had personal relationships with their family doctors, where they could call or text them with questions and avoid having to wait until they were home to see them. This reduced their need to rely on the university health care system. While a majority of the sample in this study was female, there were some initial differences in how college-going men and women discussed their
perceptions of sexual behavior responsibility and the roles they play in maintaining their sexual health.

**Gender Differences in Sexual Behavior Responsibility**

College-going men and women belong to a social environment that emphasizes sexual activity. This culture has recently been categorized as the “hook-up” culture, which encourages casual sexual experiences and a high frequency of sexual partners (Bogle 2008; Armstrong et al. 2012). This study looked at the differences in how college-going men and women understood their participation within this culture, specifically the roles they play in promoting safe sex in particular sexual encounters. While there are limitations, with regard to the sample size of this study and particularly the ratio of female to male participants, there were also some initial differences in how the men and women in this sample discussed their sexual behavior and health.

First, the female participants indicated that they spent more time talking to their friends about their sex lives and their most recent sexual encounters. The male participants indicated that conversations with their friends happened in very vague terms. Instead of divulging information to get emotional support or validation as college-going women do, college-going men discussed their sexual behavior as a way of belonging and fitting in with their peer group.

Additionally, the college-going women in this study indicated that they thought about their sexual behavior and their participation in safe sex practices more than the interviewed college-going men did. This could be the reason for a difference in the amount of discussion on such issues with their friends. While there were initial differences in the amount of time that men and women spent considering their roles in promoting sexual health, there were fewer differences when it came to actual behavior.
One of the gender specific roles that emerged from these interviews was the view of college-going women toward college-going men’s responsibility. In particular, many of the female respondents indicated that college-going men should be the ones to provide condoms during sexual encounters. While women (and men) believed that they themselves should be responsible for obtaining the contraceptive pill (especially in more serious relationships), many women expected that men should provide condoms if it was the contraceptive choice. Stacy, a single 21-year-old senior, discussed her casual approach to sexual encounters. When asked if she usually brought condoms with her, she strongly answered “no.” On being asked the reason, she responded strongly and explained:

I don't know. You're right. I don't know why I was so like ... I guess. I don't know. Where was I going to go get them? Just the Rite Aid and have someone see me buy them. Go walk into health services and be like, "Yeah, I'll take these condoms," in front of everybody. No, I was never going to ... I was like, "Dude, if a guy wants to have sex, he is going to have a condom." If he didn't have one, I didn't do it.

In Stacy’s opinion, the man should be responsible for practicing safe sex and play a very specific role. In Stacy’s view, if the man does not perform this role, then sex would be out of the question.

The belief that men should be responsible for providing condoms in sexual encounters could be a result of college women’s perceptions that they will be judged for purchasing or obtaining condoms for themselves. There is an historical tendency to believe that women who purchase condoms or provide condoms for themselves are sexually promiscuous and so the concern for college women is that they will be judged if they are seen purchasing condoms. This results in an emphasis on men as primarily responsible for providing this particular type of contraception.
An area that future research should focus on is how gay college students fit into this discussion. The two gay men interviewed in this study were more similar to the women interviewed in the study, as compared to the straight college-going men, in terms of the time they spent considering their sexual behavior and thinking about ways to promote their sexual health, especially preventing sexually transmitted infections. While these are the perspectives of only two individuals and it is impossible to draw any real inference from them, they do open up an important and potential direction for future research. Understanding college-going men and women’s perceptions of sexual behavior responsibility should include the experiences of both straight and gay individuals. There were also differences in how college students discussed their roles in sexual behavior responsibility, which were dependent on their description of their relationship status.

Relationship Status

Because college is a period of sexual experimentation and relative freedom, one of the biggest divides within the college student population was with regard to the relationship status of the students. There was an almost even split within this sample regarding their current relationship status. Eleven respondents reported being currently single, 12 reported being in a serious and monogamous relationship, one reported cohabitating with her partner, and one reported being engaged. The results suggest that there are some differences in how college-going men and women think about and practice safe sex, dependent on their relationship. These differences have to do with their concern for protecting themselves against sexually transmitted infections and unwanted pregnancies and the type of contraception that is used.
The casual nature of the college sexual environment has been described as the “hook-up culture.” This is a time of increased sexual freedom and experimentation, when college-going men and women engage in casual sexual encounters which are often fueled by alcohol and based on an idea that the encounter is solely for personal gratification and not for developing a more significant and emotional connection. A vast amount of research has been conducted on this culture and the participation of both college-going men and women within it (Kimmel 2008). Several respondents in this study discussed their participation within this culture. One finding that stood out was the effect of age on one’s participation in hooking up. Hooking up with strangers or acquaintances was much more common among freshman and sophomore participants (particularly women). Even the female participants, who were juniors or seniors at the time of the interview, indicated a shift in their sexual behavior, one that was categorized by more casual sexual encounters when they first began college. These participants discussed moving away from the hook-up culture as they got older, the reason being that they either settled into a more serious relationship or they decided that casual, one-time sexual encounters were not as gratifying anymore. The men in this study did not indicate a similar transition, although it is difficult to make any strong conclusions about potential gender differences here with only six men interviewed.

When discussing participation in casual sexual encounters, many participants expressed a perception that practicing safe sex was of utmost importance in such a situation. Most of them agreed that condoms were the best form of protection when it came to protecting themselves against sexually transmitted infections and unwanted pregnancies. Many of the female participants suggested that, when it came to “hooking up”, they had a hard line with regard to their safe sex practices; either a condom was used or the sexual intercourse would not happen. A
few female participants even went so far as to carry condoms with them to ensure that one would be available, to reduce the necessity of relying on college-going men to promote and practice safe sex. These women suggested that college-going men were not reliable when it came to providing contraception, so they took it as their own personal responsibility to make sure that condoms were available.

There seemed to be a significant breakdown in the perception of sexual behavior responsibility that the single participants discussed and the actual practice that played out in particular sexual encounters. This divide will be discussed later in this chapter, but generally while college students were able to clearly articulate their (and their partners) actions during sexual encounters in order to be sure of practicing safe sex, many times the implementation of those ideas fell apart when the time came to actually practice safe sex. This could be due to a variety of reasons, not the least of which is the influence of alcohol, which resulted in a breakdown in the conversation about safe sex and ultimately led to riskier sexual behavior.

Respondents who reported being currently in a serious monogamous relationship spent less time considering safe sex practices and discussing them with their partners. They reported being less concerned about contracting sexually transmitted infections, but being equally concerned as their single counterparts about facing an unplanned pregnancy. Very few indicated that they had had a serious conversation with their partner at the beginning of their relationship about previous sexual encounters, sexually transmitted infection status, or their perceptions of safe sex practices. Fiona, a 19-year-old freshman with a serious boyfriend whom she began dating that year, indicated that she did not have a serious discussion about contraception use with her boyfriend before having sex for the first time.
Fiona: We never really talked about like “you need to use a condom” like when it happens. Like, I figured it was just implied. And if he didn’t have one it wouldn’t have happened.
AM: Did he know that, do you think?
Fiona: Um, probably. [laughs] He probably figured like…I figured he should know. And I had one with me if he didn’t have one.

