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Sex Education and Its Influences on College Sex Practices

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Abstract

This was a relational study to examine the possibility of a correlation between type of high school sex education and types of attitudes and behaviors towards sex within the context of the college social environment. A review of the literature shows that comprehensive sex education has been more effective than no sex education or abstinence only sex education in delaying sexual activity, more effective in providing students information on using contraceptives for safe-sex practices, and more effective in preventing unwanted pregnancies and the transmission of sexually transmitted diseases and the HIV virus. The literature lacked any substantial information on the effects of sex education specifically for college students. The data for this quantitative relational study came from a questionnaire administered to 100 freshman and sophomores at a private Catholic college in the New England area. Findings showed that there was a significant relationship between having a comprehensive education and having more positive knowledge and behaviors towards sex compared to those who had no sex education or an abstinence only sex education. Those who received a more comprehensive education were also less likely to drink and use illegal substances compared to those who did not have a comprehensive sex education. Future research should be used to determine ways in which sex education can be taught that may influence students to perform less risky behavior within the college social scene.

Sex Education and Its Influences on College Sex Practices

Sex education is one of the biggest issues being debated in the current American political atmosphere. The two main types of sex education being debated today are comprehensive sex education and abstinence-only sex education. Comprehensive sex education programs teach students about all the different aspects of sex including information on contraceptives, sexually transmitted diseases, and the biology behind hormones and sex organs (Rose, 2006).

Abstinence-only does not provide the plethora of information about sex that comprehensive does, but instead simply advocates that students refrain from sex until marriage (Santelli, 2006). This divide in pedagogy of sex education has become even more intensified in recent years, as increased funding has been given to abstinence-only education. The argument centers on the basic question of which style of sex education is more effective in preventing the initiation of sexual intercourse and therefore will be more likely to prevent the possible transmission of sexually transmitted disease and the HIV virus.

Proponents of abstinence-only sex education maintain that teaching students to avoid sex is the most effective way of dealing with sex education, centering on the notion that reinforcing the negative consequences of sex will be enough to scare students away from sex. Advocates of abstinence-only also think that comprehensive sex education programs influence students to be more likely to engage in sexual activity because comprehensive sex education programs give students information about contraceptives that can aid in preventing pregnancy and reduce the chances of spreading sexually transmitted diseases (Santelli, 2006). Abstinence-only advocates reason that if students have information on avoiding the negative consequences of sex, they will be more likely to try having sex at an earlier age.

Advocates of comprehensive sex education programs believe that students will decide on their own whether or not to engage in sexual activity, and therefore it is the responsibility of the education program to provide students with all relevant information regarding sex. Proponents of comprehensive sex education believe comprehensive programs do not encourage students to have sex because comprehensive sex education programs encourage students to delay initiation of sexual activity while at the same time providing students with all the relevant information about sex.

In the 1990's, Republicans took the majority in the House of Representatives and the United States Senate, and they began to increase the funding for abstinence-only sex education. In 2000, conservative Republican George W. Bush was elected President of the United States, and over the next eight years, he increased funding for abstinence-only sex education programs while decreasing funding for comprehensive sex education programs (Rose, 2006). As a result, many high schools across the country have begun to switch their sex education programs to abstinence-only. Other schools have simply eliminated their sex education programs due to the fact that schools often can only receive funding for sex education if it is abstinence only, and therefore choose to not have a sex education program. This is a debate that is unique to the United States of America since no other country in the world uses federal and state funding for financing abstinence-only sex education.

Since the increase in funding for abstinence-only sex education programs, there have been multiple studies that have looked at various types of correlations between type of sex education and sexual practices. Studies have looked at type of sex education in relation to future sexual practices, safe-sex practices, rate of sexually transmitted disease infection, and different kinds of sex practices. Few studies however have examined the relationship between type of sex

education received and sexual practice at the college level. While studies certainly have looked at possible correlations between type of sex education received and sexual lifestyle after receiving a particular type of sex education, none have looked at how sex education is related to sexual practice once students enter college.

The typical college social scene is very different from that of the typical high school. College lifestyle has taken on a whole new meaning as it now fosters many different risky behaviors such as binge drinking, partying, having multiple sexual partners, and drug use. Drinking is today almost expected to occur when one enters college. It is widely seen as a rite of passage, and this is only emphasized in popular culture in movies such as *American Pie*. Ravert (2009) discussed how risky behavior in college is almost universally expected and is accepted among student bodies for various reasons such as “only being young once.” How does sex education affect someone’s decisions and behavior in the college social scene? Is there a correlation between type of sex education received and sexual activity in the context of the college party lifestyle? This study seeks evidence towards answering these questions.

The implications of sex education are something that is very important to the social work profession. Sex education can be predictive of sexual behaviors and knowledge. Previous studies have shown that sex education can also affect rate of sexually transmitted diseases and the HIV infection. Social workers need to have a fundamental knowledge of what programs and policies benefit the clients and populations they work with. If a type of sex education is discovered to be more effective in terms of preventing teen pregnancies, STD rate, abortion, and transmission of the HIV virus, then social workers have the responsibility of advocating for that policy so that the clients they work with have the best possibility of receiving that particular kind of sex education.

The college social environment adds many different influences and possibilities to someone's sexual practices and beliefs. Social workers who work with clients who are a part of the typical college social scene need to have an understanding of what can influence students' behavior and choices within this environment. If there is a correlation between type of sex education received and sexual behaviors at the college level, then social workers need to be aware of it. It is imperative that social workers have as strong a knowledge base as possible about all the different kinds of factors that can influence someone's thinking and behavior, including the factor of sex education. The college environment is one that is unlike any other stage in the human lifespan, and therefore it needs to be studied separately in terms of seeing how sex education can influence someone during this stage of the lifespan. When adolescents enter college, they are often experiencing their first instance of independence from the rules of their family and high school. They are living on their own and essentially are adapting to an entire new lifestyle. Since there has been hardly any research on sex education and its influence on college sex practices, there is a need for more research, especially since it is information that could be vital to social workers working with clients who are involved in the average college party social scene.

