11-2003

The effects of self-efficacy and locus of control on the sexual behaviors of college females

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THE EFFECTS OF SELF-EFFICACY AND LOCUS OF CONTROL ON THE SEXUAL BEHAVIORS OF COLLEGE FEMALES

A Thesis

Presented to the

Department of Education in Counseling

And the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

Of the Requirements for the Degree

Master's of Arts in Community Counseling

University of Nebraska at Omaha

By

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November, 2003

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THESIS ACCEPTANCE

Acceptance for the faculty of the Graduate College,
University of Nebraska, in partial fulfillment of the
Requirements for the degree Master of Arts,
University of Nebraska at Omaha.

Committee

Chairperson

Date 11/31/03

THE EFFECTS OF SELF-EFFICACY AND LOCUS OF CONTROL ON THE SEXUAL BEHAVIORS OF COLLEGE FEMALES

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This research examined the relationship between self-efficacy, locus of control, and sexual behaviors among college females. The research null hypotheses suggest that; 1) There is no correlation between self-efficacy and responsible sexual behaviors, and 2) There is no correlation between locus of control and responsible sexual behaviors. Questionnaire data were collected from 109 undergraduate females at a Midwestern University. The sample was primarily Caucasian (89%), heterosexual (96.3%), and single (73.4%) with a mean age of 23 years. An investigator designed questionnaire, adapted in part, from the Rotter Internal-External Locus of Control Scale (RIELC), The General Self-Efficacy Scale (GSE), and a sexual behavior survey previously designed to measure perceived ability to engage in safer sexual behaviors, was used to collect data for the study. Although results did suggest a high level of self-efficacy (M = 19.31) and internal locus of control (M = 3.4) for the sample, no significant relationships between self-efficacy and responsible sexual behaviors (r = .09, p >.05) was found. A negative significant correlation was found between locus of control and responsible sexual behaviors (r = -.29, p >.05) was found. In addition, a negative non-significant correlation was found between self-efficacy, and locus of control (r = -.13, p >.05), suggesting that

these two variables are largely independent. Study findings lay the groundwork for future research in psychosocial factors associated with responsible sexual behaviors.

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CHAPTER 1

Introduction

This study investigated the relationship between self-efficacy, locus of control, and responsible sexual behaviors among college females.

Significance

Sexual behaviors among college females have been the focus of numerous research studies including sexuality and gender (Jadack, Shibley-Hyde & Keller, 1995), health (Goldman & Harlow, 1993), culture (Gomez, & Marin, 1996), education (Ratliff-Crain, Donald & Dalton, 1999), and race (Seidman,& Rieder, 1994). Due to the increasing threat of sexually transmitted diseases (STD's), human immunodeficiency virus (HIV), and acquired immune deficiency (AIDS), the impetus behind a study with this type of focus is prevention of sexual risk taking and efficacy toward safer sex behavior. Statistics reflecting the health effects of unsafe sexual behavior support the need for focus on women.

Since 1985 the percentage of all AIDS cases reported among females has more than tripled, from 7% in 1985 to 25% in 1999. In 1999 the Centers for Disease Control reported that HIV/AIDS was the fifth leading cause of death for women between 25 and 44 years of age. In addition, women between the ages of 13 and 24 comprise nearly half (47%) of the reported AIDS cases within that age group (CDC, 2000). Research suggests this increase is due to more frequent transmission of AIDS from male to female rather than female to male (Amaro, 1995) and difficulty in women to negotiate safer sex practices with men because of the perceived power imbalance in sexual situations

(Cohen, Dent & Mackinnon, 1991). In addition, a study conducted by Joffe, et al., (1992) reported one in nine white college females having a STD while in college placing them at risk for physical and psychological harm.

The impact of sexual behavior on physical health can affect lifelong consequences such as unwanted pregnancy and contraction of STD's including death from HIV/AIDS. There is a necessity for research to address these issues for women. Sexual behavior can also have various negative consequences to emotional health (Paul & Hayes, 2002). Negative consequences can include but are not limited to regret, emotional ambivalence, and low self-esteem due to pressure to have unwanted sex. One of the greatest emotional health risks associated with unsafe sexual behavior is that of alcohol and substance misuse (Abbey, Thomson-Ross, McDuffie, & McAulsan, 1996). Alcohol consumption is a risk factor for sexual assault. Results from a national college survey found that 74% of perpetrators and 55% of victims of rape had been drinking alcohol prior to the assault (Koss, 1988). There is need for a greater focus on safe-sex behaviors due to physical and emotional health consequences.

In addition to a focus on physical health, past prevention efforts were based on educating individuals about sexually transmitted disease and AIDS (Philipson, Posner & Wright, 1997). The researchers state that although most people know the risk of AIDS, education based programs have not increased safe-sex behaviors in the general population. Education-based interventions provide knowledge and resources, yet that which is acquired has not translated to behavior change (Schinke, Gordon, & Weston, 1990; McKay, 1993). Proposed reasons for this are that adolescents and young adults

underestimate the risk, feel a lack of vulnerability and do not consider negative outcomes regarding sexual behavior (DiClemente et al., 1992). One particular area of interest for sexual education programs is on college campuses. The general population's knowledge of HIV/AIDS is high, but has not been found to predict changes in risk-taking behaviors (Bellingham & Gillies, 1993; Rimberg and Lewis, 1994). Recognizing the need for more effective models of prevention, recent studies have included psychosocial aspects of risky sexual behavior. These models include the Theory of Reasoned Action, which identifies social support as an indicator of planned behavior (Ratliff-Crain, Donald, & Dalton, 1999), and the Health Belief Model in which perceived susceptibility, severity, and benefits are positively correlated with preventative behaviors (Yep, 1993).

A key component within the Health Belief Model is Bandura's concept of self-efficacy, the belief that one has the ability to produce successful outcomes (Bandura, 1997). Self-efficacy alone has demonstrated strength as a predictor of behavior, which supports its importance in research and intervention models (Strecher, DeVellis, Becker, & Rosenstock, 1986). Regarding sexual behavior in general, self-efficacy has been found to be a predictor of intentions to use condoms (Terry, 1993; Walter et al., 1993), frequency of condom and contraceptive use (Heinrich, 1993; Mahoney, Thombs, &Ford, 1995; Wulfert & Wan, 1993), refusing intercourse unless contraception is used (Kasen, Vaughan, & Walter, 1992; Zimmerman, Sprecher, Langer & Holloway, 1995), and communication about safe sex (Mahoney et al., 1995; Malow, Corrigan, Cunningham, West, & Pena, 1993). This model encourages partners to accept responsibility for their actions and strengthen their control over sexual choices.

Locus of control has its foundations in social learning theory and is used as an explanatory tool for behavior (Rotter, 1966). It is measured on a dichotomous scale in which those with internal locus of control believe that consequences are a result of individual action whereas those with external locus of control believe that consequences are due to fate, chance, or powerful others. Findings from various research suggests those with internal locus of control tend to assume responsibility over their life choices (Taylor, 1982), and are better adjusted emotionally (Rotter, 1966).

Confidence that individuals have control over their lifestyle may have great impact on safer sex behavior. Nowicki (1973) found as individuals move into adolescence, locus of control becomes more internal. This sense of control parallels the dilemma described during Erik Erikson's developmental stage, identity versus role confusion. Erikson argued that, in order for adolescents to achieve a mature sexual identity, they must reexamine their identities and roles in order to achieve a personal sense of self (Bee, 1994). It is during this period that adolescents turn their focus internally in order to establish a personally acceptable identity. Formal sexual education tends to begin in early adolescence, yet most programs do not focus on individual control over sexual decision-making. Recent research suggests that locus of control is an important characteristic to consider in prevention efforts (Rosenthal et al., 2002).

