

ENVIRONMENTAL AND PERSONAL FACTORS
INFLUENCING RISKY BEHAVIORS

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ABSTRACT

The purpose of this study was to examine personal and environmental factors that affect condom use of individuals. In particular, this study focused on self-efficacy, birth control, peer support, past experience with sexually transmitted diseases, and assertive personality trait. Participants were recruited from California State University, Fullerton and were enrolled in a Psychology 101 course. Participants completed a self-report paper/pencil survey that included various questions on condom use related to personal and environmental factors. Results indicated that peer support predicts personal condom use. In addition, personal belief on birth control use is significantly associated with condom use, and those who score high on sexual assertiveness are significantly associated with greater condom use self-efficacy. The results from this study can make important contributions to the field of sexual health and improve understanding of risky sexual behaviors.

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CHAPTER 1

INTRODUCTION

People engage in risky behaviors every day, but when those risky behaviors affect the well-being and health of an individual, one has to wonder what causes someone to engage in those activities. Sexually transmitted diseases (STDs) can be products of risky sexual behaviors. Individuals sometimes participate in sexual activities without using protection (for example, a condom) even if they know the probability of contracting an STD is high. The Centers for Disease Control and Prevention (CDC) found an increase in reported cases of chlamydia and gonorrhea from 2010 to 2011 (Centers for Disease Control and Prevention, 2011). Specifically, there was an 8% increase in reported cases of chlamydia from 2010, and a 4% increase in reported cases of gonorrhea from 2010.

Those who are considered high-risk for these STDs are between the ages of 15-24, with 70% of the reported cases of chlamydia and 62% of reported cases of gonorrhea falling into this age range. In addition, there were approximately 47,500 new cases of HIV in 2010 (CDC). Those aged 25-34 were determined to be at highest risk with approximately 31% of those infected during 2010 falling into this age group, followed by 26% between the ages of 13-24 (CDC). Approximately 6% of college females contracted an STD within the last

year (Lindley, Barnett, Brandt, Hardin, & Burcin, 2008). While this may seem like an insignificant number, these women reported engaging in risky behaviors such as binge drinking and drug use which may have contributed to their unsafe sex practices.

With STDs and unsafe sexual practices in mind, the current study will examine various factors that influence condom use with a college age population. Specifically, this study will apply expectancy theory to examine how past sexual practices influence future sexual practices, and how factors such as birth control, personality, and self-efficacy influence risky sexual behaviors.

Expectancy Theory and Risky Behaviors

One reason people report engaging in risky sexual behaviors is because they expect to engage in the behaviors after consuming alcohol or drugs, meaning they have preconceived beliefs that it is possible they will use drugs or alcohol and those behaviors can lead to riskier ones. Expectancy Theory states that expectancies influence all behavior (LaBrie, Schiffman, & Earlywine, 2002). For example, when individuals believe drinking alcohol will impair their judgment and also believe they will be less likely to use a condom when they drink, then they are less likely to use a condom when they drink and engage in sexual activity. In contrast, people who do not hold these beliefs are more likely to use a condom when they drink because they do not hold a preconceived notion they will have impaired judgment on this aspect. In other words, when a person believes he or she will have impaired judgment on condom use after consuming alcohol, they will be less likely to use a condom compared to individuals who do

not believe they will have impaired judgment on condom use after consuming alcohol. It is not necessarily the drugs or alcohol that influences judgment regarding sexual behaviors, but rather it is the belief before using drugs or alcohol that influences the risky behavior.

Derman and Cooper (2000) conducted a study which found that individuals who held the belief that alcohol will impair condom use will be less likely than others to use a condom and will experience more conflict regarding the decision to use a condom. This was only true for the first instance of sexual intercourse with an individual. Researchers also found that condom use was low with individuals who were in intimate relationships (Derman & Cooper). Applying expectancy theory to sexual behaviors can help account for the discrepancy between the self-perceived knowledge of acquiring an STD and continuing to engage in risky behaviors despite this knowledge.

Condom Use Factors

Self-Efficacy

Judgment of self-efficacy mediates behavior and determines whether people initiate an action, how much effort they expend, and how long they persist (Wulfert & Wan, 1993). People protect themselves only to the degree they believe they can protect themselves when needed. People often expect certain outcomes are the result of certain behaviors but they still engage in risky behaviors despite the knowledge of a possible negative outcome. Only 10% of college students believe they are at risk of contracting HIV, and 36% of college students did not use a condom with any partner within the past year (Lewis,

Malow, & Ireland, 1997). In addition, 52% of respondents used oral contraceptives rather than condoms because they believed they were at low risk of contracting HIV (Lewis et al., 1997). The fear of contracting HIV was the main determining factor for condom use. If the fear was low then the rate of condom use was low regardless. While there are other STDs they may have contracted, the respondents did not believe they were at risk for these so they did not use protection when they engaged in sexual activities.