Many respondents also indicated that there had been a transition in their approach to safe sex throughout the course of their relationship. For some, this transition had been a result of practicing safe sex at the beginning of their relationship, which had begun as casual sexual encounters and then developed into a more meaningful relationship for many. Some respondents reported having risky sex with their partners, meaning that they would sometimes not use contraceptives at all, or use after-sex contraceptives (like the morning after pill), or sometimes they would use less effective techniques, like the pull-out method. The main concern for these participants was not about preventing sexually transmitted infections but a concern over preventing unwanted pregnancy. There is more variability in the ways that couples can prevent unwanted pregnancy, as compared to preventing sexually transmitted infections, and this variability opened up the possibility of creative safe sex practices for couples in serious relationships.

The other major finding regarding the participants in more serious relationships was a shift in the type of contraception used. This finding is consistent with previous research on contraception use within serious relationships (Fennell 2011). Many respondents reported using condoms at the beginning of their relationship, but a decision was made to switch to the hormonal birth control pill for women at some point in the relationship. This switch reflected the fact that many couples felt that they no longer had to protect themselves against sexually transmitted infections (although very few actually discussed their status) and instead only needed
to worry about preventing unwanted pregnancy. Stacy, a 21-year-old senior in a serious relationship, discussed the difference in using a condom versus hormonal birth control.

I think for me, and I know this is not true but it’s a personal truth that I need to break in my head, birth control is to prevent pregnancy and condoms are to prevents STDs. That’s just this weird dichotomy that I have when in reality, that’s not the best way to think about it. I guess it’s an either/or. If I’m not on birth control, you need to be using a condom but if I’m on birth control, do you need ... You know? I guess that’s the question that I ask, I mean, because it’s a more enjoyable experience without it.

Many of the female respondents in this study indicated that their male partner, who suggested that they enjoyed sex more without a condom and felt that the birth control pill was more convenient, initiated this shift in contraceptive use. This shift not only changes the type of contraception being used by couples, but also almost completely shifts the responsibility of preventing unplanned pregnancies from men (or at the very least, from being shared by both the partners in the relationship) to just women. This transition happened despite many of the women in this study indicating that men should be just as responsible as women for practicing safe sex and promoting sexual health.

While single respondents seemed generally clearer about their perceptions of sexual behavior responsibility for both themselves and their partners, respondents in serious relationships seemed less clear. Neither the single respondents nor those in serious relationships indicated that they spent any significant time discussing safe sex practices with their partners or their potential partners, and for many there was a significant breakdown between their perceptions and their actual practice. This breakdown appeared more significant for the respondents in serious relationships, potentially because they no longer felt concerned about preventing sexually transmitted infections. Another factor that seems to influence college
students’ perceptions of sexual behavior responsibility and safe sex practices are their personal histories and previous sexual experiences.

**Personal Histories**

Some of the respondents in this study indicated that they had experienced traumatic events previously in their lives, which influenced their approach toward their current sexual encounters and how they practice safe sex. These events included being the victim of sexual molestation as a child, being the victim of sexual assault in college, and dealing with unplanned pregnancy as a teenager. While traumatic, these events seemed to result in a particular type of resiliency for these respondents, encouraging them to take their sexual health seriously as they clearly identified how they practiced safe sex in sexual encounters. These respondents had the clearest idea of what they should be responsible for in sexual encounters, often taking on the majority of the responsibility and leaving very little for their partners. Stacy, a 21-year-old senior, described her experience with an unplanned pregnancy and subsequent abortion when she was in high school. She reflected on the effect this event had on her current sexual encounters:

> It [having an abortion] makes you hyper-vigilant. I’m now the person who has everything marked out on a calendar and I’m always on birth control, so it should match up perfectly. If I am not exclusively dating someone and I know we’re both sleeping around, it’s a condom every time. I think it’s the opposite of what I was saying before. It’s always taking control of the situation and knowing that you’re prepared and knowing that you have the resources...

Similarly, Ashley an 18-year-old first-year student, discussed an incident in middle school that had affected how she viewed protecting herself. Ashley had indicated that regardless of her relationship status, she is always on the hormonal birth control pill. I enquired into the reason for this and she answered:
It's just kind of an awkward thing, but when I was in 8th grade there was a boy that threatened to rape me. I don't think he fully understood what that meant, but at that age I didn't fully understand what that meant. When it came out, I don't really remember how it came out, but he was bullying and people found out. My parents found out, and that's when I really learned what it was. It's always been something that's kind of like something that scares me, and especially with things that have been going around on campus this year. I think that girls in any situation, even if you hope you're not going to get raped, but as an extra comfort level, be on some form of birth control. So even if that happens at least you won't have to carry his child for 9 months and figure out how to deal with that.

This event stood out in Ashley’s mind as a formative experience in shaping her view toward practicing safe sex and advocating for her own sexual health.

Respondents who had experienced these events were also the most likely to put their beliefs into practice and avoid experiencing the disconnect that many respondents felt between their perceptions of sexual behavior responsibility and practice.

While there is not enough evidence in this study to draw strong conclusions about the use of previous traumatic events in the establishment of resiliency in college students’ current sex lives, these initial relationships suggest the need for more research in this area. Additional research could help explain how the experience of these traumatic events shaped individuals’ experiences and their decision-making in the future and potentially uncover effects beyond those categorized as negative.

*The Human Papillomavirus*

The quantitative component of this study asked the respondents about their knowledge of the Human Papillomavirus (HPV) in order to ascertain if there were differences in the amount of awareness and knowledge that college-going men and women had about the virus. During the qualitative interviews, the respondents were also asked about the Human Papillomavirus, including what they knew about the virus, their experiences with the virus (if any), if they were
protected against the virus, and whether they discussed their HPV status or protection status with their partners. The purpose of including the Human Papillomavirus in these interviews was to try and position an awareness of the virus into a larger discussion on sexual behavior responsibility.

Most respondents in the qualitative component of this study had an awareness of the Human Papillomavirus. Many of the female respondents reported hearing about the virus from either their pediatricians or mothers, as part of a discussion about vaccinating against the virus. Very few respondents knew what HPV was or how it could harm the body. Many of the female respondents reported having received the HPV vaccine, with a few suggesting that they believed they had received the vaccine (or at least a part of it) but were not entirely sure.

None of the respondents, male or female, reported discussing the Human Papillomavirus as a part of their discussions about sexual health with their potential sexual partners. None reported having asked about whether their partner had ever contracted HPV or whether they had been vaccinated against the virus. Similarly, none of the participants reported that their partners had ever asked them about HPV. Some respondents like Taryn, an 18-year-old first-year student with a serious boyfriend, claimed that if a conversation about sexually transmitted infections came up with a new partner, there was nothing specific in the discussion. She said, “I think it's more of a broad, ‘Do you have anything?’ ‘No.’ ‘Okay.’ I've never heard of a kid that has it, at least from my peers.” The Human Papillomavirus did not seem to be on her radar of concerns and therefore, it did not factor into specific conversations about a partner’s sexual history.