Self-efficacy and locus of control both have foundations in social learning theory, yet they are different concepts. The theory, developed by Albert Bandura states that an individual learns through reinforcement (Bee, 1994). Specific to self-efficacy and locus of control are intrinsic reinforcements. These reinforcements are internal to the

individual. The sense of pride one feels in accomplishing a task reinforces the belief that one can accomplish the task again. This belief or self-efficacy is not dependent on external reinforcement, but internal rewards. Leone and Burns (2000) summarize the interconnectedness and independence of the two stating; "Logically, locus of control and self-efficacy are independent. Individuals may believe that their outcomes depend on their actions, but they may not think they have the skills to successfully enact the behavior in question. Alternatively, individuals may strongly believe that they possess the necessary skills to perform some action, yet they may believe that their words and actions typically have little effect on their outcomes" (p.65). The implications of this statement, in the realm of sexual behaviors, may help to explain the discrepancy between understanding the risks of unsafe sex, safe sex decision-making, and safe sex practices.

Purpose

Researchers have explained the impact that risky sexual behaviors have on physical health in college females (Joffe, et al., 1992; Ratliff-Crain, Donald & Dalton, 1999; Paul, McManus & Hayes, 2000) yet there is little investigation on the impact of risky sexual behaviors and emotional health. In addition, significant research on the effects of self-efficacy and sexual decision-making has found it predicts intent to engage in safer sexual behaviors (Cecil & Pinkerton, 2000). Although locus of control and self-efficacy are embedded within social learning theory little is known about their combined effects on responsible sexual behaviors. There is a need for research on the relationship between self-efficacy, locus of control and responsible sexual behaviors among college

females in order to assist women in making positive decisions and acting on those decisions toward greater emotional and physical health.

Hypotheses

1. There is no correlation between self-efficacy and responsible sexual behaviors among college females.
2. There is no correlation between locus of control and responsible sexual behaviors among college females.

Research Question

The two null hypotheses tested addressed the question: Is there a correlation between self-efficacy and locus of control with responsible sexual behaviors?

Definitions

1. Self-Efficacy is the belief that one can successfully execute the actions needed to produce a desired outcome (Bandura, 1977).
2. Individuals with an internal locus of control believe that reinforcements are a result of personal effort (Marks, 1998).
3. Individuals with an external locus of control believe that reinforcements occur as a result of forces outside personal control (Marks, 1998).
4. Responsible sexual behaviors – positive attitudes condom use, resistance of substance use in sexual relations, fewer number of sexual partners, the ability to say no to unwanted sex and open communication with sexual partners (Campell, Preplau, & DeBro, 1992; Sacco, Rickman, Thompson, Levine, & Reed, 1993, & Weinstock, Lindan, Bolan, Kegeles, & Hearst, 1993).

Importance and Scope of the Study

This study examined the relationship between high self-efficacy, internal locus of control, and responsible sexual behaviors among college females. Such a relationship will allow counselors to be better prepared to identify individuals at risk for contracting sexually transmitted diseases and for emotional difficulties due to poor sexual decision-making. Sex education curriculums generally focus on the belief that knowledge about human reproduction, sexual behavior, and contraception will encourage more informed and responsible sexual decision-making. Due in part to the vast research that indicates sexual education does not impact sexual behavior, more recent developers are acknowledging the need for a more holistic approach including information about and skills for interpersonal relationships (Erhardt, 1996). The results from this study can be used to create and establish effective methods for prevention in addition to providing tools for responsible, personal sexual decision-making.

Summary

Chapter one serves to familiarize the reader with certain background issues of sexual activity among college females and how they relate to emotional and physical health. The importance of research in the area of psychosocial predictors of responsible sexual behavior is also addressed. Chapter one also includes the following topics: introduction, significance, purpose of the study, hypotheses, and importance of the study.

CHAPTER 2

Review of the Literature

Chapter two focuses on the literature review. The chapter addresses self-efficacy, locus of control, and their relationship to responsible sexual behaviors. The topics examined in the literature review help to establish the importance of further research in this area.

Self-Efficacy

Self-efficacy is an important variable in numerous studies on psychosocial aspects of sexual behavior. The concept was introduced by Albert Bandura within the framework of social learning theory (Bandura, 1977). "Self-efficacy, is defined as the belief that one can successfully execute the actions needed to produce a desired outcome, and is an important determinant of whether a person engages in a specific behavior. People avoid those activities that they believe exceed their capabilities and perform those acts they feel are within their realm of capabilities" (Cecil & Pinkerton, 2000, p. 1243). Levels of self-efficacy may therefore be used as a measure of a person's belief of his/her capabilities to engage in safe-sex behavior, thus, supporting self-efficacy as a measure in this study.

In relation to a particular task, self-efficacy varies along three dimensions: Magnitude, strength, and generality (Bandura, 1977). Magnitude indicates the task's level of difficulty. It is what an individual believes he or she can accomplish. As task difficulty increases, so does magnitude of self-efficacy. For example, a person may view purchasing condoms to have a low level of difficulty, yet may find discussing past sexual

histories with a partner to have a high level of difficulty. The ability to complete a difficult task increases magnitude of self-efficacy.

Strength implies the person's level of confidence in performing a task. It is demonstrated in how much a person believes in his or her abilities regardless of the difficulty of the task (Rossetti, 1999). Those who possess strength of self-efficacy are persistent even when frustrated or challenged.

Generality is the ability to generalize efficacy expectations from one task to similar new tasks. Some experiences create more general self-efficacy, while others create task specific self-efficacy. The ability to discuss past sexual histories with not only a long-term sexual partner, but with every sexual partner indicates generality of self-efficacy.

Magnitude, strength and generality affect self-efficacy in ways that are specific yet complimentary. Both separate and combined, each serve to either increase or diminish efficacy expectations. Therefore, a person's self-efficacy is proportional to the levels of the three dimensions. Whereas the dimensions have a direct impact on an individual's level of self-efficacy, efficacy expectations in turn have a direct impact on human functioning.

Human functioning is regulated by self-efficacy in three areas: cognition, motivation, and emotion (Bandura, 1997). Cognitively, those with high self-efficacy are more likely to set high goals. They concentrate on success of actions rather than dwell on possible failure. People with high self-efficacy have stronger motivation due to the belief in goal attainment. Emotion is regulated in several ways by increased self-efficacy. First,

stress is better reduced by the ability to create a less threatening environment. Second, people who believe they can manage threats are less affected by them. Finally, coping skills are stronger in those individuals with high self-efficacy.

In contrast, "People with a low sense of self-efficacy avoid difficult tasks. They have low aspirations and weak commitments to goals. They turn inward on their self-doubts instead of thinking about how to perform successfully. When faced with difficult tasks, they dwell on obstacles, the consequences of failure, and their personal deficiencies. Failure makes them lose faith in themselves because they blame their own inadequacies. They slacken or give up in the face of difficulty, recover slowly from setbacks and easily fall victim to stress and depression" (Bandura, 1997, p. 5).

People with high self-efficacy maintain personal strength when faced with difficult tasks, and can generalize their confidence to other situations. Self-efficacy positively impacts human functioning cognitively, motivationally, and affectively. Therefore, the research would suggest that those with high self-efficacy tend to make personal decisions that are congruent with their beliefs and maintain greater mental health. Enhanced emotional functioning combined with the efficacy that desired outcomes can be achieved suggest that actions related to sexual behavior will be in accordance with an effort toward emotional and physical health.