Oei and Burrow (2000) found that self-efficacy is not generalizable to all behaviors. For example, the risks associated with caffeine and nicotine use are not associated with self-efficacy (meaning individuals are less likely to refuse these items when given a choice). In contrast, self-efficacy is related to alcohol refusal. There may be many reasons as to why this occurs, but one reason may be the perceived higher risks associated with alcohol use.

As previously stated, individuals will protect themselves only to the degree they believe they can, meaning individuals who do not perceive something as risky will tend to engage in those behaviors despite having some knowledge about the negative effects of those behaviors. With that being said, what accounts for the discrepancy? Expectancy theory can help account for part of this discrepancy in human behavior. Human behavior is not the result of one factor influencing another, but rather multiple factors such as personality, knowledge about said behaviors, peer support, and self-efficacy.

STD Susceptibility

The knowledge an individual has about a subject will influence his or her judgment and decision-making capabilities. Wulfert and Wan (1993) found that when individuals believe using condoms will have a negative consequence such as diminished pleasure they will also have decreased self-efficacy and condom use. The belief that using a condom prevented pregnancy and disease was associated with greater self-efficacy and increased condom use (Wulfert & Wan). Numerous studies have found that individuals are more likely to use a condom with casual partners compared to long-term partners because they believe their risk for contracting an STD is low when they are with someone long-term (Derman & Cooper, 2000; Loue, 2006). It was also found that once a woman knew and trusted her partner, she no longer felt the need to use a condom for the prevention of HIV (Loue). Expectancy theory would suggest that these subjects expected that long-term relationships resulted in monogamy from both partners, thus decreasing the risk for contracting HIV. However, studies have found that relationships that are presumed to be monogamous by one partner may not be perceived that way by the other. Approximately 70% of a sample of participants reported having had extramarital sex (Loue).

Despite perceived accurate knowledge of STDs, college students were no more likely to use a condom than those who were less knowledgeable (Lewis et al., 1997). Even those who reported having a high number of sexual partners in the past three months and thought of themselves as high risk for HIV were not more likely to use a condom than those who believed they were at low risk

(Lewis et al.). One reason for this disparity is the fact that those who thought they were knowledgeable about STDs and HIV had misconceptions about how to contract the disease (Lewis et al.).

Many students believed they were at low-risk for contracting an STD because they had not contracted an STD in the past. Many people are also under the misconception that if they have high standards of personal hygiene or take care in choosing a sexual partner they will not be at risk for contracting an STD (Kelly, 1994). In addition, those who are on birth control pills or begin taking birth control pills decreased condom use by 27% (Goldstein, Upadhyay, & Raine, 2013). Expectancy theory would suggest the decrease in condom use after introducing hormonal birth control pills could mean subjects did not believe they were at risk for contracting STDs. Rather, hormonal birth control decreased condom use due to the perceived lower risk of getting pregnant which goes back to inaccurate knowledge of how to obtain an STD or possibly discounting the risk of obtaining an STD altogether.

Personality

In addition to knowledge and past behaviors influencing condom use, personality traits have also been linked to high risk behaviors including sexual behaviors (Trobst, Herbst, Masters, & Costa, 2002). Trobst and colleagues found that conscientiousness, agreeableness, and neuroticism are associated with high risk sexual behaviors. Neuroticism was highly correlated with risky sexual behaviors above all other traits. One trait that influences decision-making is assertiveness. Previous studies have found that those who score high on

levels of assertiveness are more likely to have more positive views toward condom use and insist on using a condom more often than those who score low on levels of assertiveness (Sickenius, 1997). Some research has been conducted on assertiveness and condom use when under the influence of alcohol. One study found that women who were under the influence of alcohol were less likely to be assertive regarding condom use despite having previous intentions of using a condom (Purdie et al., 2011). In addition, the more a woman wanted to engage in sexual intercourse with a partner, the less likely she was to use a condom.

Certain outcomes are expected from certain behaviors but there are mitigating factors that can account for the discrepancy when one engages in risky behaviors despite the knowledge that the behavior may end with negative consequences. Expectancy theory states that expectancies influence all behavior. We can apply this to personality traits to understand how these traits influence decision making. Self-esteem is one factor known to influence behavior. A study conducted to examine the outcome of low self-esteem and risky behaviors found that individuals neglected in childhood were more likely to develop low self-esteem and negative attitudes toward condom use (Klein, Elifson, & Sterk, 2007). In addition, these subjects also reported more instances of HIV risk related behaviors.