Further, the male participants, indicated that they did not feel the Human Papillomavirus was a legitimate concern for them and none were aware that contracting the virus could have potential health consequences for men. Those men who had heard of HPV and had any knowledge about it, had learned about in the context of relationships that they had been in where
their girlfriends were either being vaccinated or had been discussing an irregular women’s health exam. Max, a senior, discussed his exposure to HPV knowledge through a previous partner. He said:

I never really knew anything about it. She [his ex-girlfriend] was concerned about it and she wanted to get vaccinated. I was like "Well, I might as well know what the hell she's getting vaccinated for." That's it. Then she was also getting screened for it, as well. Already having it before getting the vaccine.

Max did not acquire this knowledge for his own sexual health and in fact did not know that men could be vaccinated but he did at least have some awareness of the virus and the vaccine, whereas other men reported that they had never heard of it before.

Perceptions of Sexual Behavior Responsibility

One of the most significant findings from the qualitative interviews was the disconnect between respondents’ perceptions of sexual behavior responsibility and their actual behavior when it comes to practicing safe sex in specific sexual encounters. Many respondents had a very clear idea of what they should be doing (and what their partners should be doing) when it comes to practicing safe sex and promoting their sexual health. However, when the respondents began discussing the decisions that they took in particular sexual encounters, there appeared to be a disconnect between their actions and their expressed intent.

Natalie, a 20-year-old senior with a serious boyfriend, suggested that before anyone gets involved with a new partner, it is important to discuss one’s past sexual experiences and make their preferences clear in terms of contraceptive use. At the very least, she indicated that the first time you have sex with someone, you should use a condom. “Use some type of protection the first time, if you haven't been tested. Definitely. I think there's a quote, ‘Everybody's got a rando’ or something.” Natalie’s quote suggests that you can never be sure of a partner’s sexual history
and hence, it is important to take precautions when you first have sexual relations with a new person, especially in light of the college hook-up culture. However, when discussing her first encounter with her boyfriend, Natalie did not seem to follow her own advice. Neither did they have a conversation about sexual history and sexually transmitted infection status before having sex together for the first time, nor did they use a condom. When pressed on why she did not use a condom, Natalie responded “It was just a heat of the moment thing, and he didn't finish so … I should have.” In her response, Natalie highlighted a realization that what she perceives to be the appropriate behavior, in terms of sexual behavior responsibility, and what she actually practices do not completely agree with one another.

Respondents’ knowledge about safe sex practices and promoting their sexual health, therefore, seems to matter very little. They can be well-informed and have a clear sense of what should happen in sexual encounters, especially casual encounters, and they can have a clear understanding of both their and their partner’s role, but the implementation of this information is not as straightforward. Instead, decisions are based more on the type of encounter they are in, with differences in safe sex practices between those college students who are single and those who are in relationships. Decisions also seem to be influenced more by previous experiences than by knowledge, although this finding needs further examination.

At the end of the interview, respondents were asked to explicitly explain how they would describe their position toward sexual behavior responsibility, that is, what they expected themselves to be responsible for and what they expected their partner to be responsible for. Almost all the respondents indicated that responsibility for sexual behavior and for practicing safe sex should be shared between themselves and their partners, and that in order to be protected in the best way possible, they should always be using condoms. Again, these responses suggest
that it might not matter what college students know about sexual health and how they promote their sexual health. There might be other factors that are more influential in determining how they behave in sexual encounters.

Sample Limitations

The biggest limitation of the qualitative part of this study is the imbalance between male and female interview participants. The final qualitative sample consisted of 20 female participants and six male participants. Female participants were very easy to recruit and most were contacted through the original recruiting technique of soliciting from general education courses. Male participants, on the other hand, were much more difficult to obtain. Several different recruitment techniques were employed to try and connect with as many potential participants as possible.

The recruitment techniques included soliciting from a random sample of general education courses, reaching out to the sororities and fraternities on campus, and posting fliers in common university areas (like the student center and library) as well as in the public areas of the town where the university was located. I also tried to snowball sample by providing the interview participants with the researcher’s contact information to pass along to the individuals who might be interested in participating. It is unclear which of these recruitment techniques was more useful for recruiting the few male respondents who participated in this study. The slow acquisition of male participants over several months suggests that no one method was better than the other. There are additional actions that could have been taken to improve the male response rate and which should be considered in the future.
In the future, additional measures could be taken to ensure an equal balance between the male and female participants. First, with additional resources, potential participants could be offered a more appealing incentive for participating, one which might be more reflective of giving an hour of their time for the interview. This might help to encourage participation from individuals who otherwise did not consider participation in this study. Additionally, because of the sensitive nature of these interviews, it might be useful to have other interviewers available to create greater comfort for the participants. Having the option of a male interviewer might have made the potential male participants more comfortable and could have resulted in a better response rate from the college-going men.

The unequal response rate between female and male college students could be reflective of a larger divide between men and women, with regard to their understanding of sexual behavior responsibility and their participation in the sexual behavior responsibility paradigm. Perhaps, because men have been left out of the discussion about sex and promotion of sexual health for so long, they do not see how a study about sexual health practices and behaviors concern them or how they would be a valid candidate for participation in such a study.

**Honesty Survey**

Any time research is conducted on a sensitive topic like sexual behavior, there is some concern as to the likelihood that the respondents are being honest with their answers, especially when asking them personal questions about specific sexual encounters. There is also some concern that in a one-on-one interview setting, the respondent might somehow be influenced by the interviewer, or feel uncomfortable and therefore be unwilling to be as open as possible. No data collection technique is perfect, but to address some of the limitations of the data collection
technique used for the qualitative interviews, each respondent was asked to complete a brief questionnaire at the end of the interview regarding their feelings about being a participant in this study. The purpose of this questionnaire was to address any significant issues that may have come up during the data collection phase.

Results of the questionnaire indicated that, on an average, the participants felt comfortable with the interviewer and felt like they could be open and honest when responding to the researcher’s questions. They also felt as though they could object to responding to any question that they felt was too personal or invasive, and that they could end the interview at any time. There was no significant difference in the response to the questionnaire for the male or female participants, which suggests that while it might have made a difference to have a male interviewer for male participant recruitment purposes, it did not seem to make a difference in terms of the male participants’ responses to the questions asked.

Conclusion

The qualitative component of this study was largely meant to be exploratory and examine an area of research, among a specific population, that had not been addressed in much detail before. Much of the research on sexual behavior responsibility has been based on quantitative studies that have surveyed men and women, most of whom are older and in relationships (Grady et al. 1996; Frost et al. 2007). Much of what can be taken from the qualitative results is that there are several important areas which the future studies should focus on and try to explore.

First, more research needs to be conducted on college students in order to completely understand their position toward sexual behavior responsibility, especially the relationship between their knowledge of sexual health and their promotion sexual health during sexual
encounters. The results of this study suggest that there is a disconnect between what college students know about sex and what they do during their sexual encounters. This disconnect points to the importance of some other factors when determining whether college students choose to practice safe sex in their sexual encounters. Among these factors are the issues like current relationship status, which may influence the conditions under which a sexual encounter takes place (e.g. the use of alcohol), as well as previous experiences that influence an individual’s opinion on safe sex.