Self-Efficacy in College Women

Levels of self-efficacy influence women's sexual functioning in the same manner they do other areas of life. The effects are illustrated in several research studies (Gomez & Marin, 1996; Moore, Harrison, Kay, Deren & Doll, 1995). Cecil and Pinkerton (2000),

found that college women reported higher levels of self-efficacy regarding safer sex negotiation and refusal skills yet find condom-use activities difficult. One explanation for lowered condom use is the relationship power imbalance. "Many women are not willing to discuss condom use if they anticipate negative reactions from their male partners" (p. 1258). The lack of confidence in condom negotiation carries consequences both physically (ie. sexually transmitted disease, pregnancy) and emotionally (ie. lowered self-esteem and lowered feelings of control over personal decisions.) It is important to note the study revealed high levels of self-efficacy in regard to both safe sex negotiation and refusal skills when communicating with partners.

The ability to communicate with a sexual partner is central to a woman's physical and emotional health, and is influenced by self-efficacy. "The impact of communication regarding sexuality and the negotiation of safer sex has been largely ignored, yet there is evidence that this may be one of the most important variables in predicting condom use among heterosexual men and women" (Amaro, 1995, p. 441). Research in this area has been on condom usage with fewer studies examining communication of sexual activity other than prevention (Wyatt & Riederle, 1994). Communication is critical not only in negotiation of condom usage, but in expression of physical and emotional needs. Although women's verbal expression of sexual needs has become more acceptable, it is not socially desirable (Wyatt & Riederle, 1994). Reliance on non-verbal cues continues to be the preferred method to communicate sexual arousal. Therefore, women may not feel comfortable vocalizing personal desires or needs with a sexual partner. This research indicates that women are still socialized to be a passive partner. However, sexual

satisfaction appears to be correlated with initiating and directly expressing one's sexuality (Wyatt & Riederle, 1994). In order to directly communicate their needs, women must have the efficacy to do so.

Self-efficacy affects women's perceived ability to get their needs met in addition to actual behavior. A study conducted by Zimmerman, Sprecher, Langer, and Holloway (1995) found that "Generalized self-efficacy had a significant and positive effect on one's ability to say no to unwanted sex, especially for females" (p. 396). Those who believed that they were likely to succeed in general tasks were more likely to envision success specifically in relation to refusal of sex.

Locus of Control

A less researched concept central to the study of sexual behavior is locus of control. Locus of control is another concept with foundations in social learning theory (Rotter, 1966) and is based on generalized expectancies concerning behavior. People who are of an internal locus of control "...believe for the most part that the rewards and punishments they experience vary as a function of their own actions" (Leoné & Burns, 2000, p. 64). People with external locus of control generally believe the rewards and punishments they incur are the result of chance or powerful others. In other words, internals tend more than externals to perceive their behavior as instrumental in achievement of desired goals and avoidance of negative consequences (Leone & Burns, 2000).

Taylor (1982), described the differences between internals and externals as individuals with an internal locus of control tend to view their actions as having more

control over and responsibility for their lives whereas individuals with an external locus of control will attribute their actions to outside events and as a result, feel powerless over their lives. In addition, those with internal locus of control are better adjusted emotionally than those who view their outcomes as contingent on outside forces (Rotter, 1966). A sense of control in one's life leads to emotional well-being and stability. When an individual accepts responsibility for the consequences of their behavior, greater control is attained. This control and responsibility encourage further personal reinforcements for behavior and leads to less influence by outside sources.

Locus of Control and Susceptibility to Influence

Consistent with the concept of locus of control and personal responsibility, it has been found that internals are more independent and rely on their own judgment rather than the opinions of other people (Rotter, 1966). They appear to be less influenced by other's persuasion, both overtly and subtly, than externals. Herbert Lefcourt (1982), states that "When a person believes he is the responsible agent or source of his own life's fortunes, he will resist influence attempts that aim to bypass his own sense of moral justice, and will only respond to those appeals that address themselves to his own beliefs and values" (p. 59). Consequently, a person with an internal locus of control will be better able to maintain behaviors consistent with his or her personal beliefs even when outside pressure is exerted to do otherwise.

Motivation is also positively influenced by internal locus of control. Kenneth Galbraith (1993), explains within the concept of attribution theory, the motivation to achieve success is the result of an individual's perception that he or she can complete a

task. Those with internal locus of control view the success as a result of their own behavior versus that of chance or luck (Galbraith, 1993). On the other hand, those individuals who do not attribute success to personal behavior or avoid responsibility for outcomes are in danger of learned helplessness. This is characterized by low self-concept. Learned helplessness can result in the tendency for people to give up in the face of opposition or believed failure.

In addition, internal locus of control has a relationship with assertiveness (Davis & Phares, 1967; Phares, 1968; and Seeman & Evans, 1962). These studies found that those with internal locus of control sought more information regarding health (Seeman & Evans, 1962), requested more information in ambiguous situations (Davis & Phares, 1967), and were more effective at using obtained information than those with external locus of control (Phares, 1968). Another study conducted by Cooley and Nowicki found higher levels of assertiveness among internally locused undergraduate students. The sample examined was small, consisting of 55 (29 male, 26 female) undergraduates at a private southeastern college.

Upon investigating the differences between males and females, the correlation between internal locus of control existed for males ($r = -.32$, $p < .02$), but not for females ($r = -.09$, $p > .65$) (Cooley & Nowicki, 1984). The authors stated the lack of assertiveness of internal undergraduate females could be explained by the social belief that assertive behavior is not valued in females. This supports the idea that internal locus of control is important for females in getting personal needs met, but not necessarily sufficient for ability in expressing these personal needs. The disparity between internal locus of control

and assertiveness, according to gender differences, would appear to have specific implications in regard to the sexual behaviors of undergraduate females.

Locus of Control and Sexual Behaviors

The ability to assert one's beliefs and take personal responsibility for one's actions has implications for sexual behavior among college females. In relation to sexual activity, internal locus of control would suggest personal responsibility for sexual decision-making. Research studies on sexual behavior however, imply that many college students, including females, are operating with an external locus of control by allowing others to make and be responsible for their sexual decisions. Costanzo and Shaw (1966) state that "Group pressure is less an issue than individual willingness to conform to group attitudes and norms, especially for females. Thus it appears that dependence or over-reliance on other's advice and expectations is associated with susceptibility to peer norms and influence" (p. 972). A survey conducted by Wyatt and Riederle (1994) on women's sexual decision-making found that 52% of 140 respondents claimed peer or partner pressure as reasons for engaging in first intercourse before the age of 18. Therefore, over half of first sexual experiences were not attributed to readiness for sex but to outside influences. External locus of control could be a factor in the respondent's tendency to engage in sexual activity.

One aspect of internal and external locus of control is the outside influence of alcohol use on sexual activity. Research has found a strong association between alcohol use and casual sexual behavior (Paul, McManus & Hayes, 2000). Some researchers argue that alcohol's role in sexual activity, especially for women, is to reduce inhibitions (Leigh

& Aramburu, 1996). Alcohol may also serve as an excuse for individuals to behave out of character and later deny accountability due to intoxication. A study conducted by Sadava and Pak (1993) found that greater alcohol consumption and frequency of use were related to higher stress levels, greater external locus of control, social support for drinking, and more opportunity for heavy drinking in social situations (Sadava & Pak, 1993). The attribution of behavior to alcohol can be seen as a characteristic of people with external locus of control. In addition, studies conducted by Strickland (1978) found those with internal locus of control to be more likely to assume responsibility for health behaviors including gaining knowledge of healthy behaviors, and attempts to improve physical and psychological functioning.