Trait anxiety has also been found to influence human behavior. Low trait anxiety is associated with risky decision making compared to those who score high on trait anxiety (Peng, Xiao, Yang, Wu, & Miao, 2014). Individuals with high

trait anxiety are more conservative than those who score low on trait anxiety because they tend to overestimate potential risks. Trait anxiety could affect the processing of information that could lead to engaging in risky behaviors.

According to expectancy theory, this would mean individuals who score high on trait anxiety would edit the information differently than those who score low on trait anxiety which could suggest that they expect different outcomes than their counterparts. This would suggest that those who have low trait anxiety would engage in more risky behaviors because they do not expect more negative outcomes compared to those with high trait anxiety who overestimate negative outcomes including engaging in sexual behaviors.

Social Environment

One's environment influences how that individual will respond to certain situations. Social environment has been found to have an effect on condom use. Expectancy theory can be applied to social environment when accounting for discrepancies in condom use. Engaging in safe sex practices can be influenced by our perceived outcome of the situation or the degree to which one believes the outcome will result in a negative consequence. Safe sex practices can include negotiation before engaging in sexual intercourse. Sexual partners are more likely to use a condom when condom use is negotiated before intercourse (Trobst et al., 2002). If this is true then what else can account for the discrepancy between condom use and safe sex practices?

Peer norms are significantly more likely to influence condom use. If individuals believed their peers used condoms more often, they were more likely

to use a condom as well (Wulfert & Wan, 1993). Expectancy influences all behaviors according to expectancy theory. Thus, individuals who expect their peers have more positive views towards condom use will also be more likely to engage in safe sex practices themselves and protect themselves to a greater degree compared to those who do not have this positive peer influence.

Low socioeconomic status has also been found to contribute to high instances of sexually transmitted diseases (Rogan et al., 2010). This can be due to low resources available for protection against STDs and also not enough education about the dangers and risk factors associated with contracting an STD. In addition, those from low socioeconomic communities may be exposed to more negative life experiences which may promote risky sexual behaviors such as infrequent condom use, multiple sex partners, and early sexual activity (Wickrama, Merten, & Wickrama, 2012). Individuals from a low socioeconomic status might expect these behaviors to occur more often which influences their decision to engage in risky behaviors.

Current Study

The current study will assess the factors associated with condom use and safe sex practices as related to expectancy theory. In particular, this study will focus on factors such as self-efficacy, assertive personality trait, birth control, environmental factors such as social stigma and peer influence, and past experiences with sexually transmitted diseases on safe sex practices. The following hypotheses are suggested:

Hypothesis 1

Individuals who do not believe a condom is needed when a female is taking birth control pills will be less likely to use a condom compared to those who do not hold this belief.

Hypothesis 2

Knowing a sexual partner, past or present, has had a sexually transmitted disease in the past will positively influence condom use. Those who ask or know if their partner has had an STD in the past will be more likely to use a condom than those who do not know their partner has had an STD.

Hypothesis 3

Individuals who score high on assertive personality traits will be more likely to use or insist on using a condom.

Hypothesis 4

Accurate knowledge about sexually transmitted diseases will be associated with high levels of condom use whereas inaccurate or insufficient knowledge about sexually transmitted diseases will be associated with low levels of condom use.

Hypothesis 5

Individuals who have greater peer support and have friends who report condom use will have more positive views toward condom use compared to those who have low levels of peer support and friends who do not report condom use. Greater peer support and peer condom use will predict high levels of condom use.

CHAPTER 2

METHODS

Participants

Participants were students enrolled in a Psychology 101 course at California State University, Fullerton. All participants were 18 years of age or older due to the nature of the questions and consent. Data were taken from a larger unpublished dataset and study. The racial breakdown of the sample was African American (1.8%), Asian (23.4%), Hispanic (41.4%), Caucasian (24.3%), and Other (9.0%). Average age of the population was 19 years old ($SD = 3.10$), with age ranging from 18 to 44. A breakdown of relationship status includes 38.7% of participants reporting they were not dating anyone, 14.4% reported dating casually, 4.5% reported dating regularly, 39.6% reported dating steadily, .9% reporting engaged, and 1.8% reporting married.

Measures

Demographics

Demographic information was collected, including individual's age, gender, relationship status, length of relationship status, exclusivity of relationship, total number of sexual partners during lifetime, degree to which participant agrees with future condom use, whether the participant has engaged in sexual intercourse within the last two weeks, and participant's race/ethnicity.

HIV/STD Testing and Safe-Sex

The HIV/STD and safe-sex items included HIV testing, condom use, number of sexual partners, likelihood that unprotected sex could lead to HIV infection, and the use of intoxicants during sexual intercourse. Participants rated the degree to which they believe they are likely to use a condom, ask a partner if they have been tested for HIV, how often intoxicants are used during intercourse, and how likely unprotected sexual intercourse with a partner could lead to HIV.