Additionally, the results of this study indicate that there are differences in the sexual experiences of straight and gay students, and that gay students have different sources of support for their sexual health. More research is required to truly understand the sexual behavior decision-making process among gay students, in an attempt to serve this specific population better.

The results of this qualitative component contributes both to the field of sociology as well as makes practical contributions to the area of public health. For the field of sociology, these results contribute to a greater understanding of the sexual behavior responsibility paradigm and how college-going men and women participate in the promotion and maintenance of their sexual health. Very few previous studies have taken a qualitative look at how college students make decisions about their sexual health and the factors that influence behaviors within sexual encounters. This study suggests that the decision-making process by college students may not be entirely dependent on their knowledge about sexual health and their behavior may not be entirely dependent on their beliefs about or position toward safe sex practices.

Additionally, the qualitative interviews begin to examine how gender influences sexual behavior responsibility decision making at multiple levels, by asking college-going men and
women about their individual perceptions of responsibility, the information they receive from health institutions about safe-sex practices, and their interaction with partners in specific sexual encounters. At each of these levels college-going men and women are left with a set of expectations that allows college-going women to participate in their own sexual behavior responsibility in specific ways and college-going men to participate in others, particularly in the types of contraceptives that each can utilize. This application of Risman’s (2004) gender structure theory illuminates the influence of gender for this particular population in regards to sexual health.

The results of the qualitative study could also have potential practical implications in the area of public health. These findings could be used by individuals and organizations tasked with working with this specific population and promoting health behavior and decision-making among college students. More specifically, the information on college students’ opinions about university health services could be used to help university health centers serve their students better and promote healthy sexual behavior in ways that college students can relate to in a more successful way.

It is important to note that there are limitations to the qualitative piece of this study. As mentioned earlier, the biggest limitation is the unequal response rate between the female and male participants. The results of this study would be stronger if more college-going men had participated in the qualitative interviews. Future research should employ strategies to specifically target this sub-population and better understand how sexual behavior responsibility decision-making works for college-going men. These findings could provide ways to encourage more participation from college-going men in the discourse on sexual behavior responsibility.
CHAPTER SIX

CONCLUSION

In this dissertation, I have examined the issues related to sexual behavior responsibility decision making among college men and women through the use of both quantitative and qualitative methodologies. Utilizing a quantitative survey, I was able to examine the gender differences that exist between college-going men and women with regard to their awareness and knowledge about a particular sexual health issue, namely, the Human Papillomavirus. I was also able to conduct qualitative in-depth interviews in order to expand on the knowledge acquisition and the sexual behavior decision-making process for college-going men and women, while at the same time allowing college students to identify issues that are of particular importance to them.

While previous research finds significant differences in how men and women view their sexual health and perceive responsibility for their sexual behavior (Fennel 2010; Grady et al. 2010; Grady et al. 1996; Merkh et al. 2009), little research had been done to examine how the decision-making process for safe sex works among college-going men and women. This is a particularly vulnerable population with regard to unplanned pregnancy and sexually transmitted infections in light of a growth in the hook-up culture, as outlined by several researchers. Because of the culture, it seems important to examine college students’ understanding of their sexual health and how their awareness and knowledge about sex-related issues influence their safe sex practices.
One of the specific ways I examined potential gender differences in sexual behavior responsibility was to study college-going men’s and women’s awareness about the Human Papillomavirus and their use of the HPV vaccine. The Human Papillomavirus has become an increasing concern over the last decade, as the most common sexually transmitted disease, and the cause of several health complications, most notably the majority of cases of cervical cancer in the United States. The quantitative component of this study indicated that college women had greater awareness of the Human Papillomavirus and more knowledge about the risk factors for contracting the virus and the health consequences associated with it compared to college-going men. College-going women were also more likely to have received the HPV vaccine than college-going men, an indication that they had taken sexual health steps to prevent this one specific sexual health-related issue.

The qualitative component of the study aimed to take a more in-depth look at the factors that influence sexual behavior responsibility decision making. Using a semi-structured, in-depth interview approach, I was able to allow participants to identify the issues related to their sexual health that were of importance to them, from sources of the sexual health information to the utilization of resources for sexual health concerns and care. The findings from this part of the study indicated that college students utilize many different sources for information on sexual health, including more formal sex education classes before getting to college and informal sources like parents, friends, and the internet. Women were more like to rely on these informal sources, especially mothers and other female friends, compared to men.
Benefits of the Study

The multi-methods approach in this dissertation allowed for a unique examination of the sexual behavior responsibility gender differences that exist among college-going men and women. First, the quantitative survey instrument established some initial gender differences in college-going men’s and women’s awareness and knowledge of the Human Papillomavirus and differences in rates of HPV vaccine uptake. In addition to these surveys, I was able to utilize one-on-one interviews with college-going men and women to further examine the factors that influence whether or not college-going men and women promote their sexual health and the health of their partners in various sexual encounters. It would have been difficult to establish the initial gender differences in awareness and knowledge without the quantitative survey component and also difficult to examine these differences in any real detail with the qualitative interviews.

The semi-structured, in-depth interviews in the qualitative component of the study provided valuable insight into how college students view and understand their role in sexual health promotion and the practice of safe sex. More importantly, they allowed for an examination and discussion of the divide between college-going men’s and women’s perception of sexual behavior responsibility and their actual behavior in particular sexual encounters. It is important to note that how college students talk about their role for sexual behavior responsibility does not always indicate how they will behave in particular sexual encounters. More specifically, while college-going men and women tend to be clear about how they should practice safe sex, there tends to be a breakdown when it comes to implementing these ideas. The action for safe sex and using contraceptives seems to be influenced by a variety of factors, most notably the relationship status of those involved in the sexual encounter and the type of encounter and sexual act or acts.
involved. It is important to understand this breakdown between perception and action to encourage safe sex among this population further. While previous studies focused mainly on how men and women discussed their role for sexual behavior responsibility, furthering the conversation to include specific examples of behavior in sexual encounters adds an important component in our understanding of this process.

*Limitations of the Study*

One of the major limitations of this dissertation research is the lack of male participants, particularly in the qualitative interviews. In order to be confident in the gender differences discussed in the findings, it would have been preferable to have a more balanced number of men and women participating. While the lack of male participants is definitely a limitation, it may indicate a more significant gender divide in how men and women view and understand their participation in the maintenance of sexual health. College-going men may have been less likely to volunteer for participation in a study which looked at sexual behavior responsibility because they do not view it as an issue that affects them or as a topic of conversation to which they can contribute. Regardless, it would be beneficial in the future to get more college-going men involved in studies of this kind, as their lack of voice results in a lack of full understanding of the role they play in promoting safe sex among this population.