This aim of this study is to investigate the possibility that a correlation exists between type of sex education received in high school and sexual practices and beliefs in the college environment. Most previous studies on sex education and its implications for sexual practices and knowledge have found that comprehensive sex education programs have more positive effects on students in terms of preventing teen pregnancy, lowering the rate of STD infection, and increasing safe-sex practices. Based on these previous findings, this study hypothesizes that students who received a comprehensive sex education in high school will engage in more safe

sex practices and fewer risky behaviors within college social dynamics compared to students who received an abstinence-only sex education or did not have a sex education. This study will survey students at a private Catholic college in the New England area, asking them about the kind of sex education they received in high school and also about their current sex knowledge, beliefs, and practices.

Literature Review

Most research on sex education thus far has focused on the relation between type of sex education and sexual practices, attitudes, behaviors, and knowledge after receiving a sex education. These studies have focused on students immediately after they have received their sex education while the students are still presumably in high school. There has not been any research directly focusing on type of sex education received in high school and possible correlations to sex practices in the context of the college social scene. The prior research on type of sex education reviewed in this section focuses on the history of sex education in the United States, different approaches to sex education in the school setting, and correlations of type of sex education to both positive and negative sexual behaviors.

The number of high school students receiving sex education in high school in the United States has increased dramatically in the past thirty years. In 1979, only 47% of all high school students took a class on sex education, whereas by 1994, nearly 90% of high school students had taken a course on sex education (Sabia, 2006). Although the number of students taking classes related to sex education has increased over the past thirty years, there is no consensus on what type of sex education should be taught in schools. The two main types of sex education taught at U.S. high schools are comprehensive sex education programs and abstinence-only sex education programs. Comprehensive sex education programs discuss many aspects of sex such as the

biology of sex, ways to prevent pregnancy including abstinence, information about STDs and AIDS, ways to deal with pregnancy including abortion, and contraceptive use and availability (Rose, 2005). Liberals tend to favor comprehensive sex education programs. Abstinence only sex education programs do not discuss use of contraceptives, the biology of sex, or information about STD's and transmission of AIDS. The only form of pregnancy prevention taught is abstinence. Such programs advocate that sex should be held off until marriage. Sex is also presented in a negative and fearful light in abstinence only education programs (Zanis, 60). Conservatives tend to favor abstinence only education programs.

Sex education is a very important policy decision in today's complex modern world, as described by Sabia (2006), "Sex education programs are of interest to policymakers. First, sex education is viewed as an information policy tool to reduce the future costs of teen pregnancies, as well as the costs of sexually transmitted diseases" (p. 783). The success of various sex education programs is critical to the health and well-being of teenagers as they make their way through the difficult and awkward stage of adolescence. Taking measures to implement programs that help reduce unwanted teen pregnancies through education is very important considering all the disadvantages for teenage mothers, "They become less likely to complete high school, less likely to attend college, more likely to have large families, and more likely to be single parents. They work as much as women who delay childbearing for several years, but their earnings must provide for a larger number of children" (Kirby, 2007, p. 144).

Sex education has also gained more attention recently since as a result of the struggling economy, many schools have had federal and state funding cut and have had to cut back on programs that are not absolutely necessary such as sex education (Sabia, 2006, p. 791). Sex education, however, might very well be considered a mandatory program for schools when one

looks at the troubling teenage pregnancy numbers in the United States. The U.S. has a high number of teenage pregnancies, with over 850,000 teens becoming pregnant every year, the highest rate of any modern industrialized country (Rose, 2006, p. 1209). Adolescent child rearing is also much more common in the United States than in any other country, as 22% of U.S. women have a child before the age of twenty (p. 1226). In 2001, nearly 82% of teen pregnancies were unplanned (Kirby, 2007, p. 144). Teenage pregnancy also affects the U.S. population as a whole since the annual costs to taxpayers of women giving birth under the age of nineteen was over \$9 billion in the year 2004 alone (p. 145). Clearly sex education is important because these startling numbers need to be addressed so that the overall sexual health and well-being of young women can be improved.

The debate over which kinds of sex education to use with students began in the early 1960's with the emergence of the Evangelical Christian right wing in the political spectrum. At first the conservative right did not want sex education taught in schools at all, although this proved to be an unpopular ideal with the majority of the U.S. population, and by the 1980's, evangelicals began to call for sex education in schools, but only if it was an abstinence-only program (Kirby, 2007). Recently, abstinence-only sex education programs have gained prominence in the United States. Currently, the U.S. is the only country that provides federal funding for abstinence-only sex education programs (Rose, 2006). In 1999, 23% of sex education taught in secondary schools was abstinence-only (Sabia, 2006, p. 797). In 1996 alone, the U.S. Congress authorized \$50 million for abstinence-only sex education programs (Zanis, 2005, p. 59). Since 1996, nearly \$1 billion in state and federal funding has been used for abstinence-only sex education (Rose, 2006, p. 1208). In 2005, abstinence only sex education received \$170 million in federal funding, and by 2006, abstinence only sex education programs

received \$205.5 million in federal funding (p. 1208). While federal funding for abstinence only education has increased, federal funding for comprehensive sex education has been cut (p. 1210).

Despite the increased funding and attention to abstinence only sex education programs, abstinence-only sex education has not proved to be very successful in terms of preventing sex or preventing pregnancy and the transmission of STDs. The United States leads all modern industrialized countries in teen STD rate, with people between the ages of fifteen and twenty-four representing about half of the new cases of STDs everywhere, despite the fact that this same age groups accounts for only 25% of the sexually active U.S. population (Kirby, 2007, p. 145).

