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Possible Predictors And Effects Of Rape During The First Semester Of The First Year Of College

Christine Ellen Frydenborg

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POSSIBLE PREDICTORS AND EFFECTS OF RAPE
DURING THE FIRST SEMESTER OF THE FIRST YEAR OF COLLEGE

BY

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Submitted in partial fulfillment of the
requirements for the Degree of Doctor of Philosophy
Seton Hall University

1999
Abstract

POSSIBLE PREDICTORS AND EFFECTS
OF RAPE DURING THE FIRST SEMESTER OF
THE FIRST YEAR OF COLLEGE

Rape has become an area of strong concern especially on college campuses. One in every four college women experiences a sexual assault (Koss, 1987; Roiphe, 1993). The purpose of this study was to explore rape on campus, symptoms of victims, rates of perpetration and characteristics of perpetrators. A pool of 850 first-year students were invited to voluntarily participate. Students were administered the Self-Rating Scale (Rosenberg, 1965), Beck Depression Inventory (Beck, 1978), Self-Analysis Form (Cattell, 1963), Rape Myth Acceptance Scale (Burt, 1980; Newman & Colon, 1994); Attitudes Toward Women Scale (Spence & Helmreich, 1978), Sexual Experience Survey (Koss & Oros, 1982), Social Desirability Scale (Strahan & Gerbasi, 1972), Sexual Aversion Scale (females only; Katz, Gipson, Keidl & Kriskovich, 1989) and the Hostility Toward Women Scale (males only; Lonswey & Fitzgerald, 1995). Administrations were conducted during the first semester of college (September and November).

It was hypothesized that there would be an increase in sexual assaults and sexual experience from September to November and that this increase in sexual experience, for males, would lead to an increase in self-esteem. Women
reporting a sexual assault or sexually aggressive act would report an increase in rape myth acceptance, psychological distress, and sexual aversion, lower self-esteem, and more non-feministic views toward women. It was hypothesized that males who reported perpetrating sexually assaultive or aggressive acts against women would report higher levels of rape myth acceptance and hostility toward women and more non-feministic attitudes toward women.

A sample size of 150 males and 215 females at baseline, and 120 males and 151 females at follow-up, was obtained. Results indicated a high prevalence of sexual assaults on campus, an increase in sexual experience but, not an increase self-esteem. Female victims of sexual assault reported higher levels of depression and anxiety while males who were sexually aggressive or assaultive reported higher levels of rape myth acceptance and hostility toward women and more non-feministic attitudes.

This study supports existing research illustrating rape and sexual violence as a problem within our society and on college campuses. It indicates the need for future research pertaining to the characteristics of perpetrators and victims to determine more effective prevention tactics.
Acknowledgments

The completion and submission of my doctoral dissertation means the
completion of the most significant undertaking in my life, as well as the most
important piece of work. Such an achievement would not have been possible
without the dedication, support, guidance, assistance and love of many people.

Dr. Robert Massey, with whom I did not always see eye-to-eye, has
worked with me since the moment I entered Seton Hall University. He never
doubted my abilities and always encouraged me to strive for the highest
(especially to be Dean one day).

I also wish to thank the Department of Professional Psychology and
Family Therapy. Dr. Bruce Hartman who was there with a challenge for me to
rise up to, some higher than others. Dr. Adriana Dunn who always had a word
of encouragement or positive feedback especially during times when things
seemed so wrong. Her smile and sensitivity made quite a difference. Dr.
Shawn Utsey for being a beacon of light in the midst of the storm and joining
the team at such a late stage in the process.

One additional person I need to thank is Daniel W. Byrne whose input
and support were imperative in the completion of this project. He became
such a significant part of this dissertation and an invaluable resource.
It is vital that I thank the entire department of Freshmen Studies at Seton Hall University without whom this project would not have been possible. I can not thank enough Cheryl Notari, Acting Dean of Freshmen Studies, who was always able to put me at ease throughout my entire data collection process. She, and all of the Skills Class instructors, were invaluable for their assistance and support.