The research findings on young adult's sexual behavior point to a function of external locus of control. Responsibility for casual sexual activity is often influence by others and alcohol (Paul, McManus & Hayes, 2000). People with greater internal locus of control would be more likely to approach sexual behavior in terms of personal responsibility.

Self-efficacy, Locus of Control, and Sexual Activity

The purpose of the research on self-efficacy, locus of control, and sexual behaviors is to impart knowledge and provide prevention efforts to college women. The current sexual environment on college campuses necessitate this study. Of concern to this author is the high-risk behaviors engaged in by young adults including: large numbers of sexual partners, alcohol consumption before sexual activity, and unprotected sex as stated in an article by Desiderato and Crawford (1995).

In summary, high-risk sexual activity is on the rise, especially on college campuses where sexual permissiveness is the norm (Maticka-Tyndale, 1991; Chng & Moore, 1994). Reinisch, Hill, Sanders, & Ziemba-Davis, (1995) found that seventy-five to eighty percent of college students are sexually active. One-third of those students who are sexually active report intercourse with five or more partners over their lifetime. Consequences of risky sexual activity include: sexually transmitted diseases and HIV (Jadack, et al., 1995; Gomez & Marin, 1996; Ratliff-Crain, et al., 1999; Joffe, et al., 1992), regret and shame (Paul & Hayes, 2002), and increased probability of sexual assault (Abbey, et al., 1996). The combination of self-efficacy and locus of control can have far reaching effects on risky sexual behaviors among college females. High levels of self-efficacy are associated with greater ability to communicate and negotiate safer sex practices (Cecil & Pinkerton, 2000). Internal locus of control is characterized by the belief that consequences are the result of personal influence (Rotter, 1966). Therefore, a sense of control as well as self-efficacy will significantly impact responsible sexual decision-making due to the individual belief in possessing the skills to engage in safe sex behavior and the belief that risky sex behavior carries consequences in regard to physical and emotional health.

CHAPTER 3

Methodology

Chapter three will describe the methods that were used in this study. The main topics that are covered in this chapter are the design, sample/settings, instruments, procedures, and data analysis.

Design

This study used a descriptive, correlational survey design due to the observational nature of the design in that no variables were manipulated. Instead, variables were measured to determine a relationship with one another.

Sample/Settings

The sample consisted of 109 female undergraduate students who were attending the University of Nebraska at Omaha. Questionnaires were distributed to 230 undergraduate females. A total of 120 surveys were returned for a 52% return rate. Eleven of the questionnaires were not completed and therefore not included in the study. As a result, 109 females comprised the final sample for an overall response rate of 47%. The age of legal consent is 19 years, therefore students who were under 19 years of age were not asked to participate in the study. The age restriction may have affected the ability to participate and subsequently affected the response rate of participants. Subjects were selected from seven introductory courses, based on the willingness of professors to include their students in the sample, within a Midwestern University. The disciplines subjects were drawn from include: Education and the Social Sciences.

Instruments

The instrument used to collect data for this study consisted of a 47 item, investigator designed questionnaire. The questionnaire was adapted, in part, from the Rotter Internal-External Locus of Control Scale (RIELC), (Rotter, 1966) The General Self-Efficacy Scale (GSE), (Jerusalem & Schwarzer, 1992), and a sexual behavior self-efficacy survey designed by Heather Cecil and Steven Pinkerton (2000). In order to reduce the length of the survey, selected questions were taken from each instrument. Six questions out of ten were taken from the GSE, eleven questions out of 23 were taken from the RIELC, and 20 questions out of 22 were adapted from the sexual behavior survey. Questions selected from the GSE and RIELC were based on relevance to setting goals, problem solving, and questions that involve taking action versus possessing an opinion. Questions omitted from the sexual behavior survey were repetitive in nature. For example two separate questions asked for ability to refuse intercourse after drinking alcohol and after smoking marijuana. These questions were combined in the adapted survey. Permission was obtained from the publishers to adapt from these scales.

Pilot Study Group

The developed instrument was field tested on a group (N=14) of undergraduate females in an introductory Social Work course. The purpose of the pilot study was to obtain a measure of reliability on the developed instrument and to receive feedback on the design/nature of the survey. Analysis of the questionnaire indicated high internal reliability (Cronbach's alpha = .89).

One week prior to the pilot study, the researcher attended the class to provide a brief explanation of the purpose of the pilot study, distribute consent forms to participants and encourage discussion of their participation in the pilot study with family, friends, etc. before participating. Time was allowed for questions and subjects were informed they may also contact the researcher with questions at any time prior to or after participation in the study.

The researcher re-visited the class approximately one week later to conduct the research. In order to maintain strict confidentiality, it was requested that no consent forms be signed and returned to the researcher. Instead students were informed that participation in the study implied their consent. Subjects then received a second copy of the consent form, "The Rights of Research Participants", and the sexual behavior survey, provided in an unsealed manila envelope. Participants were given a brief explanation of the purpose of the study and time was allowed for questions. The students were then instructed to read each question carefully and to circle the appropriate response that best represented their feelings about themselves in regard to the questions. In addition the researcher instructed students to provide feedback on the content of the survey by writing comments in the margin of the form. Once the survey was completed, subjects were instructed to place them back in the manila envelope, seal the envelope, and place it in a provided box at the front of the room. To ensure confidentiality of subjects, the researcher waited outside the room until all surveys were handed in. Completed questionnaires were kept in the possession of the secondary researcher in a locked cabinet and were not accessible to anyone other than the primary and secondary investigators.

Prior to field testing, three Counselor Education faculty were asked to review the survey and provide feedback. Faculty and students commented on the absolute nature of the items pertaining to locus of control. It was stated that each statement could apply based on different situations. Faculty suggested revision of the locus of control section to state the position in more general terms. For example, rather than the original statement "People's misfortunes result from the mistakes they make", revise it to state "People's misfortunes generally result from the mistakes they make. The investigator made the decision to leave the locus of control questions unaltered and discuss the possible effects the nature of the questions may have on the locus of control measure.

Demographics

Demographic information was obtained using an investigator-developed questionnaire. Questions measured age, marital status, sexual activity, race, grade point average, current major, level of sexual education, current living situation, sexual orientation, and number of sexual partners within the last year.

Table 1 summarizes the sample's demographic information. The table provides frequencies and percents for each characteristic. As can be seen in the table, the majority of subjects were single with a mean age of 23. The table shows a high percentage of the sample was Caucasian, comprising 89% of the subjects surveyed. From an educational standpoint, the majority of females maintained a grade point average of 3.0 or higher and most received formal sexual education. The majority of women were sexually active, heterosexual, and reported having a total of 1-2 partners within the past twelve months.