Rose (2006) wrote one of the most extensive articles chronicling the rise in abstinence only sex education programs and the subsequent failures and shortcomings of this type of sex education. Rose showed that the U.S. has the highest abortion rate of any modernized country in the world, which is very surprising considering the strong anti-abortion sentiment in the U.S. One study conducted at a Texas high school actually found that 80% of teens in the study increased their sex rate after receiving an abstinence only sex education (Waxman, 2004). Overall, there is little empirical evidence that abstinence-only education programs have any significant influence on sexual behavior. Some studies on abstinence-only education have found that this kind of education does prolong the amount of time those receiving abstinence-only sex education take to have first intercourse, but sexual intercourse was only delayed anywhere from six to eighteen months (Sabia, 2006). Moreover, teens receiving abstinence-only sex education were more likely not to use contraceptives during their first sexual intercourse (Sabia, 2006). Kirby (2007) found that abstinence only education programs were not effective in changing adolescent sexual behavior and that there is little evidence that abstinence only programs delay

the initiation of sexual intercourse. Rose (2006) sums up the findings on abstinence only sex education with the following, “[Abstinence proponents] provide medical misinformation and promote fear and ignorance, and also fail to plan, fund, and implement effective social policy that could more effectively curb teen pregnancy and the spread of STDs” (p. 1224).

Comprehensive sex education programs on the other hand have proven to be successful in more than one facet. Comprehensive sex education has been shown to postpone the initiation of sexual intercourse, as well as increase the rate of successful use of contraceptive devices (Kirby, 2007; Sabia, 2006). In a review of 54 sex education program evaluations from high schools across the country, Kirby (2007) found that comprehensive sex education programs were associated with a 43% increase in condom use, a 40% increase in use of contraceptives in general, and a 71% reduction in the rate of adolescents having unprotected sex (p. 155). Most of the sex education programs studied, however, were comprehensive, and Kirby maintains that there was not a big enough sample of abstinence-only programs to see if there were any positive or negative effects of receiving an abstinence-only sex education (Kirby, 2007). Rose (2006), found that U.S. teens actually want more information about sex from their sex education, which is what comprehensive sex education provides unlike abstinence only sex education. Although most teens generally have a basic knowledge of contraceptives, most do not know how to properly use a contraceptive to prevent an unwanted pregnancy. According to Kirby (2007), of all teenage girls between the ages of fifteen and nineteen who use oral pill contraception, only 70% take the pill daily (p. 147). A comprehensive sex education may be more vital than people think since a greater proportion of U.S. women did not use contraceptives the first time they had sexual intercourse (25%), nor with their most recent sexual partner (20%), compared to countries in Western Europe such as France, where only 11% did not use a contraceptive with their first

sexual partner and only 12% did not use a contraceptive with their most recent partner (Rose, p. 1226). In a study using data from the National Longitudinal Survey of Adolescent Health from the years 1994-1996, Sabia (2006), found that exposure to comprehensive sex education is associated with greater use of contraceptives. Sabia also concluded that comprehensive sex education was less associated with increased rates of unprotected sex or increased pregnancy rates compared to abstinence sex education and instances in which sex education is not offered at the high school. Access to information about proper use of contraceptives is critical for children of teen mothers since they are at many disadvantages in American society, “[they] have less supportive and stimulating home environments, lower cognitive development, worse educational outcomes, higher rates of behavioral problems, higher rates of incarceration, and higher rates of adolescent childbearing themselves” (Kirby, 2007, p. 144). It is for these reasons that knowledge of contraceptives should be included in any sex education program according to comprehensive sex education advocates.

Conservatives in favor of abstinence-only sex education programs maintain that comprehensive sex education programs encourage sexual activity because they expose students to the idea of sex. However, by the time adolescents reach high school, most of them have at least a basic knowledge of sex, and many are already engaged in sexual practices before they ever receive a high school sex education. According to Zanis (2005), 34% of ninth graders in the United States have reported voluntarily engaging in sexual intercourse at least once (p. 59). Therefore by the time they reach a class about sex education, they already have a basic foundation of sexual knowledge and the idea of sex will be nothing new to them. In another study on the effectiveness of abstinence-only sex education programs, Zanis found that sexually active teens who went through an abstinence-only education program reported having sex within

thirty days of completing the abstinence-only education course, further showing that even before adolescents reach a sex education class, they have knowledge and experience of sexual activity, and that abstinence-only education will not be effective in decreasing sexual activities of students who are already sexually active. In the same study, Zanis found that sexually active students wanted sex education programs that focused more on sex knowledge such as contraceptive use and procurement, while sexually abstinent students wanted sex education classes that taught students simply to abstain from sex until marriage.

Franklin and Corcoran (2000) in a review of programs aimed at preventing teen pregnancy, argued that sex education programs should focus on certain areas in sex education, specifically on family planning, increasing teen use of contraceptives to prevent teen pregnancies, and understanding and preventive measures for STDs and AIDS. Franklin and Corcoran also concluded that in terms of preventing teen pregnancy, sex education programs work well when they are diversified in what knowledge and skills are passed along to students including but are not limited to abstinence. Sex education programs according to Franklin and Corcoran are at their best when both abstinence and contraceptive measures are discussed in full length, while noting that sex education programs suffer when only one or the other is discussed and emphasized.