So much has occurred during the past four years of my life including the death of my step-father who, by no means, deserved the title of "step". I have been fortunate to have a family and network of friends whose support never wavered and I thank God for all they have done for me. There were times when I truly doubted the completion of this dissertation and had to be reminded that the end was indeed a reality. My family and friends were there to give me that reminder whenever I needed it. Never have I felt so exhilarated and stressed at one time as I have while working on this project.

I am glad my father is in my life to tell me how proud he is and my brother for always wanting to protect me when the going got rough. I can not express in words the gratitude I feel for my mother, Ellen. She is my best friend without whom, I know, I would not be typing this final piece of my dissertation. She has always been there no matter how stressed I was or doubtful of myself. She has truly done all she can and believed in me every step of the journey. "I love you" does not express how I feel for her and how
much I wish to thank her. In addition, my thoughts and prayers must return to my step-father, Chris, who would be so proud knowing that "I did it". I wonder if he knows how significant his presence was in my life and how much he impacted the completion of this work and the person I am today. He was a father to me in every way and I know he is smiling down on me.

To all of you, my never ending gratitude. You have been so significant in the process and I thank you all!
Dedication

This dissertation is dedicated to the two people who never doubted its completion without whom it would not have been possible:

Ellen P. Frydenborg

and

Christopher J. Cox
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CHAPTER I

Introduction

In today's society many issues have risen to the surface as strong areas for community and societal concern. One of these issues is rape, especially the prevalence of it on college and university campuses. The issue of rape is no longer gender specific (females as the victims and males as the perpetrators). Despite worldwide prevalence, same sex perpetration against males is vastly under reported and unrecognized (Scarce, 1997). One of the most significant changes demonstrating the awareness of this issue is modifications in state laws making them gender-neutral so that the victim and offender can be either male or female. Previously, sexual assaults perpetrated against males were prosecuted under sodomy laws. The problem with this is that, by law, both the victim and offender were usually charged (Allgeier, & Allgeier, 1998).

For the purpose of this study, however, the focus will remain on heterosexual experiences including males as perpetrators and females as victims. A significant amount of research is available in this area, but there are aspects to this epidemic that have been neglected in the literature and in previous research studies.

While attending college, one in four women are sexually assaulted (Koss, 1987; Roiphe, 1993). Eighty-three percent of college women have experienced
some type of sexual aggression and 24% of these cases involved forced intercourse (Kanin & Parcell, 1977). Sexual assault, that meets the legal definition of “being pressured or forced to have sexual contact” (Sorenson, Stein, Siegel, Golding, & Burnam, 1987, p. 156), primarily happens during the first-year of college. Women are more vulnerable during their first months on campus. They are unfamiliar with their surroundings, have greater freedom than they had while living at home, and have much more to explore (Finley & Corty, 1993).

A study of 6,159 female students from colleges and universities across the country found that one-quarter of the women were rape victims (Koss, 1987). According to many studies, 84% of these women knew their attackers, and 57% were raped by their dates (Abbey, 1991; Koss, 1987; Meyer, 1984). Most assaults occur during a woman’s first year with the largest percentage happening during the first six weeks of the first semester on campus (Warshaw, 1988). Rape, acquaintance in particular, is both the most under reported act, but, also, possibly the most psychologically damaging type of assault (Barrett, 1982; Fox & Rothbaum, 1998).

Statement of the Problem

Rape is a highly prevalent problem in our society, with the greatest frequency of reported cases occurring among first-year college students. A
considerable amount of research has been conducted in the areas of rape prevention on college campuses, the effects of alcohol and communication on the high rate of rape, and the symptoms a victim will manifest immediately after a rape or within a short time following the incident. In addition, lack of awareness is clearly a component of the problem. Approximately only one-quarter of women who experience an act that meets the legal definition of rape actually label the experience as such, and only 10% tell someone what has happened (Abbey, 1991).