Another potential limitation of this study is that neither the quantitative sample nor the qualitative sample allow us to generalize to all American college students. Potentially, there is something unique about the students at this particular mid-size state university, and something even more particular about the students who volunteered for the survey and the in-depth interviews. Students who are willing to discuss their views on sexual behavior responsibility and
their participation in particular sexual encounters are potentially significantly different from those who are unwilling to participate. So, caution must be taken when discussing these findings. Future research should aim to replicate this methodology at different types of colleges and universities and should somehow try to encourage participation from students who might not initially volunteer for such a study.

Additionally, while the quantitative survey indicates that there are gender differences in college men’s and women’s awareness and knowledge of the Human Papillomavirus, this data cannot address how or why gender influences knowledge and what mechanisms have resulted in college women being more informed about HPV. Future research should try to tease out what factors influence how much men and women know about sexual health issues and whether or not changes have occurred in the sexual behavior responsibility paradigm.

Implications of Findings

This dissertation makes important contributions both to the field of sociology but also practically to the area of public health. With regard to sociology, the area of sexual behavior, and the sociology of gender more specifically, this study adds an understanding of how gender works in the context of safe sex practices and sexual behavior decision making. While it does not go so far as to explain why there are gender differences in how college-going men and women view their role for sexual behavior responsibility, it does identify that gender differences exist, both in a broad sense and also in particular in regards to the Human Papillomavirus. This extends the current research on gender differences in the sexual behavior responsibility paradigm beyond those studies that looked at older men and women primarily in committed relationships.
Additionally, the findings from this dissertation could have important public health implications, particularly for those who work to promote safe sex and sexual behavior responsibility among college students. College and university health services could potentially use this information in order to better serve college-going men and women in regards to their acquisition of sexual health knowledge and their utilization of services for sexual health concerns. This information might be particularly useful for the promotion of the Human Papillomavirus vaccine and to encourage college-going men and women to become more aware of their sexual health and the promotion of their sexual health, potentially resulting in an increase in HPV vaccine uptake.

The qualitative finding that college-going men and women do not, on average, find university health services to be useful, especially when it comes to their sexual and reproductive health, is a particularly interesting finding and one that deserves more attention in the future. From a public health standpoint, university health services could be a particularly important institution for disseminating information and creating dialogue for both college-going men and women about sexually transmitted infections and safe sex practices. Developing a further understanding of why students are not utilizing these services could inform health service centers about how best to change their approach. The alternative is that students will turn to less formal and reliable sources of information and support which could have detrimental effects on their sexual health.

Areas for Future Research

Future research should try to further examine the gender differences in the results from this study, especially from the qualitative interviews. There seems to be a gender difference in
awareness of and concern for sexual health, but the limited number of male participants reduces the certainty of these findings. With more resources, future studies should try to expand on these differences and why it is that college-going men and women, in particular, have different views of sexual health and safe sex practices. Bringing college-going men into the conversation about sexual health is a difficult, but necessary, next step.

One area of particular interest that comes out of the findings of the qualitative interviews is the connection between previous life events and perceptions of sexual behavior responsibility. In particular, students who indicated that they had experienced a previous traumatic life event related to their sexual health seemed to have clearer ideas about what they must do to practice safe sex and what their individual roles should be. These traumatic life events included obtaining an abortion for an unplanned pregnancy, being the victim of childhood sexual molestation, or experiencing a sexual assault while in college. These participants also indicated that they were more likely to stick to their plan for safe sex while in a sexual encounter, compared to those participants who have did not report a traumatic life event.

While this link between traumatic life events and sexual behavior responsibility is clear, the limited sample size questions the reliability of the finding. Therefore, future research should address this relationship and further examine if such a relationship exists and how past traumatic experiences may result in a resiliency that leaves these individuals with a clear understanding of their expectations for future sexual behavior. More specifically, I am interested in examining how these experiences of trauma and stress work to become important events in some way for future sexual health and whether or not participants identify these events as essential contributors to their practice of safe sex. Future research could also try and identify which events, if any, are the most influential in an individual’s practice of safe sex further down the road and how so. For
example, are those participants who have obtained an abortion more likely to insist on contraception in the future? Or are those who have been the victims of assault less likely to have sexual encounters with individuals they do not know well? In order to address these questions, a larger sample of participants who have experienced these types of events would be needed.

Additionally, a minor subset of the sample from the qualitative interviews were gay college-going men. While there were only two gay college-going men interviewed for this study, their contributions made a significant impact in terms of directions for future research. More specifically, these findings suggest that men who identify as gay do not have the same resources available to them in terms of support and information about sexual health and are therefore left to seek out less reliable forms of support, including on-line communities and forums. Future research should examine this population in more detail to understand the issues they face when trying to make informed decisions about their sexual health and how the college or university health services community could better serve and support them. These participants also indicated that they felt uncomfortable utilizing the resources available on their college campus. Expanding on this preliminary finding in future studies could help to inform college health centers about the best ways to reach the gay student population and better serve their sexual health needs, reducing their need or desire to find information elsewhere.

Further, the gay male students interviewed in this study responded more similarly to the straight female students than straight male students with regard to their concern about sexually transmitted infections, somewhat obscuring the gender analysis. While the straight male participants reported less of a concern over sexually transmitted infections compared to their straight female counterparts, the two gay male participants expressed a strong concern over contracting a sexually transmitted infection, one even going so far as to say that he was
considering going for an HIV test. Future research should aim to establish if this pattern continues to exist in a larger sample, or if the two gay participants in this study were somehow an exception. Additionally, future research should examine whether or not lesbian students have a similar experience in their attempt to find adequate sexual health education and support.

Finally, while this research has focused on college-going men and women specifically and framed their experience in the context of the hook-up culture that has come to classify the college experience, future research should examine if similar differences exist among young men and women who are not enrolled in college. It might be the case that the emphasis on casual sex found across college campuses has an influence on the types of sexual encounters and the specific safe-sex behavior that college-going men and women participate in compared to their non-college-going counterparts.

This study has provided an initial in-depth examination of the process of sexual behavior responsibility decision making among college-going men and women. Future research should continue this work to better understand the factors that influence whether college-going men and women choose to protect themselves in sexual encounters or not and how these factors vary by gender. Because this population is at risk in terms of the consequences of sexual activity, a further understanding of how best to access and serve this population could significantly reduce the incidence of unplanned pregnancy and sexually transmitted infections in the future and perhaps increase gender equity in the promotion of safe sex practices.
REFERENCES


Risman, Barbara J. 2009. “From Doing to Undoing: Gender as We Know It.” *Gender and Society* 23(1): 81-84.


Appendix A.

Recruitment Flyer

VOLUNTEERS NEEDED
FOR RESEARCH STUDY!

Looking for undergraduate men and women to participate in an interview about sexual behavior and decision making

To be eligible for the study you must be:
- At least 18 years of age
- Currently enrolled as an undergraduate student

Compensation ($10.00 prepaid gift card) for your time will be provided.

FOR FURTHER DETAILS PLEASE CONTACT:

amx72@wildcats.unh.edu
Appendix B.

Recruitment Letter- Quantitative Survey

You have been chosen to participate in an online survey which investigates college students’ attitudes and behavior about certain sexual activities. Your participation in this study is completely volunteering and is in no way connected to your grade or credit received for [course name]. Your course instructor will not know if you have participated in this study or not nor will he or she have access to any of your responses. Please contact the principal investigator if you have any questions or concerns at amx72@wildcats.unh.edu.