TABLE 1: Sample Demographic Information (n=109)

Variable	Frequency	Percent
Marital Status		
Single	80	73.4
Married	25	22.9
Divorced	2	1.8
Widowed	1	1.0
Missing	1	1.0
Age		
19-24	93	85.3
25-30	6	5.5
31-36	5	4.5
37-43	5	4.5
Ethnicity		
Caucasian	97	89.0
African American	7	6.4
Asian	1	1.0
Hispanic	4	3.7
GPA		
3.5-4.0	36	33.0
3.0-3.49	45	41.3

2.5-2.99	22	20.2
1.5-2.49	6	5.5
Sexual Education		
Yes	93	85.3
No	16	14.7
Sexual Orientation		
Heterosexual	105	96.3
Homosexual	2	1.8
Bisexual	1	1.0
Missing	1	1.0
Sexually Active		
Yes	94	86.2
No	15	13.8
Number of Partners		
0	12	11.0
1-2	80	73.4
3-5	11	10.1
6-8	5	4.5
Missing	1	1.0

Locus of Control

Locus of Control was measured by eleven questions taken from the Rotter Internal-External Locus of Control Scale, which assesses a person's attributions of

is asked to choose the response most congruent with her own personal belief from the following two options: "In the long run people get the respect they deserve in this world" and "Unfortunately, an individual's worth often passes unrecognized no matter how hard he/she tries." The RIELC consists of a 23-item forced choice questionnaire. For each item the subject was asked to choose between an external or internal belief. It was scored in the external direction, therefore each external answer is given one point. The higher the score, the greater the individual belief that consequences incurred are due to fate, chance, or powerful others. The total sum of responses for the eleven items resulted in a score ranging from 0 (internal locus of control) to 11 (external locus of control). This instrument was developed primarily with college students. Research has shown the scale to have a test-retest reliability of .72 and good discriminant validity demonstrated by low correlations with intelligence and social desirability (Rolison, 2002).

Table 2 summarizes the internal versus external locus of control scores for the research sample. Since the scores can range between 0-11, the 3.4 average total score reflects an internal locus of control in this sample.

TABLE 2: Locus of Control Scores (n = 109)

Instrument	Range	Mean	SD
LOC	0-11	3.4	2.05

Self-Efficacy

Self-Efficacy was measured by six questions taken from the General Self-Efficacy Scale. It is a 10-item questionnaire that measures general sense of perceived self-efficacy

with the aim of predicting coping behaviors and adaptation to stressful situations (Jerusalem & Schwarzer, 1992). Example questions include "I can always manage to solve difficult problems if I try hard enough" and "I can remain calm when facing difficulties because I can rely on my coping skills." Responses were made on a four-point Likert scale. The sum of responses for the six items resulted in a complete score ranging from 6 (low general sefl-efficacy) to 24 (high levels of general self-efficacy). The General Self-Efficacy Scale has shown appropriate reliability. In samples from 23 nations, Cronbachs alphas ranged from .76 to .90 (Schwarzer & Born, 1997). Correlational criterion-related validity is documented in several research studies where positive coefficients were found with stable emotions (r = .49, p <.05). (Schwarzer & Fuchs, 1996).

Table 3 summarizes the self-efficacy scores for the research sample. Since the scores can range between 6-24, the 19.31 average total score reflects a high level of self-efficacy in this sample.

TABLE 3: Self-Efficacy Scores (n = 109)

Instrument	Range	Mean	SD
GSE	6-24	19.31	1.84

Responsible Sexual Behaviors

Responsible sexual behaviors were measured using an investigator-designed questionnaire adapted from a survey created to determine perceived self-efficacy in sexual behaviors (Cecil & Pinkerton, 2000). Item 1a.-1e. assessed the ability to refuse

sexual intercourse. An example question is "Do you refuse sexual intercourse with someone whom you have already had sexual intercourse?" Items 2a.-2d. assessed the level of communication in regard to prevention of AIDS/HIV and STD's with the individual's partner(s). For example "Do you discuss preventing AIDS or sexually transmitted diseases or pregnancy with someone you are having a casual relationship with?" Item 3 assessed whether an individual has been tested for AIDS/HIV or STD's. Item 4 assessed communication regarding past sexual partners. Items 5a.-5d. assessed condom use in various situations. Such questions included "Do you use a condom/dental dam during sexual/oral intercourse with someone you just met?" Items 6 assessed frequency of condom use while under the influence of drugs or alcohol. Item 7 assessed insistence on condom use when there is outside pressure to engage in intercourse without a condom. Items 8-9 assessed communication of sexual needs during sexual intercourse and at times other than sexual intercourse. Item 10 assessed overall level of intimacy with the individual's sexual partner(s). Items were scored on a 4-point Likert scale with an additional null option of "not applicable" for questions that did not apply to the individual. The scores for each question ranged from 0 (never) to 4 (always). Due to the option of a null response in regards to questions of a sexual nature, the total score for each individual was averaged. As a result, the data was analyzed using a sexual behavior score range of 0-4. A higher score indicated higher levels of responsible sexual behavior.

Table 4 summarizes the sexual behavior scores for the research sample. Since the total scale scores can range between 0-4, the 3.118 average total score reflects high levels of responsible sexual behavior in this sample.

TABLE 4: Sexual Behavior Scores (n = 109)

Instrument	Range	Mean	SD
Sexual Behaviors	0-4	3.118	.486

Procedures

Prior to soliciting individuals to participate in this study, the researcher submitted an Institutional Review Board (IRB) application for Non-Therapeutic Research and received approval number 254-03-FB from the University of Nebraska Medical Center. Seven introductory classes were selected for female undergraduate participation. Permission was obtained from the professors of these classes to use students as subjects. Due to professor preference, some classes were visited at the beginning of the session while other classes were visited at the end of session.

One week prior to the study, the researcher attended each class to provide a brief explanation of the purpose of the study, distribute consent forms to participants and encourage discussion of their participation in the study with family, friends, etc. before participating in the study. Time was allowed for questions and subjects were informed they may also contact the researcher with questions at any time prior to or after participation in the study.

The researcher re-visited each class approximately one week later to conduct the research. In order to maintain strict confidentiality, it was requested that no consent forms be signed and returned to the researcher. Instead students were informed that participation in the study implied their consent. Subjects then received a second copy of the consent form, "The Rights of Research Participants", and the sexual behavior survey,

provided in an unsealed manila envelope. Participants were given a brief explanation of the purpose of the study and time was allowed for questions. The students were then instructed to read each question carefully and to circle the appropriate response that best represented their feelings about themselves in regard to the questions. Once the survey was completed, subjects were instructed to place them back in the manila envelope, seal the envelope, and place it in a provided box at the front of the room. To ensure confidentiality of subjects, the researcher waited outside the room until all surveys were handed in. Completed questionnaires were kept in the possession of the secondary researcher in a locked cabinet and were not accessible to anyone other than the primary and secondary investigators.

Data Analysis

All data were entered into SPSS files. Descriptive statistics (means, frequencies, percent, ranges) were run to clean the data sets and identify any missing values. The two hypotheses that were tested addressed the question: Is there a correlation between self-efficacy and locus of control with responsible sexual behaviors? The appropriate analysis to address this question was a Pearson Product Moment Correlation due to the analysis of interval or ratio data.

CHAPTER 4

Results

Chapter four describes the results found from the study. The main topics that are covered in this chapter are the sample, self-efficacy results, locus of control results, sexual behavior results, intercorrelations between the dependent variables, analysis of the research question, and additional analyses.

The primary goal of this study was to investigate the relationship between self-efficacy, locus of control, and responsible sexual behaviors among college females.

Intercorrelations Between the Dependent Variables

A negative non-significant correlation was found between external locus of control and high self-efficacy ($\underline{r} = -.13$, $\underline{p} > .05$). This suggests that these two variables are largely independent.

Analysis of the Research Question

Hypothesis #1: There is no correlation between self-efficacy and responsible sexual behaviors among college females.