Condom Use Self-Efficacy

The condom use self-efficacy subscale was utilized for the current study, taken from a broader measure addressing condom outcome expectancies (Dilorio, Maibach, O'Leary, Sanderson, & Celentano, 1997). The self-efficacy scale was designed to measure an individual's degree of confidence about condom use. The measure was designed on a five-point scale (not at all sure to completely sure) in which participants rated the extent to which they believe they can engage in the practices for each statement. Current sample reliability for the measure (Cronbach's alpha) was .90.

STD Knowledge

The STD Knowledge Questionnaire (Jaworski & Carey, 2007) is a 27-item measure that assesses knowledge about sexually transmitted diseases. Two factors are present in the measure and include a cause/cure factor and general knowledge factor. The STD Knowledge Questionnaire was designed to aid with risk assessment and knowledge deficits regarding sexually transmitted diseases. Participants responded to items on the basis of True/False/Don't Know.

Statements about sexually transmitted diseases are made and participants rate whether they believe that statement is true, false, or they do not know. Sample items are: "Human Papillomavirus (HPV) is caused by the same virus that causes HIV," and "A person who has genital herpes must have open sores to give the infection to his or her sexual partner."

Sexual Risk Behavior Beliefs

One item was taken from a broader available measure, the Sexual Risk Behavior Beliefs and Self Efficacy Scale (Basen-Engquist et al., 1998). The item, "I believe condoms should always be used if a person my age has sex, even if the girl uses birth control pills " was scored on a four-point scale (definitely no to definitely yes).

Sexual Risk

One item was taken from a broader measure of sexual risk; the Sexual Risk Survey (Turchik & Garske, 2008). The item, "How many times have you had sex with a new partner before discussing sexual history, IV drug use, disease status and other current sexual partners?" was scored by dichotomizing the high responses from the low using a median split.

Sexual Assertiveness

The sexual assertiveness subscale from the Sexual Awareness Questionnaire (Snell, Fisher, & Miller, 1991) was utilized in the current study. Participants rated how characteristic each statement was of them based on a five-point scale (not at all characteristic of me to very characteristic of me). Current sample reliability for sexual assertiveness was .78.

Procedures

Data were collected from university students at California State University, Fullerton (CSUF) through self-report paper/pencil techniques. All data collected were anonymous. The study was placed on an online research database (the SONA system) run by the Department of Psychology at CSUF to recruit participants. This online database provides information about studies conducted on campus and allows individuals to sign up for studies in which they wish to participate. An announcement of this study was posted on the SONA system as well as information about study times, dates, and locations for completion of the questionnaire.

Students who chose to participate arrived to a predetermined room and time and were asked to place a check next to their name on a sign in sheet to indicate they showed for the study. Participants were then provided a questionnaire. Upon receiving the questionnaire, participants were instructed to read the cover letter informed consent. The cover letter informed consent informed participants of their rights to confidentiality and the ability to withdraw from the study at any time. Participants were instructed to read all directions very carefully and instructed not to put their name on any part of the survey to ensure anonymity. Participants were informed that, upon completion of the survey, they were to drop their survey in a designated box on their way out of the room. Research credit was provided for participants who showed up at the designated survey time and deposited their survey in the survey box regardless of whether they completed the survey or not.

After the participants read through the consent form, they began the survey which consisted of various questionnaires to assess sexual practices and risk taking behaviors. They were instructed to read through the directions before each new scale started, and select the answers most characteristic of them. Participants had as much time as they need to complete the survey. Once finished with the survey, participants were debriefed through the debriefing form attached at the end of the survey. At that point, they were thanked for their participation and received credit for their Psychology 101 course.

Analyses

Hypothesis 1

Individuals who do not believe a condom is needed when a female is taking birth control pills will be less likely to use a condom compared to those who do not hold this belief. A t-test will be used to test the difference in condom use between those who hold this belief and those who do not hold this belief. The independent variable is the single item question on birth control and the dependent variable is the single item question on condom use.

Hypothesis 2

Knowing a sexual partner, past or present, has had a sexually transmitted disease in the past will positively influence condom use. Those who know their partner has had an STD in the past will be more likely to use a condom than those who do not know their partner has had an STD. A t-test will be used to test the difference in outcome on condom use between those who have previous knowledge of a partner having an STD in the past versus those who do not know

or ask if their partner has had an STD in the past. The independent variable is the single item question on whether the participant has asked their partner about testing and the dependent variable is the single item question on condom use.

Hypothesis 3

Individuals who score high on assertive personality traits will be more likely to use or insist on using a condom. A t-test will be used to test the difference in outcome on the condom use self-efficacy scale for those who score high versus low on the sexual assertiveness risk scale.