Sincerely,

Angela Mitiguy
Principal Investigator
Ph.D. Candidate
Department of Sociology
Recruitment Letter - Qualitative Interview

Dear Professor ________________,

My name is Angela Mitiguy and I am a doctoral candidate in the Sociology Department. I am currently working on my dissertation and was hoping I could ask your assistance in collecting some data. My project is investigating male and female college students’ decision making process and beliefs surrounding sexual behavior and responsibility. I am hoping to interview men and women here at UNH in regards to their beliefs about current sexual health issues and sexual behavior decision making.

I would like to sample students who are enrolled in courses that could fulfill general education requirements for the college in order to get the broadest sample possible. In order to do this I am contacting introductory course instructors. I hope to begin collecting my data at the beginning of April. In order to do this I am hoping that you will be willing to provide your students with the attached recruitment flyer either via e-mail or your course Blackboard site. Alternatively, if you have time and would be willing to let me come speak to your class about my study, I would be more than happy to.

If you would be willing to help me in this endeavor please e-mail me to let me know. Thank you so much for taking the time to read and consider this. Good luck with the rest of your semester.

Sincerely,
Angela Mitiguy
Ph.D. Candidate
Department of Sociology
Horton Social Science Center
Appendix C.

Informed Consent Form – Quantitative Survey

Date:

Title of Study: Understanding College Men’s and Women’s Perceptions of Sexual Behavior Responsibility through the Lens of the Human Papillomavirus
Principal Investigator: Angela Mitiguy, University of New Hampshire

Dear student:

I am a doctoral candidate in the department of Sociology at the University of New Hampshire and I am conducting a research project to find out about male and female attitudes and beliefs about sexual behavior decision making. I am writing to invite you to participate in this project. I plan to work with approximately 40 participants in this study. You must be at least 18 years old to participate in this study.

If you agree to participate in this study, you will be asked to participate in an interview. The interview will take approximately 60 minutes to complete. The interview will be audio-recorded and will take place in a private, reserved room in the university library. The audio recordings will be used so that I can transcribe the interviews afterwards and to obtain specific information from our discussion. During this interview you will be asked a series of questions. These questions are designed to allow you to share your experiences and thoughts surrounding your decisions about sexual health and behavior. You will be compensated for your time with a $10.00 prepaid gift card.

The potential risks of participating in this study are the possibility of discomfort, anxiety, or stress which results from the sensitive and personal nature of some of the questions. Although you are not anticipated to receive any direct benefits from participating in this study, the benefits of the knowledge gained are expected to be a greater understanding of the decision making process and attitudes about sexual behavior and health.

Participation in this study is strictly voluntary. If you refuse to participate, you will not experience any penalty or negative consequences. If you agree to participate, you may refuse to answer any question and/or if you change your mind, you may withdraw at any time during the study without penalty or negative consequences.

I seek to maintain the confidentiality of all data and records associated with your participation in this research. There are, however, rare instances when I am required to share personally-identifiable information (e.g., according to policy, contract, regulation). For example, in response to a complaint about the research, officials at the University of New Hampshire, designees of the sponsor(s), and/or regulatory and oversight government agencies may access research data. I am
also required by law to report certain information to government and/or law enforcement officials (e.g., child abuse, threatened violence against self or others, communicable diseases). I will keep data on a password protected computer; only I and my dissertation advisor, Dr. Sharyn Potter, will have access to the data. Audio recordings will only be used to transcribe interviews. Once the interview is transcribed, the audio tapes and interview transcripts will be kept in a locked cabinet that only the principal investigator will have access to. Tapes will be stored for two years past the end of the study and will then be erased. I will mostly report the data in aggregate form. When direct quotes from the interview are required, pseudonyms will be used to protect the participant’s identity. The results may be used in my dissertation as well as future presentations and publications.

If you have any questions about this research project or would like more information before, during, or after the study, you may contact Angela Mitiguy at amx72@wildcat.unh.edu. If you have questions about your rights as a research subject, you may contact Dr. Julie Simpson in UNH Research Integrity Services at 603-862-2003 or Julie.simpson@unh.edu to discuss them.

I have enclosed two copies of this letter. Please sign one indicating your choice and return in the enclosed envelope. The other copy is for your records. Thank you for your consideration.

Sincerely,

Angela M. Mitiguy
Ph.D. Candidate, Department of Sociology

Yes, I, ___________________________consent/agree to participate in this research project.

No, I, ___________________________do not consent/agree to participate in this research project.

___________________________  __________________________
Signature  Date
Informed Consent Form - Qualitative Interview

Date:

Title of Study: Understanding College Men’s and Women’s Perceptions of Sexual Behavior Responsibility through the Lens of the Human Papillomavirus
Principal Investigator: Angela Mitiguy, University of New Hampshire

Dear student:

I am a doctoral candidate in the department of Sociology at the University of New Hampshire and I am conducting a research project to find out about male and female attitudes and beliefs about sexual behavior decision making. I am writing to invite you to participate in this project. I plan to work with approximately 40 participants in this study. You must be at least 18 years old to participate in this study.

If you agree to participate in this study, you will be asked to participate in an interview. The interview will take approximately 60 minutes to complete. The interview will be audio-recorded and will take place in a private, reserved room in the university library. The audio recordings will be used so that I can transcribe the interviews afterwards and to obtain specific information from our discussion. During this interview you will be asked a series of questions. These questions are designed to allow you to share your experiences and thoughts surrounding your decisions about sexual health and behavior. You will be compensated for your time with a $10.00 prepaid gift card.

The potential risks of participating in this study are the possibility of discomfort, anxiety, or stress which results from the sensitive and personal nature of some of the questions. Although you are not anticipated to receive any direct benefits from participating in this study, the benefits of the knowledge gained are expected to be a greater understanding of the decision making process and attitudes about sexual behavior and health.

Participation in this study is strictly voluntary. If you refuse to participate, you will not experience any penalty or negative consequences. If you agree to participate, you may refuse to answer any question and/or if you change your mind, you may withdraw at any time during the study without penalty or negative consequences.

I seek to maintain the confidentiality of all data and records associated with your participation in this research. There are, however, rare instances when I am required to share personally-identifiable information (e.g., according to policy, contract, regulation). For example, in response to a complaint about the research, officials at the University of New Hampshire, designees of the sponsor(s), and/or regulatory and oversight government agencies may access research data. I am also required by law to report certain information to government and/or law enforcement officials (e.g., child abuse, threatened violence against self or others, communicable diseases). I will keep data on a password protected computer; only I and my dissertation advisor, Dr. Sharyn Potter, will have access to the data. Audio recordings will only be used to transcribe interviews.
Once the interview is transcribed, the audio tapes and interview transcripts will be kept in a locked cabinet that only the principal investigator will have access to. Tapes will be stored for two years past the end of the study and will then be erased. I will mostly report the data in aggregate form. When direct quotes from the interview are required, pseudonyms will be used to protect the participant’s identity. The results may be used in my dissertation as well as future presentations and publications.