Pearson product moment correlations were calculated between the self-efficacy total scores and sexual behavior total scores. There was a non-significant correlation between self-efficacy and sexual behaviors ($\underline{r} = .09$, $\underline{p} > .05$). Thus, the null hypothesis was accepted.

Hypothesis #2: There is no relationship between locus of control and responsible sexual behaviors among college females.

Internal locus of control among females were correlated with displaying responsible sexual behaviors (r = -.15, p <.05), where females with internal locus of control displayed more responsible sexual behaviors. Thus, the null hypothesis was rejected.

Additional Analyses

Additional analyses were conducted exploring the possibility of different demographic characteristic's effects on the dependent variables. When split by marital status (whereas the category of single included widowed and divorced), there was a significant negative correlation between locus of control and responsible sexual behaviors for married females (r = -..27, p <.05), thus those with more internal locus of control displayed increased responsible sexual behaviors. In addition, a significant negative correlation was found between locus of control and sexual behaviors among single, sexually active females (r = -.29, p < .05), thus those with more internal locus of control displayed increased responsible sexual behaviors. No significant correlations were found between self-efficacy and responsible sexual behaviors for married females (r = -.14, p >.05) or single females (r = .12, p>.05).

To test the meaningful difference between the mean score on the sexual behavior questionnaire and female grade point averages, a one-way analysis of variance (ANOVA) was calculated to ascertain differences between grade point averages and the three variables measured by the instrument. Table 5 displays the ANOVA summary table.

The data in the ANOVA summary table shows that there was not a significant interaction between grade point average and self-efficacy, locus of control, or responsible sexual behaviors.

TABLE 5: One-Way ANOVA Summary Table

	Mean Squares	df	F	Sig.
GPA x LOC	6.903	3	1.672	.178
GPA x Self-Efficacy	1.871	3	.543	.654
GPA x Sexual Behavior	0.224	3	.945	.422

*p <.05

To test the meaningful difference between the mean score on the sexual behavior questionnaire and number of partners, a one-way ANOVA was calculated to ascertain differences between number of sexual partners and the three variables measured by the instrument. Table 6 displays the ANOVA summary table. The data in the ANOVA summary table shows that there was not a significant interaction between number of partners and self-efficacy, locus of control, or responsible sexual behaviors.

TABLE 6: One-Way ANOVA Summary Table

	Mean Squares	df	F	Sig.
# of Partners x LOC	2.579	3	.603	.614
# of Partners x Self-Efficacy	6.146	3	1.847	.143
# of Partners x Sexual Behaviors	0.189	3	.789	.503

CHAPTER 5

Discussion

Chapter five provides a review of the study, limitations of the study, and recommendations for future research.

Regarding the original research question testing the relationship of self-efficacy, locus of control, and responsible sexual behaviors, no support was found for a relationship between self-efficacy and responsible sexual behaviors. Support was found for a relationship between locus of control and responsible sexual behaviors. Analyses did suggest that female undergraduates possessed both high self-efficacy and internal locus of control, yet locus of control was the only variable which had a significant relationship with responsible sexual behaviors. In addition, statistical analysis correlating locus of control and self-efficacy found the two variables to be largely independent.

The high levels of self-efficacy among college females are comparable to the similarly high scores reported by Goldman & Harlow (1993) in a similar sample of female undergraduates. In contrast with findings from this study however, self-efficacy was found to be significantly associated with more responsible sexual behaviors similar to those addressed in the current study (Heinrich, 1993: Kasen, Vaughan, & Walter, 1992; Mahoney et al., 1995; Terry, 1993; Walter et al., 1993). Thus, the relationship between levels of self-efficacy and responsible sexual behaviors is conflicting.

This conflict may exist due in part to the disconnect between intensions to perform a behavior and the actualization of that behavior. These past studies measured

the effects of self-efficacy on intentions to engage in safer sex behavior. This research however, based on actualized behavior, found no significant relationship.

This study found that college females overall reported more internal locus control, which significantly correlated to responsible sexual behaviors. These findings indicate support for locus of control as a predictor to engage in safer sexual practices. This further supports prior research which indicates that perceived behavioral control can be used as a direct predictor of behavior (Ajzen, 2002). This concept, first introduced in the Theory of Planned Behavior, connects an individual's perceptions of control to intentions and perseverance which directly correlates to the resulting behavior. In regards to responsible sexual behavior, perceived personal control would provide the individual with the needed stamina to follow through on intentions to perform safer sexual practices.

In this study, no significant relationship was found between locus of control and self-efficacy, although high levels of self-efficacy and internal locus of control were found among this sample. This suggests support for the independence of the two concepts as described by Leone & Burns (2000) who stated that although individuals may possess the efficacy to perform an action, they may not feel a sense of control over the outcome of that action. Further supporting the idea that levels of self-efficacy are not dependent on internal or external locus of control.

Caution should be given to the idea that self-efficacy and locus of control are independent of one another. The aforementioned research on the Theory of Planned Behavior intertwines self-efficacy with locus of control in regards to the intent to perform a behavior and the perseverance to actualize that same behavior. Since past research has

found a significant relationship between self-efficacy and the intent to engage in safer sex behavior (Heinrich, 1993: Kasen, Vaughan, & Walter, 1992; Mahoney et al., 1995; Terry, 1993; Walter et al., 1993), further study should be given to the interconnectedness of these two concepts.

Limitations

One limiting factor to consider is the participants of the study. Overall variability in general may have been low and may have been ceiling effects for some of the variables. The fact that all the participants were from the same university in the community may have contributed to the lack of variability and skewed results. Results may vary if tested against other students in colleges and universities within the community.

Another limiting factor that may have contributed to the findings of this study is the nature of the questions on the locus of control scale. The questions were worded in terms of absolutes, for example "In the long run, people get the respect they deserve in this world" (Rotter, 1966, p. 210). Adjusting questions to allow for more conditional situations may alter the responses and reduce the possibility of a high socially desirable response rate.

A final limitation is the response rate obtained during the study. Although the researcher obtained an overall response rate of 47% on returned surveys, several factors may have affected participation in the study. First, several students interested in participating were unable to do so due to the restrictions placed on age. Limiting the study to individuals 19 years of age and older may have reduced variability within the

sample. Second, due to the personal nature of this study, there may exist a common denominator among those who chose not to participate. Though this remains as an interpretation rather than deduction because feedback was not solicited from non-respondents.

Strengths

Although self-efficacy has been widely researched in regards to sexual behaviors, the concept of locus of control has been largely ignored. The two concepts are embedded within Social Learning Theory and are used to describe intentions and motivation toward behavior. Yet, much of the attention has been given to the effects of self-efficacy on responsible sexual behaviors. The relatedness of the two concepts in addition to the connection of locus of control to goal achievement and avoidance of negative consequences lends itself to a concept important in determining responsible sexual decision-making.

The significant relationship found between locus of control and responsible sexual behaviors lends itself to the importance of this psychosocial aspect in further studies. In addition, the relationship between self-efficacy and locus of control warrants further research to determine the effects of each concept on actual behavior.

The preventative measures that currently exist in regard to sexual behavior have not been found to affect change in actual behaviors (Schinke, Gordon, & Weston, 1990; McKay, 1993). Recent research suggest that locus of control is an important characteristic to consider in prevention efforts (Rosenthal et al., 2002). The findings from this research further support this idea and provide a groundwork for future studies.