Hypothesis 4

Accurate knowledge about sexually transmitted diseases will be associated with high levels of condom use whereas inaccurate or insufficient knowledge about sexually transmitted diseases will be associated with low levels of condom use. A correlation will be used to test the outcome in condom use between those who have higher scores on the STD Knowledge Questionnaire compared to those who have lower scores. More specifically, higher scores will be associated with high levels of condom use whereas lower scores on the STD Knowledge Questionnaire will be associated with low levels of condom use.

Hypothesis 5

Individuals who have greater peer support and have friends who report condom use will have more positive views toward condom use compared to those who have low levels of peer support and friends who do not report condom use. Greater peer support and peer condom use will predict high levels of condom use. A multiple linear regression will be used to measure how peer

support and peer condom use predict personal condom use. The independent variables are the single item questions on peer support and peer condom use and the dependent variable is the single item question on condom use.

CHAPTER 3

RESULTS

Analyses were conducted to examine the various hypotheses. For the purpose of this study, it should be noted *that higher scores on condom use indicate less use*, and lower scores mean higher condom use. The distributions of variable scores were examined for the various test statistics utilized below. No extreme outliers were noted, tests for normality were conducted, and for correlation and multiple regression applications, there was no evidence of multicollinearity.

Results for Hypothesis 1

An independent samples t-test was performed to assess the difference in condom use between those who do not believe a condom should be used while a woman is using birth control, and those who do believe a condom should be used even while a woman is using birth control. The t-test revealed a significant difference between these two groups on condom use $t(104) = 3.123, p < .01$. Those who do not believe a condom should be used ($M = 3.48, SD = 1.63$) were less likely to use condoms than those who do believe a condom should be used ($M = 2.29, SD = 1.53$). The results of the independent samples t-test are presented in Table 1.

Table 1. Results of t-test and Descriptive Statistics for Preconceived Belief by Condom Use

	Belief						95% CI for Mean Difference	t	df
	No Condom			Condom					
	<i>M</i>	<i>SD</i>	n	<i>M</i>	<i>SD</i>	n			
Condom Use	3.48	1.63	21	2.29	1.53	85	.432, 1.93	3.12*	104

Note. * $p < .01$.

In addition, a Pearson correlation was performed to assess the association between condom use and the degree to which a person believes a condom should be used even when a woman is using birth control. There was a significant association between this belief and condom use $r(109) = -.313, p < .01$. Those who do not believe a condom should be used when a woman is using birth control are significantly less likely to use a condom compared to those who do not hold this belief.

Results for Hypothesis 2

An independent samples t-test was performed to assess the difference in condom use between those who asked/knew a partner had been tested for STDs, and those who do not ask/know if their partner had an STD in the past. The t-test revealed no significant difference in condom use $t(104) = 1.254, n.s.$ Although non-significant, there was a trend in the mean values in the opposite direction than what was hypothesized; those who asked/knew ($M = 2.61, SD = 1.67$) were less likely to use a condom compared to those who did not ask or did not know ($M = 2.06, SD = 1.24$).

Results for Hypothesis 3

To test for differences in condom use self-efficacy between those who score high on assertive traits and those who score low, an independent samples t-test was performed. A median split was used to determine high versus low scores on the condom use self-efficacy scale and the sexual assertiveness scale. The t-test revealed there is a significant difference in condom use self-efficacy between those who score high on sexual assertiveness and those who score low on sexual assertiveness $t(108) = -3.684, p < .01$. Those who score high ($M = 105.57, SD = 15.33$) on the sexual assertiveness scale were significantly more likely to score high on the condom use self-efficacy scale compared to those who score low ($M = 93.60, SD = 17.91$) on the sexual assertiveness scale. The results of the independent samples t-test are presented in Table 2.

Table 2. Results of t-test and Descriptive Statistics for Sexual Assertiveness by Condom Use Self-Efficacy

	Sexual Assertiveness						95% CI for Mean Difference	t	df
	High			Low					
	M	SD	n	M	SD	n			
Condom Use Self- Efficacy	105.57	15.3	47	93.60	17.9	63	-18.4, -5.5	-3.68*	108

Note. * $p < .01$.

In addition, a correlation was also performed to examine the association between scores on the sexual assertiveness scale and the condom use self-efficacy scale. There was a significant correlation between sexual assertiveness

and self-efficacy $r(108) = .275, p < .01$. Higher scores on the sexual assertiveness scale were significantly associated with higher scores on the condom use self-efficacy scale.

Results for Hypothesis 4

A correlation was used to examine the association between knowledge of STDs and condom use. The correlation revealed no significant association between knowledge of STDs and condom use $r(104) = .002, n.s.$ The average score on the STD Knowledge Questionnaire was $M = 9.27$ with most people scoring a 7 out of 27.