Although there has been some research on the effects of sex education on teen's sexual patterns, there has not been much research on type of sex education and its effects on people as they enter college and begin to encounter college social life and engage in risky behaviors. Of course with teens, there are many more factors that affect their sex habits than just the type of sex education. As described by Sabia (2006) "[determinants include] community disadvantage, family structure and economic disadvantage; family, peer, and partner attitude and behaviors;

characteristics of teens themselves, detachment from school, biology” (p. 788). This is also true of college students and their sexual practices. Sex education is certainly not the only determining factor for a college student’s sex life, although it is one that should be studied and considered since other activities and influences have previously been looked at to see if they have any effect on the sexual practices and social behaviors of a college student.

One aspect that has been studied for its influence on sexual activity is alcohol consumption. Anderson and Sorensen (2006) conducted a study on the effects of drinking alcohol in making the act of engaging in sexual activity easier. This study was conducted factoring race, class, and gender variables. According to their study, men were more likely to drink to make it more easy and comfortable to have sex. They also found a high correlation between needing alcohol to have sex and number of sexual partners over the previous year (p. 3). Whites were more likely to drink more than blacks in order to have sex (p. 3). Andersen and Sorensen also found that 21% of males and 16% of students from upper class status needed to drink to have sex compared to 15% and 10% of males and females of lower economic status (p. 3). They also found that 100% of the participants used a contraceptive at least once while having sex over the previous year, even after having at least one alcoholic beverage (p. 3). Clearly alcohol does have some effect on the engagement of sexual activity in college students.

Davidson and Moore (1999) conducted a study that looked at the sexual practices of college women. They wanted to see if there was a correlation between age of receiving first information on contraceptives and sexual behavior in college. The study found that sex behavior of college age women was not in any way affected by age of receiving first knowledge about contraceptives. They showed that receiving information about sexual contraceptives before the age of thirteen did not affect sexual practices in college compared to girls who received

information about contraceptives after the age of thirteen. Schuster (1997) conducted a study that looked at the use of condoms among college students at a Midwestern United States university. The study found that their college students were generally uneducated about condom use and its preventive effects. College students were also very inconsistent with their use of condoms. Davidson and Moore (1999) also found that both women and men could improve their physical and emotional expectations of using a condom if they had more information about condom use. The study goes on to discuss that college students would benefit from increased knowledge about condoms and that it could possibly help cut down on unplanned college student pregnancies. Kirby (2007) found that as adolescents age from the time they are in high school to when they enter college, they are less likely to use a condom.

There is a lack of research on whether type of sex education affects adolescents as they enter college and begin to engage in the college social scene. There have not been any studies conducted on whether sex education affects students' likelihood of drinking or engaging in promiscuous sexual activities. There is no real evidence of how sex education will affect someone's practice of safe sex once that person enters college, which is a much different social environment from what students typically experience in high school. At most colleges, there is an increased amount of exposure to partying, alcohol consumption, substance abuse, sexual activity, and other risky behaviors. This study looks to see how receiving abstinence-only sex education, comprehensive sex education, or no sex education influences adolescents as they enter the college world and begin to encounter the college world of partying, alcohol, and sexual activity.

Methodology

The aim of this study is to identify possible correlations between type of sex education and sexual beliefs and practices in the context of the college environment. This was a relational study, examining the relationship between type of sex education received in high school and what kinds of sexual behaviors college students were engaged in, while also identifying a relationship between prior sex education experience and current attitudes towards sex within the college social scene. The study used a questionnaire which asked questions regarding type of high school sex education and current sexual thoughts, behaviors, and practices. (See Appendix A.) The study was administered based on a sample of convenience. If there is significant evidence of a relationship between type of sex education and sex practices in college, then hopefully there will be future research in this area so that policies on sex education can be enacted that are most beneficial to students receiving a sex education in high school.

Subjects

Subjects for this study had to meet certain criteria to be included in this research. They had to be either a freshman or sophomore within the student body of the private, southern New England college selected for this study. Juniors and seniors were not included because they were farther removed from their high school sex education experience. Subjects had to be full time college students who either lived on campus or lived in off campus housing within a mile of the college. Regular commuter students were not included in this study since they were not involved in the college social scene on a full time regular basis as are students who live on campus or in close proximity to it. Both male and female students were eligible for this study. Students also had to be between the ages of sixteen and twenty to be involved in this study, which fits the

criterion of being either a freshman or a sophomore since generally, most college freshman and sophomores are between the ages of sixteen and twenty.

Subjects were recruited based on snowball convenience sampling, in that students who were originally sampled then referred the researcher to other students who met the criteria to participate in the study. This usually consisted of going from dorm to dorm on campus and having as many students as were willing complete the survey within each particular dorm. Most of the dormitories on the college campus sampled for this study were divided by gender, and thus the researcher sampled the same number of male and female dormitories so that there would be as close to an equal percentage of male and female participants as possible. Having an equal number of male and female subjects for this study was imperative since gender was most likely going to be a significant control variable on the correlation between type of sex education and sex practices and attitudes while being engrossed in the college social scene. Snowball sampling was selected despite its research validity shortcomings since this study needed to be completed in a limited time frame with a small amount of funding.

Data Gathering

Subjects selected for this study filled out a questionnaire to gain information relating to answering the research aim of this study. All subjects filled out the same questionnaire. All subjects were notified of their informed consent, and were presented a description of their anonymity rights. Subjects filled out the survey and then deposited the survey into a folder while the researcher was not present to preserve complete confidentiality and subject anonymity. The survey consisted of a list of basic questions for subjects to answer, including age, gender, grade-level, and type of high school they attended, which would be either private or public (See Appendix A). The survey then presented a brief definition of each type of sex education, which

included comprehensive sex education, abstinence-only sex education, or no sex education at all. The definitions of each type of sex education were described according to the discretion of the researcher, and were presented as the following: “Comprehensive Sex Education- discusses many aspects of sex such as the biology of sex, ways to prevent pregnancy including abstinence, information about STDs and AIDS, ways to deal with pregnancy including abortion, and contraceptive use and availability; Abstinence-Only Sex Education- Abstinence only sex education programs do not discuss use of contraceptives, the biology of sex, or information about STD’s and transmission of AIDS. The only form of pregnancy prevention is abstinence, and sex should be held off until marriage. Sex is also presented in a negative and fearful light in abstinence only education programs; No Sex Education-There is no sex education program, and abstinence is not promoted or discussed.” (See Appendix A.)