Considerations

The sample used in this study was comprised of both traditional and non-traditional university students. That is, students attending the University of Nebraska at Omaha fall both in the typical undergraduate age range of 18-22 years of age, and in the non-traditional age range of those attending college later in life. It is important to look at sexual activity in terms of traditional versus non-traditional students. The subjects in this study however, did not provide an equal sampling of the two categories and was therefore not investigated.

The majority of subjects within the study sample claimed to be heterosexual. Sexual decision-making and sexual behaviors may vary significantly when considering sexual orientation. For example, studies of gay and bisexual men identified self-efficacy as a factor in reduced risk-taking behaviors within this population (Catania et al., 1991; Kelly et al., 1990). Due to the fact that gender differences appear to exist in terms of self-efficacy and locus of control as mentioned earlier, considering the impact of the two variables in relation to sexual preference among females could foster a greater understanding of the correlation between self-efficacy, locus of control, and sexual behavior.

A final consideration is the impact of self-efficacy and locus of control on a diverse population. The current sample consisted mainly of Caucasian subjects, which is consistent with the majority of prior studies conducted on college campuses (Cecil & Pinkerton, 2000; Ratliff-Crain et al., 1999; Thompson & Geher, 2001). The under-

representation of diverse populations provides little insight into the effects of these variables upon women of ethnicity.

Implications

While educators and counselors need to become better attuned to identifying and assessing interpersonal factors associated with responsible sexual behaviors, little research has been performed outside educating individuals about safe sex behavior. The atmosphere of sexual permissiveness and the influence of peer/partner attitudes on sexual decision making constitutes a need for further research to guide professionals in helping individuals gain personal control and responsibility in the realm of sexuality.

Indicators of responsible sexual decision-making that have been mentioned in the literature include frequency of contraceptive use (Heinrich, 1993), refusal of intercourse unless contraception is used (Kasen, Vaughan, & Walter, 1992), and communication about safe sex (Mahoney et al., 1995.) Self-efficacy has been found in these studies to be a predictor of intent to engage in the mentioned activities. Although self-efficacy has been identified as a predictor of safer sex behavior, researchers suggest that locus of control is central to acceptance of responsibility for consequences of behavior, and feelings of well-being and stability. The findings from this study implies that locus of control is a factor in actualized safer sex behaviors. Individuals possessing an external locus of control may have the desire to practice safer sex behaviors, however their actions may not be consistent with their desire due to the belief that forces outside of their control affect the consequcnces they experience. Therefore, a greater emphasis should be placed

on the development of stronger personal control in conjunction with the existing preventative education.

Continued study in factors that affect safer sexual behaviors is important. Additionally, research that involves interviewing adolescents and young adults about influences that affect sexual decision-making may be important in determining prevention methods for this population. Although several theories of influences on sexual behavior have been tested, few education and prevention models have been based on input from adolescents and young adults (DiCenso, Guyatt, Willan, & Griffith, 2002). It is possible that although self-efficacy and locus of control are factors, other variables exert greater influence on sexual decision-making. It seems important to tailor prevention models to meet the immediate needs of the target population.

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Appendix A

Sexual Behavior Questionnaire

Sexual Behavior Survey

For the following eleven questions please select the **one** statement of each pair which you more strongly believe to be the case as far as you're concerned. This is a measure of personal belief, there are no right or wrong answers. Please answer these items carefully but do not spend too much time on any one item. For each numbered question make an X on the line beside either the *a* or *b*, whichever you choose as the statement most true.

1. _____ a. Many of the unhappy things in people's lives are partly due to bad luck.
   _____ b. People's misfortunes result from the mistakes they make.

2. _____ a. In the long run people get the respect they deserve in this world.
   _____ b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he/she tries.

3. _____ a. I have often found that what is going to happen will happen.
   _____ b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

4. _____ a Becoming a success is a matter of hard work.
   _____ b. Getting a good job depends mainly on being in the right place at the right time.

5. _____ a. Most people can't realize the extent to which their lives are controlled by accidental happenings.
   _____ b. There really is no such thing as "luck".

6. _____ a. Many times I feel that I have little influence over the things that happen to me.
   _____ b. It is impossible for me to believe that chance or luck plays an important role in my life.

7. _____ a. What happens to me is my own doing.
   _____ b. Sometimes I feel that I don't have enough control over the direction my life is taking.

8. _____ a. When I make plans, I am almost certain that I can make them work.
   _____ b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

9. _____ a. In my case getting what I want has little or nothing to do with luck.
   _____ b. Many times we might just as well decide what to do by flipping a coin.

10. _____ a. Sometimes I can't understand how teachers arrive at the grades they give.
    _____ b. There is a direct connection between how hard I study and the grades I get.

11. _____ a. It is hard to know whether or not a person really likes you.
    _____ b. How many friends you have depends upon how nice a person you are.

For the following six questions, please select the response that is most true for you. Again, please respond carefully but do not spend too much time on any one item. This questionnaire is a measure of personal belief, there are no right or wrong answers.

	Not at all True	Hardly True	Moderately True	Always True
12. I can always manage to solve difficult problems if I try hard enough.	1	2	3	4
13. It is easy for me to stick to my aims and accomplish my goals	1	2	3	4
14. I am confident that I could deal efficiently with unexpected events	1	2	3	4
15. I can remain calm when facing difficulties because I can rely on my coping skills.	1	2	3	4
16. I can solve most problems if I invest the necessary effort.	1	2	3	4
17. When I am confronted with a problem, I can usually find several solutions.	1	2	3	4

The following questions are related to your personal sexual behaviors and decision-making. Please respond carefully to each item. These are personal decisions and behaviors. There are no right or wrong answers.

	Never	Sometimes	Usually	Always	
1. Do you refuse sexual intercourse with:					
a. Someone whose sex and drug-use histories are not known to you?	1	2	3	4	N/A
b. Someone you want to date again?	1	2	3	4	N/A
c. Someone whom you have already had sexual intercourse?	1	2	3	4	N/A
d. Someone who is pushing you to have sexual intercourse?	1	2	3	4	N/A
e. Someone while under the influence of drugs / alcohol?	1	2	3	4	N/A

	Never	Sometimes	Usually	Always	
2. Do you discuss preventing AIDS or sexually transmitted diseases (STD's) or pregnancy with:					
a. Someone you are having a casual relationship with?	1	2	3	4	N/A
b. Someone you have just met?	1	2	3	4	N/A
c. Someone whom you have already had sexual intercourse?	1	2	3	4	N/A
d. Someone you would like to have an exclusive relationship with?	1	2	3	4	N/A
3. Have you ever been tested for HIV/AIDS and STD's	1 (yes)	2 (no)			
4. Do you to ask your partner about sexual relationships that he/she had in the past?	1	2	3	4	N/A
5. Do you use a condom/dental dam during sexual/oral intercourse:					
a. With someone you just met?	1	2	3	4	N/A
b. With someone whose sex and drug-use histories are unknown to you?	1	2	3	4	N/A
c. With someone you want to date again?	1	2	3	4	N/A
d. In an exclusive relationship until both of you have been tested for HIV/AIDS and STD's	1	2	3	4	N/A
6. Do you use a condom/dental dam during sexual / oral intercourse while under the influence of drugs/ alcohol?	1	2	3	4	N/A
7. Do you insist on using a condom during sexual intercourse even if your partner does not want to use a condom?	1	2	3	4	N/A
8. Do you communicate with your partner your sexual needs during intercourse?	1	2	3	4	N/A
9. Do you discuss your sexual needs with your partner at times you are not engaging in sexual intercourse?	1	2	3	4	N/A