If you have any questions about this research project or would like more information before, during, or after the study, you may contact Angela Mitiguy at amx72@wildcat.unh.edu. If you have questions about your rights as a research subject, you may contact Dr. Julie Simpson in UNH Research Integrity Services at 603-862-2003 or Julie.simpson@unh.edu to discuss them.

I have enclosed two copies of this letter. Please sign one indicating your choice and return in the enclosed envelope. The other copy is for your records. Thank you for your consideration.

Sincerely,

Angela M. Mitiguy
Ph.D. Candidate, Department of Sociology

Yes, I, __________________________consent/agree to participate in this research project.

No, I, __________________________do not consent/agree to participate in this research project.

___________________________
Signature

___________________________
Date
Appendix D.

Resources for Participants

I recognize that sexually transmitted infections and sexual behavior is a sensitive topic. After participating in this study, you might want to talk to someone for support and to gain more information. This is a list of organizations that are here to help you for any reason. Again, you may also choose to contact the researcher as well.

On Campus:

UNH Counseling Center………………………………………………………….603-862-2090
UNH Health Services………………………………………………………………603-862-1530

Off Campus:

Planned Parenthood (Portsmouth Health Center)………………………………..603-431-6803
Wentworth Douglass Hospital………………………………………………...603-742-5252

Researcher:

Angela Mitiguy……………………………………………………………………amx72@wildcats.unh.edu
Resources for Survivors

I know that sexual and relationship violence and stalking is a difficult topic and that our conversation might have elicited upsetting or stressful feelings from past events. After participating in this interview you might want to talk to someone for support, for more information, or to find out how you can help in dealing with this issue. This is a list of organizations that are here to help you for any reason. Again, you may also choose to contact the researcher as well.

On Campus:

Sexual Harassment and Rape Prevention Programs (SHARPP)………………..603-862-3494
On-campus Police…………………………………………………………………911 or 603-862-1427
UNH Counseling Center…………………………………………………………603-862-2090
UNH Health Services………………………………………………………………603-862-1530
UNH Affirmative Action Office…………………………………………………603-862-2930
Judicial Programs Office……………………………………………………………603-862-3377

Off Campus:

Sexual Assault Support Services (SASS) Portsmouth……………………………603-436-4107
A Safe Place- Domestic Violence Portsmouth…………………………………603-436-7924
Off-campus POLICE………………………………………………………………911
Strafford Guidance Center…………………………………………………………603-749-3244
Wentworth Douglass Hospital……………………………………………………603-742-5252
Rape Abuse Incest National Network (RAINN) .............................1-800-656-HOPE (4673)
National Domestic Violence Hotline.....................................................1-800-799-SAFE (7233)
Stalking Resource Center…………………………………………………1-800-FYI-CALL (394-2255)

Researcher:

Angela Mitiguy………………………………………………………………amx72@wildcats.unh.edu
Resources about Offenders

I know that the perpetration of sexual and relationship violence and stalking is a difficult topic. After participating in this interview you might want to talk to someone for support, for more information, or to find out how you can help in stopping sexual and relationship violence and stalking. This is a list of organizations that are here to help you for any reason. Again, you may also choose to contact the researcher as well.

On Campus:

On-campus Police.................................................................911 or 603-862-1427
UNH Counseling Center.........................................................603-862-2090
Judicial Programs Office.........................................................603-862-3377

Off Campus:

Sex Abuse Treatment Alliance (SATA).................................517-482-2085
Ending the Violence..............................................................www.endingtheviolence.us
Emerge....................................................................................www.emergedv.com
National Organization for Men Against Sexism....................www.nomas.org
Men’s Work-Eliminating Violence Against Women..............www.mensworkinc.com
A Call to Men.................................................................www.acalltomen.org
Men Can Stop Rape.............................................................www.mencanstoprape.org
Men’s Resources International...........................................www.mensresourcesinternational.org
Futures Without Violence....................................................www.futureswithoutviolence.org

Researcher:

Angela Mitiguy...............................................................amx72@wildcats.unh.edu
Appendix E.

Quantitative Survey Questions

1. What is your age?
   Age ________________

2. What is your gender?
   1. Male
   2. Female
   3. Transgender (male to female)
   4. Transgender (female to male)

3. What is your class standing?
   1. Freshman (first year)
   2. Sophomore (second year)
   3. Junior (third year)
   4. Senior (fourth year)
   5. Fifth year or beyond (undergraduate)

4. Including the current semester, how many semesters have you been enrolled as a student at UNH? (Whole numbers ONLY please)
   ___________________________________

5. What college is your major in?
   1. College of Liberal Arts
   2. College of Engineering and Physical Sciences
   3. School of Health and Human Services
   4. College of Life Science and Agriculture
   5. Peter T. Paul College of Business and Economics
   6. Thompson School of Applied Science

6. Where do you presently live?
   1. UNH Residence Hall – IF YES SKIP TO QUESTION 19
   2. UNH Apartment
   3. Off-Campus - Apartment
   4. Off-Campus - Fraternity or Sorority House
   5. Off-Campus - Family's Home
   6. Other ___________________________________

   Knowledge about the Human Papillomavirus (HPV): (Adapted from the UNC Men’s Health Survey, Reiter et al. 2010)

7. Have you heard of Human Papillomavirus or HPV before today?
   ___________________________________
1. yes
2. no
3. I don’t know

8. Do you think you get HPV from having sex?
   1. yes
   2. no
   3. I don’t know

9. Do you think HPV can cause genital herpes?
   1. yes
   2. no
   3. I don’t know

10. Do you think HPV infection is rare?
    1. yes
    2. no
    3. I don’t know

11. Do you think HPV can cause genital warts?
    1. yes
    2. no
    3. I don’t know

12. Do you think HPV can cause oral cancer?
    1. yes
    2. no
    3. I don’t know

13. Do you think HPV can cause anal cancer?
    1. yes
    2. no
    3. I don’t know

14. Do you think HPV can cause penile cancer (cancer of the penis)?
    1. yes
    2. no
    3. I don’t know

15. Do you think only people who have sex with lots of other people get HPV?
    1. yes
    2. no
    3. I don’t know

**Information Sources:** (Adapted from the UNC Men’s Health Survey, Reiter et al. 2010)
16. Do you remember taking a sexual education in high school?
   1. Yes
   2. No

17. In your high school sexual education class, who were you taught should initiate conversations and make decisions about contraceptive use and preventing sexually transmitted infections?
   1. I was taught that I should make decisions about contraceptive use and preventing sexually transmitted infections.
   2. I was taught that my partner should make decisions about contraceptive use and preventing sexually transmitted infections.
   3. I was taught both myself and my partner should make decisions together.
   4. I was not taught about this.