The next part of the survey consisted of questions related to the participant’s high school sex education experience and the values they derived from it. Five point Likert Scales were used to gather information from these subjects on this particular section of the survey. The survey then asked questions related to the subjects’ current sexual practices, attitudes, and beliefs. A five point Likert Scale was used to derive information from the participants on some of the questions in this particular section of the survey. Some of the questions in this section of the study were nominal, requiring only a yes or no answer. The survey also asked participants about their college social habits, including how often they went out with friends, drank, and abused substances. A five point Likert Scale was used to derive information from subjects on this particular section of the survey. (See Appendix A.)

Data Analysis

The data derived from the surveys were analyzed to look for any possible correlations between type of sex education in high school and current sex practices, beliefs, and attitudes. Possible correlations between type of sex education in high school and engagement in risky behaviors at the college level, which included amount of partying, drinking level, and use of illegal substances were also analyzed, using the nonparametric Kendall's tau-b test. The relationship between gender, type of sex education, and current sex attitudes and practices was also examined using the nonparametric Kendall's tau-b test. Whether a high school offered comprehensive or abstinence-only sex education based on type of high school was also analyzed.

Findings

This was a correlational study looking at the relationship between type of high school sex education and its effect on students within the context of the college social environment. Different types of sex education were observed such as abstinence only, different levels of comprehensive sex education, and no form of sex education. This study looked to analyze the influence of high school sex education in three areas within the context of the college social environment: attitudes towards sex, knowledge about various aspects of sex, and behaviors related to sex, such as drinking and using illegal substances.

Overall, 100 college age students participated in the study, 51 of whom were males, and 49 of whom were females. Of the subjects, 57% were freshman, while 43% were sophomores. Out of all the participants, 49 attended a private high school, while 51 attended a public high school. Of the subjects collected, 34 of the males were freshman, and 17 were sophomores, while 23 of the female participants were freshman, and 26 were sophomores. The average age of subjects collected for the study was 18.84.

In terms of type of sex education, 12% of respondents did not have any form of a high school sex education. Out of all the respondents, 18% had an abstinence only sex education, meaning that 70% of respondents had at least some form of a comprehensive sex education, although the level of comprehensive education varied. Of the participants, 8% had a small amount of comprehensive sex education, while 25% of respondents had a complete comprehensive sex education. For the sample in this study, males were more likely to have a more comprehensive sex education than females with a mean of 4.25, compared to females, whose mean was 3.42 with the higher the mean, the more comprehensive of a sex education. The 3.42 mean lies between little comprehensive sex education and some comprehensive sex education. The 4.25 mean lies between some comprehensive sex education and mostly comprehensive sex education. Public schools were also more likely to have a more comprehensive sex education, although there were nine cases in both private and public schools in which there was abstinence only sex education. (See Appendix C).