Taking this into consideration, the primary purpose of this study is to further explore the prevalence of rape on a college campus, the symptoms reported by rape victims, the rate of self-reported perpetration, and the characteristics that make perpetrators different from their classmates. It is hoped that this study will yield a better understanding of the risk factors of rape, as well as the effects that such an experience has upon a victim, by assessing the state of the students on a number of variables at the beginning of the semester, before the students have an opportunity for sexual involvement, and then again at the end of the semester after the expected number of sexual assaults (based upon previous research) has occurred.

Research Questions

The aim of the study is to determine whether symptoms usually
exhibited by rape victims (including lowered self-esteem and elevated levels of depression, anxiety, and sexual aversion) are reported by first-year female college students and if such reports show an increase from September to November. In addition, an analysis of views of the women studied pertaining to their own roles as women, as well as their possible acceptance of rape myths, will be conducted to assess changes during the semester. It is hypothesized that 25% of the females in the sample will report some type of assautive behavior, most likely rape.

In the male students surveyed, differences in their acceptance levels of rape myths and their views of women's roles will be analyzed for changes. In terms of self-reports, correlations will be examined among degrees and extent of sexual experiences, hostility toward women and sexual experiences. It is hypothesized that changes will occur over the course of the semester for both genders. There will be an increase in the reported amount of anxiety, depression, and sexual aversion for the women who report being victims of assautive behaviors, and a decrease in the reported levels of self-esteem, compared with the women who report experiencing no victimization.

Based upon previous research, it is hypothesized that women who are assaulted will be more likely to accept rape myths and non-feminist views of women than their female counterparts who have not had such an experience.
On the other hand, men who report perpetration will more likely report greater acceptance of rape myths, and a lower level of acceptance of pro-feminist roles for women compared with men, who do not report any perpetrating acts, or aggressive behaviors toward women.

Hypotheses

This study will address the following hypotheses. For the purpose of this study, although differentiations will be made between acquaintance, date, and stranger rape, the hypotheses above will combine these three categories for the statistical analyses:

1. As a result of an increase in sexual experiences (assaultive and non-assaultive) the males report higher levels of self-esteem from September to November.

2. Of those women who report being victims of sexually assaultive behaviors (approximately 20% of the first-year college women), they also report lower levels of self-esteem, more psychological distress such as depression and anxiety, greater levels of acceptance of rape myths, higher rates of reported sexual aversion and sexual dysfunction, and more non-feminist attitudes concerning women's roles in society from September to November.

3. Of the first-year male students who report sexually assaultive
behaviors toward women, and admit perpetration, they also report higher levels of acceptance of rape myths (which has been found to be the trend with sexually assaultive behavior), higher levels of hostility toward women, and more non-feminist views of women. Depression and anxiety will also be analyzed for exploratory purposes in order to view the roles of these two factors which have gone unaddressed in previous literature.

4. Males who admit to engaging in sexually aggressive behaviors, rather then sexually assaultive behaviors, fall somewhere in between the sexually assaultive and the non-experience groups.

5. Females who report experiencing sexually aggressive behaviors, and not sexual assault, report psychological stressors and other characteristics falling in between the non-experience and sexually assaulted groups.

Definition of Terms

**Acquaintance Rape**

In many cases of rape the victim knows her attacker. In this case, the rape is referred to as acquaintance rape. Acquaintance rape is defined as a rape committed by a man whom the victim knows (Estrich, 1987; Warshaw, 1988). This, as well as date rape (please see definition on the following page), do not
indicate lesser kinds of rape, but, ironically, are usually irrelevant in most legal definitions. Although distinctions are made between date, acquaintance and stranger rape in the literature, no distinction is made in a court of law where the type of rape is irrelevant. Merely the act of rape is significant. These terms are used to describe the context of the relationship between perpetrator and survivor at the time the rape occurred (Benson & Vincent, 1980).