18. Have you ever heard about the HPV vaccine from any of these sources? Check all that apply.
   1. Doctor or health care provider
   2. Friend or family member
   3. Brochure or poster
   4. Commercial or ad from a drug company
   5. none of the above

19. Not think about what you have heard about the HPV vaccine in news stories or on websites. This does not include advertisements. Have you ever heard about the HPV vaccine from any of these sources? Check all that apply.
   1. Television
   2. Radio
   3. Internet
   4. Newspaper
   5. none of the above

20. Is your opinion of the HPV vaccine…
   1. Mostly positive
   2. Somewhat positive
   3. Neutral
   4. Somewhat negative
   5. Mostly negative

21. Before today, have you thought about getting the HPV vaccine?
   1. yes
   2. no
   3. I don’t know

22. Do you think the HPV vaccine is only for women?
   1. yes
   2. no
   3. I don’t know
23. Do you think doctors are allowed to give the HPV vaccine to men?
   1. yes
   2. no
   3. I don’t know

24. Have you ever talked to a doctor or other health care provider about getting the HPV vaccine for yourself?
   1. yes
   2. no

26. Have you, a family member, or someone else you know gotten the HPV vaccine?
   1. yes
   2. no

27. Who got the HPV vaccine? Check all that apply.
   1. You
   2. Your wife, girlfriend, or female partner
   3. Your husband, boyfriend, or male partner
   4. Other family member, please specify: ________
   5. A female friend
   6. A male friend
   7. Someone else you know, please specify: ________

Vaccination: (Adapted from the UNC Men’s Health Survey, Reiter et al. 2010)

28. The HPV vaccine requires 3 doses over 6 months. How many shot of the HPV vaccine have you had?
   1. One
   2. Two
   3. Three

29. Have you ever tried to get the HPV vaccine for yourself but were unsuccessful?
   1. yes
   2. no

30. What is the main reason that you were unsuccessful in getting the HPV vaccine for yourself?
   1. Doctor or health care provider did not stock the vaccine
   2. Doctor or health care provider would not give the vaccine to males
   3. You could not afford the vaccine
   4. Other, please specify: ________
Appendix F.

Qualitative Interview Protocol

Date__________________ Participant ID__________________
Pseudonym__________________

INTRODUCTION

☐ Introduce yourself.
☐ Discuss the purpose of the study.
☐ Provide informed consent.
☐ Provide structure of the interview (audio recording, taking notes, and use of pseudonym).
☐ Ask if they have any questions.
☐ Test audio recording equipment.
☐ SMILE- make the participant feel comfortable.

QUESTIONS ABOUT SEXUAL BEHAVIOR AND HEALTH KNOWLEDGE

1. Where does most of your information about sexuality and sexual health come from?

2. If you have questions about sexual health or sexuality, where or who do you go to?

3. If you are experiencing problems or concerns about sexual health or sexuality, where or who do you go to?

QUESTIONS ABOUT SEXUAL ENCOUNTERS

4. How would you describe your current relationship status?
a. Are you currently sexually active?

5. Think back to your most recent sexual encounter since you turned 18 years old.
   a. How long ago was this encounter?

   b. Can you explain what happened leading up to this encounter?

   c. What happened during this sexual encounter?

   d. How were the decisions regarding sexual health and safety made during the encounter?

QUESTIONS ABOUT HPV AND THE HPV VACCINE

6. Can you tell me what you know about the Human Papillomavirus or HPV?

7. Where does your information about HPV come from?
8. Have you ever been diagnosed and/or treated for an HPV infection?

9. Are you vaccinated against HPV?
   a. Do you plan on being vaccinated against HPV?
   b. Why or why not?

10. Do you ever talk to your friends or romantic partners about HPV and the risk for HPV?

CONCLUDING QUESTIONS AND STATEMENTS

Is there anything else you would like to add or share about your sexual behavior and sexual health beliefs that you feel is important for me to know?
Concluding Statement
☐ Thank them for their participation.
☐ Ask if they would like to see a copy of the results.
☐ Give them the resource sheet.
☐ Record any observations, feelings, thoughts, and/or reactions about the interview.
Appendix G.

Honesty Survey

This questionnaire asks for your opinions about what it was like for you to participate in this study. Your responses will be used to help us understand more about what it is like to be a research participant.

1. Sometimes participants find it difficult to be completely honest when answering the types of questions you were asked today. Did you find it difficult to be honest when answering questions? Please circle one:
   a. Yes
   b. No

   If yes, please explain:

2. Did you withhold any information today during the interview? Please circle one:
   a. Yes
   b. No

   If yes, please explain:

3. Would you have felt more comfortable being interviewed by a male researcher? Please circle one:
   a. Yes
   b. No

   If yes, please explain:

4. Is there anything else that you think would be helpful for us to know about your experience participating in this interview? Please circle one:
   a. Yes
   b. No

   If yes, please explain:
Appendix H.

IRB Approval

University of New Hampshire
Research Integrity Services, Service Building
51 College Road, Durham, NH 03824-3585
Fax: 603-862-3564

17-Mar-2014

Mitiguy, Angela
Sociology, Horton SSC
502 Piscassic Street
Newmarket, NH 03857

IRB #: 5957
Study: Understanding College Men and Women’s Perceptions of Sexual Behavior
Responsibility through the Lens of the Human Papillomavirus
Approval Date: 17-Mar-2014

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has
reviewed and approved the protocol for your study as Expedited as described in Title 45,

Approval is granted to conduct your study as described in your protocol for one
year from the approval date above. At the end of the approval period, you will be
asked to submit a report with regard to the involvement of human subjects in this study. If
your study is still active, you may request an extension of IRB approval.

Researchers who conduct studies involving human subjects have responsibilities as outlined
in the attached document, Responsibilities of Directors of Research Studies Involving
Human Subjects. (This document is also available at http://unh.edu/research/irb-
application-resources.) Please read this document carefully before commencing your work
involving human subjects.

If you have questions or concerns about your study or this approval, please feel free to
contact me at 603-862-2003 or Julie.simpson@unh.edu. Please refer to the IRB # above in
all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,
Julie F. Simpson
Director

cc: File
Potter, Sharyn
University of New Hampshire

Research Integrity Services, Service Building
51 College Road, Durham, NH 03824-3585
Fax: 603-862-3564

05-Aug-2014

Mitiguy, Angela
Sociology, Horton SSC
502 Piscassic Street
Newmarket, NH 03857

IRB #: 5957
Study: Understanding College Men and Women’s Perceptions of Sexual Behavior Responsibility through the Lens of the Human Papillomavirus
Approval Expiration Date: 17-Mar-2015
Modification Approval Date: 05-Aug-2014
Modification: Addition of survey

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved your modification to this study, as indicated above. Further changes in your study must be submitted to the IRB for review and approval prior to implementation.

Approval for this protocol expires on the date indicated above. At the end of the approval period you will be asked to submit a report with regard to the involvement of human subjects in this study. If your study is still active, you may request an extension of IRB approval.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the document, Responsibilities of Directors of Research Studies Involving Human Subjects. This document is available at http://unh.edu/research/irb-application-resources or from me.

If you have questions or concerns about your study or this approval, please feel free to contact me at 603-862-2003 or Julie.simpson@unh.edu. Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,

Julie F. Simpson
Director

cc: File
Potter, Sharyn