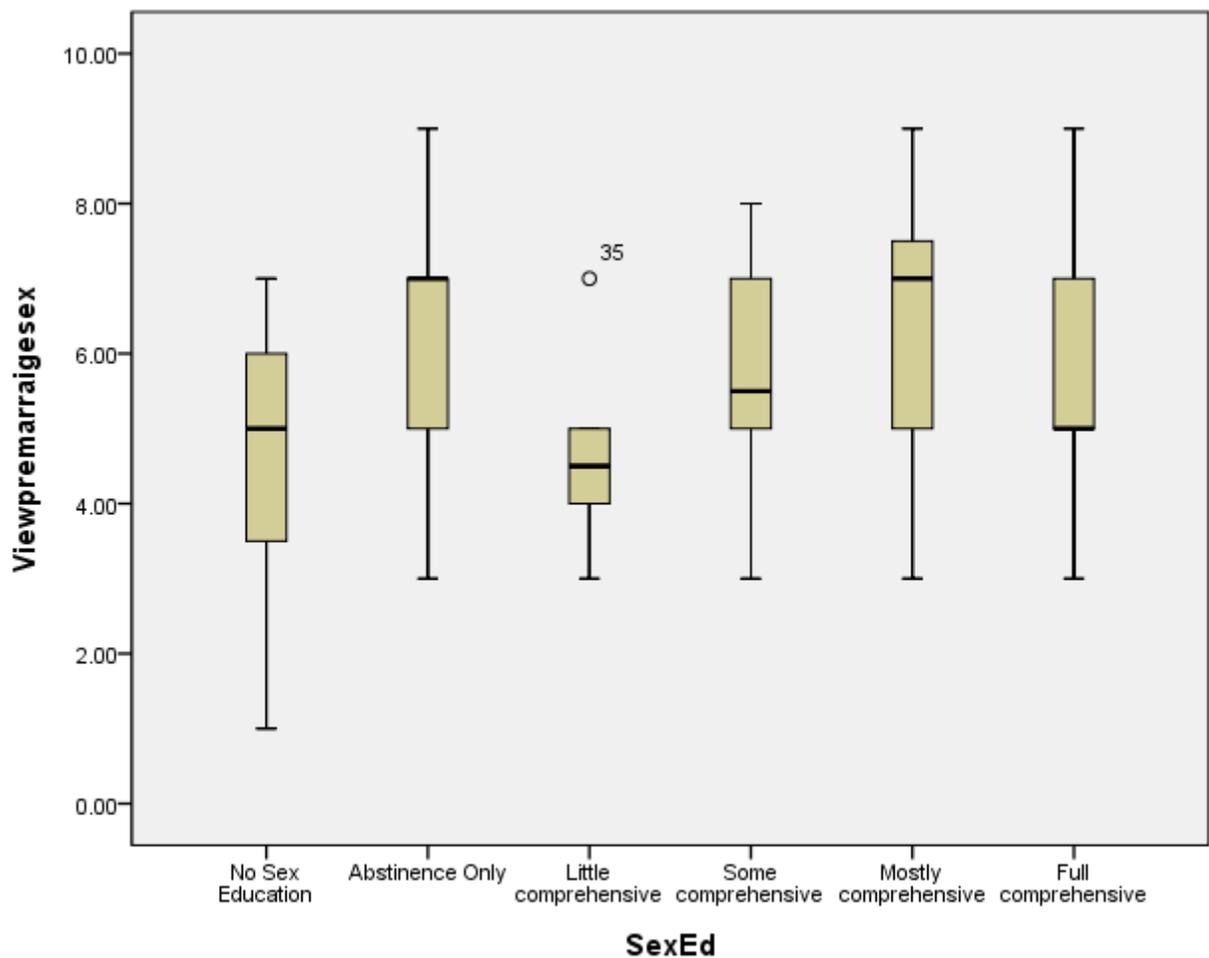
Knowledge

In terms of knowledge gained from sex education, based on a 9 point Likert scale, the mean was 5.3, most closely corresponding to the answer of “somewhat effective.” The more comprehensive the sex education that one had though, the more effective one viewed their sex education to be in terms of providing them new knowledge about sex. (See Appendix C).

The more comprehensive of a sex education one received, the more effective they thought it was not only in terms of new knowledge about sex, but also in developing safe sex practices (See Appendix C). In terms of providing knowledge and means for delaying or preventing sexual activity, abstinence only and no sex education had the lowest means for this

High school sex education does not appear to have much of an association with favorable or unfavorable view of pre-marital sex, as there were mixed results from high school type education (See Chart 1). A correlation measuring technique in the SPSS computer system found that there was not a significant relationship between type of sex education and favorable or unfavorable views on pre-marital sex, as the level of significance was $p=.187$, which is above the .05 standard for significance.

Chart 1 Box Plot on View towards Pre-Marital Sex



In terms of views of people waiting or not to have sex before marriage, 18% of respondents felt that people should wait until marriage until they had sex, while 42% of the

sample said that people should not wait until marriage to have sex for the first time, while 40% had no opinion on whether or not people should wait until marriage to have sex.

There was a significant relationship between type of high school sex education and view on using contraceptives when people engage in pre-marital sex. The more comprehensive of a sex education one received, the more likely they were to have a favorable view of people using contraceptives if they were to engage in premarital sex, ($T=.160$, $p=.025$, 1-tailed).

Behaviors

Both questions on the survey regarding sex within the college environment, frequency and number of partners, were related to activity within the past three months upon completion of the survey (see Appendix A). There was a difference for sex education and sexual activity within the past three months as greater comprehensive sex education was associated with more sexual activity in the past three months, ($T=.238$, $p=.002$, 1-tailed). The higher the score, the more likely someone receiving that particular type of sex education had engaged in sexual activity within the past three months (see Appendix C).

The question on number of sexual partners over the past three months also applied the same idea in that the higher the mean average, the higher number of sexual partners on average for each type of sex education. There was no significant relationship between number of sexual partners and type of sex education. Not a single sample said they had any sexually transmitted disease or the HIV virus, and 99 said they did not, while only one said unsure.

There was also no significant relationship between type of sex education and how often they did or did not engage in safe-sex practices. Those who received an abstinence only sex education were more likely to go out during the week, while those with a full comprehensive sex education were least likely to go out during the week, although this relationship was also found

to not be statistically significant. There were significant relationships for type of sex education and how often respondents drank and used illegal substances. Those who had more of a comprehensive sex education drank less often compared to those who had an abstinence only or non sex education, $T=-.139$, $p=.041$, 1-tailed). Respondents who had a more comprehensive sex education were also less likely to use illegal substances (see Table 1 and Appendix C).

Implications

This was a relational study exploring the possible relationship between type of high school sex education and attitudes and behaviors towards sex within the college social environment. The literature review showed that comprehensive sex education programs are often more effective in delaying sexual activity, more effective in providing students information on using contraceptives for safe-sex practices, and more effective in preventing unwanted pregnancies and the transmission of sexually transmitted diseases, and the HIV virus. Questionnaires were given out to 100 college age students including freshman and sophomores. Major statistically significant findings showed that students who had some form of a comprehensive sex education rated themselves as having more knowledge about sex, having developed safe sex practices, having had their attitudes towards sex shaped by their particular education, having a more positive view towards sex, having a more positive views towards contraceptives used to engage in pre-marital sex, and to drink and use illegal substances less than students who received an abstinence only education or no sex education. Another finding showed that students who received a comprehensive sex education were more likely to have had sex more in the past three months compared to students who received an abstinence only sex education.

Most of the major findings supported the hypothesis of this study, that students who received a comprehensive sex education would be more likely to engage in more safe sex practices and less risky behaviors within college social dynamics compared to students who received an abstinence-only sex education or did not have a sex education. However, the findings did contradict some aspects of the hypothesis, specifically the significant relationship of students receiving a comprehensive sex education being more likely to have sex more often in the past three months. However, this finding does not necessarily mean that students who received a comprehensive sex education are engaging in more risky behaviors such as promiscuous sex. It is possible that students who said they are having sex more often within the past three months are doing so with only one person such as a significant other. There was no significant evidence from this study that showed those who are having more sex are doing so with multiple partners. In fact, 36% of respondents said they had no sex partners in the past three months, and 59% said that they had one or two sex partners in the past three months, meaning that only 5% of the subjects had sex with more than three people within the past three months.