10. Are you emotionally intimate with your partner as well as physically? 1 2 3 4 N/A

Demographic Information:

1. Age: _____

2. Marital Status
   a. single b. married c. widowed d. divorced

3. Are you sexually active?
   a. yes b. no

4. Race
   a. Caucasian b. African-American c. Native-American d. Asian

   e. Hispanic f. Other

5. What is your current GPA?
   a. 3.5-4.0 b. 3.0 – 3.49 c. 2.5 – 2.99 d. 2.0 – 2.49 e. 1.5 – 1.99 f 1.0 – 1.49 g. 0 - .99

6. What is your major? _____

7. Did you ever receive formal sexual education?
   a. yes b. no

8. What are your current living arrangements?
   a. living off campus b. living on campus c. living with parents d. living with partner

9. What is your sexual orientation?
   a. heterosexual b. homosexual c. bisexual

10. How many sexual partners have you had within the last twelve months?
    a. 0 b. 1-2 c. 3-5 d. 6-8 e. 9-11 f. 12-15 g. 16 +

Thank you for your participation in this study. Should you have further questions or concerns as a result of participating in the study you may contact me at any time, 402-695-0284. In addition, counseling services are available free of charge to University of Nebraska at Omaha students in the Counseling Clinic located in Kayser Hall, room 421. The phone number is 402-554-2727.

Appendix B

Institutional Review Board Approval

University of Nebraska Medical Center

NEBRASKA'S HEALTH SCIENCE CENTER
A Partner with Nebraska Health System

Institutional Review Board (IRB)
Office of Regulatory Affairs (ORA)

October 17, 2003

Michelle Noah
College of Arts & Sciences
UNO - VIA COURIER

IRB # 254-03-FB

TITLE OF PROPOSAL: The Effects of Self-Efficacy and Locus of Control on the Sexual Behaviors of College Females

SECONDARY INVESTIGATORS: David Carter, PhD; Scott Harrington

DATE OF FULL BOARD REVIEW 09-18-03 DATE OF EXPEDITED REVIEW

DATE OF FINAL APPROVAL 10-17-03 VALID UNTIL 09-18-04

The Institutional Review Board (IRB) for the Protection of Human Subjects has completed its review of the above-titled protocol and informed consent document(s), including any revised material submitted in response to the IRB's review. The Board has expressed it as their opinion that you are in compliance with HHS Regulations (45 CFR 46) and applicable FDA Regulations (21 CFR 50, 56) and you have provided adequate safeguards for protecting the rights and welfare of the subjects to be involved in this study. The IRB has, therefore, granted unconditional approval of your research project. This letter constitutes official notification of the final approval and release of your project by the IRB, and you are authorized to implement this study as of the above date of final approval.

Please be advised that only the IRB approved and stamped consent/assent form can be used to make copies to enroll subjects. Also, at the time of consent all subjects/representatives must be given a copy of the rights of research participants.

The IRB wishes to remind you that the PI is responsible for ensuring that ethically and legally effective informed consent has been obtained from all research subjects. For protocols posing greater than minimal risk, the PI must counter sign and date all consent forms where they are not the individual obtaining and documenting informed consent. This countersignature should occur as soon as possible, but at least within 10 business days of the time the subject/representative signs the consent form.

Finally, under the provisions of this institution's Federal Wide Assurance (FWA00002939), the PI is directly responsible for submitting to the IRB any proposed change in the research or the consent document(s). In addition, any unanticipated adverse events involving risk to the subject or others must be promptly reported to the IRB. This project is subject to periodic review and surveillance by the IRB and, as part of their surveillance, the IRB may request periodic reports of progress and results. For projects which continue beyond one year, it is the responsibility of the principal inv[illegible] to the IRB for continuing review and update of the research project.

Sincerely,

Ernest Prentice, PhD / GDK

Ernest Prentice, PhD / GDK

Ernest D. Prentice, Ph.D.
Co-Chair, IRB

EDP/gdk

Appendix C

Adult Consent Form

University of Nebraska Omaha

COLLEGE OF EDUCATION
Counseling Department

IRB: #254-03-FB

ADULT INFORMED CONSENT FORM

THE EFFECTS OF SELF-EFFICACY AND LOCUS OF CONTROL ON THE SEXUAL BEHAVIORS OF COLLEGE FEMALES

You are invited to participate in this research study. The information in this consent form is provided to help you decide whether to participate. If you have any questions, please do not hesitate to ask.

Participation in this study is voluntary. You are eligible to participate because you are a female who is 19 years of age or older, and an undergraduate at the University of Nebraska Omaha. The purpose of this study is to investigate the relationship between high self-efficacy (the belief that one can successfully execute the actions needed to produce a desired outcome), internal locus of control (the belief that rewards are of personal effort) and responsible sexual behaviors (frequent condom use, resistance of substance use in sexual relations, reduced number of sexual partners, the ability to say no to unwanted sex and effective communication with sexual partners) among college females.

Participation in the study requires approximately 20 minutes. Subjects will be asked to complete two forms: 1.) A form that asks the usual type of demographic questions such as your age and marital status; and 2.) An investigator designed questionnaire that will assess: a.) Internal versus external locus of control; b.) Levels of self-efficacy; and c.) Sexual decision-making.

The risk associated with this study is the loss of confidentiality. Confidentiality of your responses will be maintained by requiring no identifying information on the survey or consent form. In addition all surveys will be kept in a locked cabinet and will not be accessible to anyone other than the principal investigator and secondary investigator. There are no direct benefits to you should you decide to participate. It is hoped that the findings may be useful in education and prevention resources given to women to assist in making positive decisions toward greater emotional and physical health in regard to sexual behavior.

The only persons who will have access to your research are Ms. Noah, the principal investigator, and David Carter, Ph.D., the secondary investigator. The information from this study may be published in scientific journals and/or presented at scientific meetings but your identity will be kept strictly confidential.

You have rights as a research participant. These rights are explained in *The Rights of Research Participants*, which you have been given. If you have any questions

IRB APPRCVED
VALID UNTIL 9-16-04

University of Nebraska Omaha

COLLEGE OF EDUCATION
Counseling Department

IRB: #254-03-FB

concerning your rights, you may contact the Institutional Review Board (IRB), phone number (402)559-6463.

You can decide not to participate in this study or you can withdraw from this study at any time. Your decision will not affect your relationship with Ms. Noah, Dr. Carter, your course instructor, or the University of Nebraska at Omaha. Your decision will not result in any loss of benefits to which you are entitled.

You are voluntarily making a decision whether to participate in this research. Your completion of the survey means that you have read and understood the information presented and decided to participate. Your completion of the survey also means that the information on this consent form has been fully explained to you and all your questions have been answered to your satisfaction. If you think of any additional questions during the study, you should contact the investigators.

I certify that all the elements of informed consent described on this consent form have been explained fully to the participant. In my judgment, the participant is voluntarily and knowingly giving informed consent and possesses the legal capacity to give informed consent to participate in this research.

Authorized Study Personnel

Principal Investigator
Michelle Noah, B.S., M.A. (C) Home: (402) 884-5732 Mobile: (402) 659-0284
Graduate Student: University of Nebraska at Omaha
Department of Education in Counseling

Secondary Investigator
David J. Carter, Ph.D. Office: (402) 554-3559 Mobile: (402) 213-4556
Assistant Professor: University of Nebraska at Omaha
Department of Education in Counseling

IRB APPROVED
VALID UNTIL 9-18-04