Results for Hypothesis 5

A multiple regression analysis was used to assess the relationship between peer support and peer condom use with personal condom use. The regression demonstrated no significant linear association between the two predictors—peer support and peer condom use—with personal condom use, Model $F(2,101) = 2.57, n.s.$

However, an evaluation of the regression coefficients did show at least one predictor having a significant influence. Peer support was found to have an influence on personal condom use; greater peer support significantly predicted personal condom use, meaning those who reported greater peer support used condoms more frequently. The correlation matrix of the variables related to peer support and peer condom use on personal condom use is presented in Table 3, and the multiple regression results are presented in Table 4.

Table 3. Pearson Correlations for Peer Support and Peer Condom Use on Personal Condom Use

Variable	How often do you use a condom	Peer support	Peer condom use
How often do you use a condom	1	-.219*	-.102
Peer support		1	.373**
Peer condom use			1

Note. N=104. * $p < .05$. ** $p < .01$

Table 4. Summary of Standard Multiple Regression Analysis of Peer Support and Peer Condom Use Predicting Personal Condom Use: Regression Coefficients (Unstandardized and Standardized) and Significance Tests

Variable	B	β	SR
Peer support	-.384	-.210*	-.196
Peer condom use	-.042	-.023	-.022

Note. N=104. Multiple R = .22, $R^2 = .048$, Model F (2,101) = 2.57, n.s.; B = Unstandardized regression coefficient, β = Standardized regression coefficient, SR = semi-partial correlation coefficient.

* $p < .05$.

Exploratory Analyses

A correlation was used to assess the linear relationship between the individual item on condom use and the condom use self-efficacy scale. The correlation demonstrated there was a significant negative correlation between the individual item on condom use and the condom use self-efficacy scale, $r(106) = -.246, p < .05$. More specifically, higher scores on the condom use self-efficacy scale were significantly associated with higher levels of condom use due to

higher scores on the individual item of condom use signifying less use and lower scores signifying higher use.

For exploratory purposes, a 2 x 2 factorial ANOVA was used to determine if gender had any effect on sexual assertiveness and condom use self-efficacy. Sexual assertiveness scores had two levels (high/low). A median split was used to determine high scores from low scores. Gender consists of two levels; male and female. The main effect for sexual assertiveness on condom use self-efficacy indicated a significant difference between high ($M = 105.75$, $SD = 15.33$) and low scores ($M = 93.60$, $SD = 17.91$), $F(1,106) = 13.34$, $p < .01$. The main effect for gender on condom use self-efficacy also indicated a significant difference between males ($M = 92.30$, $SD = 18.23$) and females ($M = 101.97$, $SD = 16.78$) $F(1,106) = 7.19$, $p < .01$. The interaction between gender and sexual assertiveness on condom use self-efficacy did not demonstrate a significant result $F(1,106) = .256$, n.s. Overall, sexual assertiveness findings based on the 2 x 2 ANOVA confirm earlier findings, and women report overall greater condom use self-efficacy. However, there was not a significant interaction between assertiveness and gender in terms of their effects on condom use self-efficacy.

CHAPTER 4

DISCUSSION

This study examined the relationship between social and environmental factors related to condom use. More specifically, this study examined how preconceived beliefs, assertiveness, self-efficacy, knowledge of STDs, and peer support influence personal condom use. Overall, the results partially supported the hypotheses.

The first hypothesis was supported, suggesting the belief that people hold regarding condom use and birth control significantly influences personal condom use. This is consistent with previous studies focusing on Expectancy Theory (Derman & Cooper, 2000; LaBrie et al., 2002). In this case, participants rated the degree to which they agreed with the statement, "I believe condoms should always be used if a person my age has sex, even if the girl uses birth control pills." The findings of this study also support previous research conducted by Goldstein et al. (2013) to examine the effects of condom use and birth control. More specifically, those who were on, or their partner was on, birth control were significantly less likely to use a condom. This is consistent with the results from the current study. Those who have a preconceived belief that condoms should not be used while a woman is on birth control were significantly less likely to use a condom compared to their counterparts. A correlation was also conducted to

examine the degree to which participants agree with the statement as opposed to dichotomizing the statement with a “yes” or “no.” The correlation also shows a significant negative association between the degree to which one agrees with the statement and personal condom use. The negative association refers to lower scores on condom use signifying higher use and higher scores on the belief signifying agreement with the statement.