In an ideal study, there would have been an equal number of students with an abstinence only sex education and a comprehensive sex education. In this study, only 18 subjects that indicated they had an abstinence only sex education, compared to the 70 subjects that said they had at least some form of a comprehensive sex education. Further research needs to be done in which there are equal numbers of students with the differing types of sex education for a better comparison. This study was not able to recruit and find an equal number of comprehensive and abstinence only educated students due both time and financial restraints. Therefore, although some of the findings were statistically significant, more research is needed

on the relationship between type of sex education and behavior and attitudes in the college social environment due to the fact that there was such a disparity in numbers between types of sex education for this study.

Another need for further research has to do with the lack of information on students with sexually transmitted diseases. One of the main points of sex education is to better prepare students for safe practices that prevent the transmission of STDs. However, in this study, not a single subject indicated that they knowingly had a sexually transmitted disease. In fact, a staggering 99% of respondents said they knew they did not have any sexually transmitted diseases, while only one respondent reported being unsure. This may have been due to the fact that students felt uncomfortable disclosing such information even in a manner that protected confidentiality. It may also have to do with student background since the school site of this study generally attracts white Catholics from middle or upper class backgrounds.

Further research needs to continue examining the relationship between sex education and behaviors and attitudes within the college social scene. However, future research should build on the findings from this study and incorporate other influencing factors for college attitudes and behaviors. Other factors that this study did not include are household makeup and composition, year in which the sex education was received, race and ethnicity, and cognitive ability. There are multiple factors that need to be researched in combination with effects of high school sex education.

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Appendix A

Dear Potential Participant:

I am a social work major at Providence College, inviting you to participate in a study of the relationship between type of high school sex education and beliefs and practices in college. The purpose of this research is to find out how type of sex education is related to one's practices in the college social environment. Data gathered in this study will be reported in a thesis paper for use in a social work course at Providence College.

At this time, college students are being recruited for this research. Participation will involve answering questions on a survey about type of sex education received in high school and current behaviors and beliefs. The time needed to complete the survey should not exceed 10-20 minutes.

There are no anticipated significant risks associated with involvement in this research. There is always the possibility that uncomfortable or stressful memories or emotions may be stirred up by thinking about past or current experiences. Participants are free to cease participation in this study at any time until the questionnaire is submitted. If participants seek emotional support, professional resources will be provided by the researchers.

Benefits of participating in this study include helping researchers to formulate a better or related understanding of how type of high school sex education can affect behaviors in the context of the college social scene. There is no other anticipated compensation.

Confidentiality of participants will be protected by collecting the questionnaires in a way that ensures anonymity.

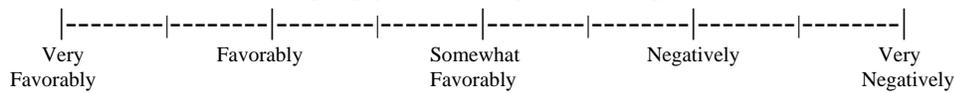
Participation in this study is voluntary. A decision to decline to participate will not have any negative effects for you.

YOUR SUBMISSION OF A COMPLETED QUESTIONNAIRE INDICATES THAT YOU HAVE READ AND UNDERSTOOD THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

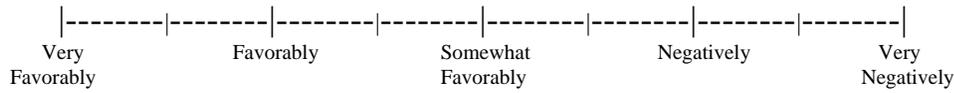
Thank you for participating in this study.

Matthew Yetsko, Social Work Student, 609-335-8362, myetsko@friars.providence.edu

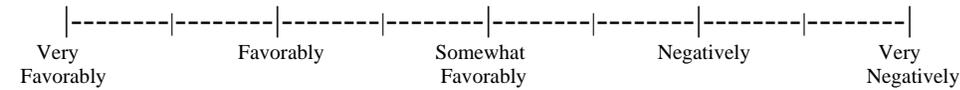
B. Effective in helping you develop safe-sex practices



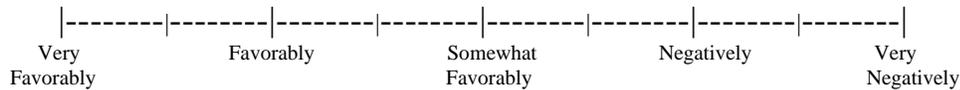
C. Effective in delaying or preventing you from beginning sexual activity



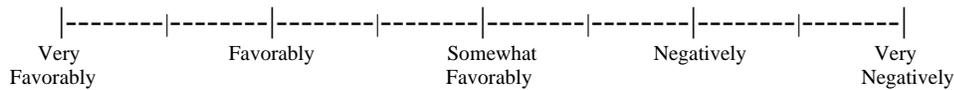
D. Effective in shaping or changing your attitude towards sex



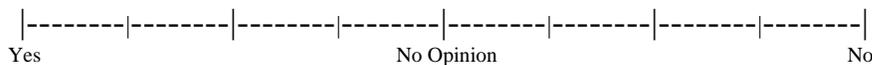
2. How did you view sex initially after receiving your high school sex education?



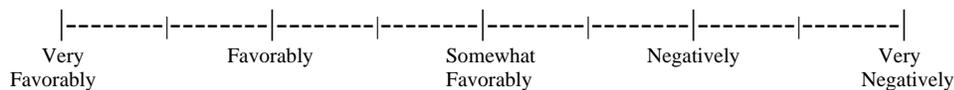
3. How do you currently view people who decide to engage in sexual activity prior to marriage?