Contrary to predictions, knowing or asking a partner if they have been tested or had an STD in the past is not significantly related to condom use. In fact, the opposite was found such that those who have asked or knew their partner had been tested were less likely to wear a condom compared to those who did not know or did not ask, although this difference was not significant. Previous research has suggested that individuals can be deceived by hygiene and cleanliness of their partner (Kelly, 1994) which could explain why the results found in the current study do not support previous research (Derman & Cooper, 2000; Loue, 2006). There could also be a false sense of safety after asking if a partner had been tested such that individuals might ask if a partner had been tested, but might not inquire as to when their partner had been tested. In addition, follow up questions could be asked in the future to assess the degree to which individuals trust their partners since that has been found to affect condom use (Loue). While the results of this study do not correspond with previous research, it is possible to achieve results similar to past research by adding in some follow up questions.

The hypothesis that those who score high on assertive traits will also score high on self-efficacy was supported. This is consistent with previous research (Sickenius, 1997; Trobst et al., 2002) that supports the idea that assertive personality traits significantly influence an individual's ability to insist on using a condom. In addition, the findings support the idea of self-efficacy and condom use (Wulfert & Wan, 1993). People protect themselves to the degree they believe they can protect themselves. This finding is logical because a person who scores high on assertive traits would be much more able to insist on safe sex practices and much more likely to use a condom compared to those who score low on assertive traits and be much less likely to assert themselves or insist on safe sex practices. Extra measures were taken to examine the degree to which assertive traits and self-efficacy are related so as not to dichotomize the variables. There was a significant positive association between assertive traits and self-efficacy. Higher scores on sexual assertiveness were associated with higher scores on condom use self-efficacy.

Contrary to predictions, there was no effect on condom use based on knowledge of STDs. This finding was unexpected based on previous research (Lewis et al., 1997) that found that accurate knowledge of STDs impacts personal condom use. Upon examining the variables more closely, it was found that most participants scored very low on the questionnaire and there was almost no variability amongst the scores. That being said, there was not enough variance in the data to suggest any significant difference between knowledge and condom use. In addition, Lewis et al. (1997) suggest that individuals believe they

have more accurate knowledge than they really do. A follow up question could be added to assess the degree to which individuals believe they have reported accurate knowledge of STDs.

Finally, the results of the regression analysis were not as expected. Overall, there was no significant effect of peer support and peer condom use on personal condom use. This is in contrast to the research conducted by Wulfert and Wan (1993) which suggests that individuals who know their peers are using condoms are significantly more likely to use condoms themselves. However, peer support alone was found to be a significant predictor of personal condom use. Individuals who reported greater peer support also engaged in safe sex practices such as increased condom use compared to those who reported less peer support. The results of this portion coincide with previous research that suggests negative life events influence condom use (Wickrama et al., 2012). The negative life event in this case could be considered as low peer support. Therefore, individuals who report greater peer support could be considered as having fewer negative life events.

Strengths and Limitations of the Current Study

The present study examined several variables related to condom use pertaining to situations individuals encounter in real life. The results from this study can be applied to the fields of healthy psychology, counseling, and education programs. The information obtained from this study can be used to determine the appropriate populations to look at regarding education on condom use and STDs.

Looking at the outcome of beliefs on condom use with birth control, it can be suggested that more education is needed on how someone acquires an STD. Because the majority of the population in this study were young adults, it can be inferred that they did not have the knowledge or did not understand the risks of contracting an STD compared to older adults. Goldstein et al. (2013) found that those who were on birth control or started using birth control were significantly less likely to use a condom compared to those who are not using birth control. The data suggest that individuals use condoms more often to prevent pregnancy instead of protecting themselves from STDs. The results of this study support this research and would suggest that programs be implemented to help raise awareness of the prevalence of STDs and the means to contract them. This could increase condom use and help decrease the prevalence of STDs.

While no significant effect was found for knowledge of STDs and personal condom use, the results from this study can propose interventions aimed at more sexual education in the formative years. Based on the research conducted by Lewis et al. (1997), individuals believe they have more accurate knowledge than they really do. The results of this study support this idea since most scores were extremely low and not one participant answered every question correctly. Blake, Ledsky, Goodenow, and Sawyer (2003) found that schools with more programs focused on condom use were more likely to have students reporting decreased sexual activity thus decreasing the chance of spreading or contracting an STD.

In addition, the regression analysis was not significant. However, peer support alone was a significant predictor of condom use. Carlos et al. (2010)

found that individuals who reported lower perceived social support were significantly associated with engagement in unprotected sex. The results from the current study suggest the same. Greater peer support predicted higher condom use. Based on the results from this study as well as others, it can be suggested that programs, such as support groups, be implemented to help individuals form bonds that can encourage safe sex and increased condom use. This could then decrease the spread of STDs.

While this study suggests some valuable contributions to the literature on condom use and self-efficacy, there are some limitations that need to be discussed. This study focused on college populations which suggests a restricted age range for data collection. A younger population could restrict the variability in the data collection and limit generalizability to other populations. In addition, all participants were enrolled in an introductory psychology course and received credit for their participation. This could have influenced their responses based on education in this field. Additionally, the young age of the participants along with the extremely low scores on the STD Knowledge Questionnaire suggests that young adults have not received the education necessary for them to correctly identify how to obtain an STD. An older population, or a population with more variability, could be suggested for future studies on this matter.

Another limitation of this study could be that the measures are all self-report. Self-report measures can be questionable based on the type of information that is being obtained. A study conducted by Jaccard et al. (2004) suggests that self-report measures on condom use are less accurate for

individuals who engage in casual sex versus those who are monogamous or abstinent. This is an important factor pertaining to this study since the responses for how often an individual uses a condom could be influenced by engagement in casual sex versus monogamous relationships. While not strictly related to this, studies have shown that accurate memory of important events decreases overtime (Smith, Bibi, & Sheard, 2003). Termed “flashbulb memories,” participants were asked to describe the events of 9/11 and their personal experience during that time. Over a six-month period, responses were collected and results suggest that the accuracy of event details decreased overtime but the number of personal details actually increased. This can be related to the current study based on recalling sexual partners and condom use over the last year which could affect the accuracy of the responses.

Future Directions

Future research could focus on populations not restricted to college students to help test the generalizability of the results of the current study. In addition, future research could include follow up questions proposed earlier regarding the degree to which individuals trust their partners and the outcome of asking their partners questions on STD history. Future research could also be conducted to see how peer support groups or workshops influence condom use based on the results of this study showing that peer support predicts condom use. Further studies could examine the efficacy of these types of programs versus self-reported peer support on condom use.

The current study examined various factors related to condom use such as personality traits, self-efficacy, birth control, peer support, STD knowledge, and peer condom use. The findings from this study as well as others can be used to propose future research as well as the implementation of programs designed to help increase self-efficacy and condom use. Individuals protect themselves to the degree they believe they can which is why it is important to target programs that can help influence the use of condoms and decrease the spread of sexually transmitted diseases.

Final Thoughts

After reflecting on the conclusion of this study, I believe there is still more research that needs to be conducted on this topic related to condom use. The prevalence of STDs has grown over the years and few programs in school discuss topics like this because they are considered taboo in our society. I remember being in high school and having a very brief lecture on sexual behaviors. To be quite honest, I do not remember much of it. That being said, individuals in high school are not receiving the proper education on sexual behaviors and the outcome of those sexual behaviors. Some schools teach abstinence while others promote safe sex with a condom, but it seems few of these programs, at least to my knowledge, really discuss the consequences of engaging in unsafe sex.

Furthermore, I believe the idea of “political correctness” could have some influence on this education. Many people consider this topic offensive or distasteful, but I would argue it is quite the opposite. By ignoring or sugar coating

the reality of this issue, more individuals are contracting STDs and some of them are incurable. The prevalence of STDs is not declining, and in fact, it is increasing as the years go on. The introduction of support groups could also be a beneficial proposition to help increase condom use. If men and women feel like they have the support of their peers, then it will become something of the “norm” to use a condom. Peer pressure is known to influence decisions in young adults so a reasonable suggestion could be to target that area and promote awareness. Adolescents and young adults can exhibit poor judgment partially due to the frontal lobe not being fully developed, but judgment can also be influenced by peer support as shown in this study and others.

Expectancy theory states that people engage in the behaviors they expect to engage in. This might seem obvious, but if that is the case then why do people still engage in risky behaviors? I would suggest future research target this belief to help change the behaviors. Based on Cognitive Behavioral Therapy, one’s thoughts influence their feelings which influence their behaviors. To get to the root of the problem, we need to focus on that belief. This could also be related to inadequate education early on.

Regarding the outcome of the analyses on condom use and prior knowledge of a partner being tested or having an STD in the past, I wonder if the outcome we received is indicative of another variable we did not look at. I have already mentioned the degree to which an individual trusts their partner significantly influences condom use. One can infer the reason we received a result opposite of what was hypothesized is that the individuals who asked their

partner if they have been tested or had an STD in the past received an answer from their partner that they were clean. This could have influenced the lower condom use with individuals who asked or knew compared to those who did not ask or did not know. While the difference was not significant, it is still interesting to see lower condom use with those who have asked a partner versus those who did not ask.

They say “with age, comes wisdom,” but this does not help those who are young and uninformed. I do not think I can stress enough the importance of focusing on educating young adults on safe sex practices and the possible consequences of engaging in unsafe sex. I believe the implementation of better education programs and support groups in schools will increase condom use and decrease the spread of sexually transmitted diseases and hope that this research can have some kind of positive impact on the future of this topic.

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