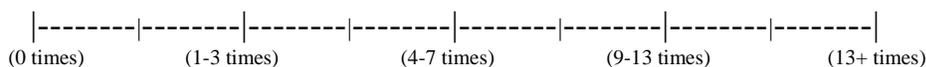
4. Do you think people should wait until marriage to have sex for the first time?



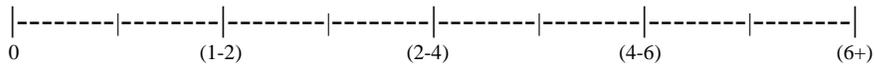
5. How do you view people using contraceptives in order to safely engage in pre-marital sexual activity?



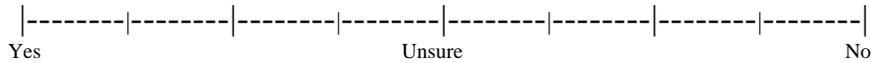
6. How often have you engaged in sexual activity within the past three months?



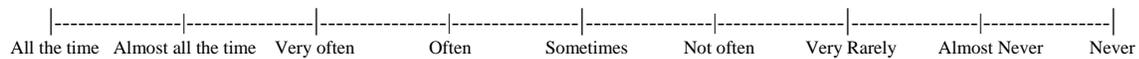
7. How many sexual partners have you had in the past three months?



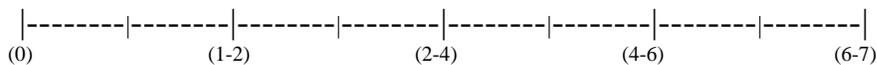
8. Do you currently and knowingly have any sexually transmitted diseases or the HIV virus?



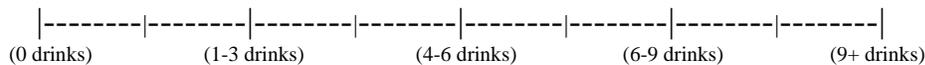
9. When engaging in sexual activity, how often do you use safe sex practices to prevent pregnancy or the transmission of STD's? If you do not engage in sexual activity, answer how you would practice safe sex if you did engage in sexual activity.



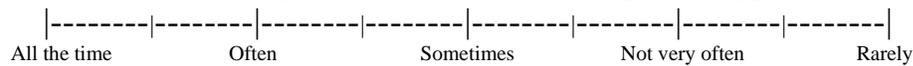
10. How many times a week do you go out to a bar or party?



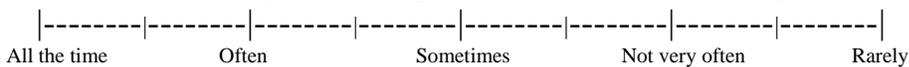
11. How much do you drink when you go out?



12. How often do you drink alcoholic beverages in a typical week while at college?



13. How often do you use illegal substances while at college?



Appendix C

Appendix Table 1

Sex Education and Type of High School Attended

		Schooling		Total
		Private	Public	
SexEd	No Sex Education	7	5	12
	Abstinence Only	9	9	18
	Little Comprehensive	5	3	8
	Some Comprehensive	14	8	22
	Mostly Comprehensive	6	9	15
	Full Comprehensive	8	17	25
Total		49	51	100

Appendix Table 2

Type of Sex Education and Knowledge of Sex

SexEd	Mean	N	Std. Deviation
No Sex Education	3.6667	12	2.46183
Abstinence Only	3.8333	18	1.50489
Little comprehensive	4.3750	8	1.59799
Some comprehensive	5.5909	22	1.59341
Mostly comprehensive	6.2667	15	1.38701
Full comprehensive	6.9600	25	1.39881
Total	5.3900	100	2.03948

Appendix Table 3

Type of Sex Education and Ability to Develop Sex Practices

SexEd	Mean	N	Std. Deviation
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No Sex Education	3.2500	12	1.60255
Abstinence Only	4.5000	18	1.91741
Little comprehensive	5.1250	8	1.95941
Some comprehensive	5.6364	22	1.89097
Mostly comprehensive	6.1333	15	1.45733
Full comprehensive	7.1600	25	1.49108
Total	5.5600	100	2.08564

Appendix Table 4

Type of Sex Education and Delaying Onset of Sexual Activity

SexEd	Mean	N	Std. Deviation
No Sex Education	3.9167	12	1.78164
Abstinence Only	3.7222	18	2.10896
Little comprehensive	5.5000	8	2.50713
Some comprehensive	4.5909	22	1.68068
Mostly comprehensive	4.5333	15	1.88478
Full comprehensive	4.4400	25	1.87261
Total	4.3800	100	1.93208

Appendix Table 5

Type of Sex Education and Frequency of Sex within the Past Three Months

SexEd	Mean	N	Std. Deviation
No Sex Education	1.7500	12	1.13818
Abstinence Only	2.0556	18	1.34917
Little comprehensive	2.0000	8	1.41421
Some comprehensive	2.3636	22	1.25529
Mostly comprehensive	2.8667	15	1.45733
Full comprehensive	2.9200	25	1.63095
Total	2.4200	100	1.43675

Appendix Table 6

Type of Sex Education and Frequency of Using Drugs During the Past Three Months

SexEd	Mean	N	Std. Deviation
No Sex Education	3.0833	12	2.77843
Abstinence Only	3.4444	18	2.61719
Little Comprehensive	2.6250	8	1.59799
Some Comprehensive	2.1818	22	1.91824
Mostly Comprehensive	3.1333	15	3.24844
Full Comprehensive	1.9600	25	1.64520
Total	2.6400	100	2.34206