Coercive Sex

As defined by Miller and Marshall (1987) coercive sex is "an interaction that begins between a man and a woman in the context of a social event or gathering and ends with one participant forcing the other to participate in sexual activity against his or her will. This is often referred to as "date rape" (Miller & Marshall, 1987, p. 38). For the purpose of this study, the term date rape will be used although coercive sexual activity will be discussed. This term will encompass any sexual activity a woman participates in from kissing to petting to intercourse because of coercion.

Date Rape

Date rape is defined as a rape that occurs when the man and woman are on a date together, and the man forces the woman to engage in intercourse against her will, without her consent, while the individuals involved are on a date together. A relationship exists between the two individuals that is more
intimate than friendship; intercourse occurs and the woman is a non-consenting participant (Shuker-Haines, 1990).

**Perpetrator**

The term perpetrator will be used interchangeably with the terms offender and assailant. All of these terms refer to an individual who has committed a rape or sexual assault (Wiehe & Richards, 1995). Because of the nature of this research it is understood that for these purposes the masculine pronoun will be used and perpetrators are males.

**Positive and Negative Attitudes Toward Women**

In the usage of the Attitudes Toward Women Scale (Spence & Helmreich, 1978), Hull and Burke (1991) utilized the terms "positive attitudes toward women" and "negative attitudes toward women" (p. 1) to refer to subjects' based upon their responses to the items in the scale. An individual categorized as having "positive attitudes toward women" (p. 1) endorse items that women are equal to men and should be treated as such (Hull & Burke, 1991). For the purpose of this study the term pro-feminist will be used to refer to the category of people who report attitudes and beliefs of women as equal to men, deserving of the same rights and privileges in society.

In contrast, Hull and Burke (1991) referred to individuals whose attitudes and beliefs are those that degrade women or view women as
subordinate to men having "negative attitudes toward women" (p. 1). People with such beliefs view women as unequal to, and beneath, men and endorse items indicative of such beliefs. For the purpose of this study, individuals who report such beliefs will be referred to as anti-feminist.

Rape

The definition of rape seems to vary as much as the definitions of sexual assault. Thus, the two terms are often used interchangeably. Berkowitz (1992) defined rape as "the most extreme form of sexual assault" (p. 175). He continued by adding that most states define rape as penetration without the victim's consent (Berkowitz, 1992). This definition is the same as many definitions of sexual assault.

Outside of the realm of the law, the issue of rape has brought much controversy in society. Often, a definition does not pertain to the legal aspect, but more so to the psychological aspect of the experience. Such is Brownmiller's (1975) definition of rape: "nothing more or less than a conscious process of intimidation by which all men keep all women in a state of fear" (p. 15). Thus, rape denotes social control over women. The same can be said for the prevention tactics women may learn to avoid being raped (Brownmiller, 1975).

In the past, many definitions of rape included "forced sexual intercourse
with a woman who is not his wife” (Englander, 1997, p. 25). But, today many states have re-written the definition to include spouses (Englander, 1997).

For the purpose of this study, Koss’ (1981, 1987, 1988) definition of rape will be used. This definition is the legal definition in most states. Rape, thus defined, is an act that involves penetration of a woman, without her consent through the use of force, or threat of force, or when the victim is incapable of giving her consent (Allgeier & Allgeier, 1998; Jackson & Petretic-Jackson, 1996; Koss, 1981, 1987, 1988, 1993a, 1998). This term will be used interchangeably with sexual assault.

Rape Myths

Many myths surround the topic of rape. One is the idea that some crazed man will jump out of the bushes and attack an innocent female walking by, alone, at night, down an unlit path (Shuker-Haines, 1990).

Burt (1980) defined rape myths as attitudes that are “prejudicial, stereotyped or false beliefs about rape, rape victims and rapists” (p. 217). An example of a rape myth is that many people believe that rape involves force but that is not always the case (Estrich, 1987).

There are proposed characteristics of rape myths. The first is that they are false or apocryphal beliefs held by a large number of people. The second characteristic is that they explain some important cultural phenomenon.
Lastly, rape myths serve to justify existing arrangements in our culture. So, according to Lonsway and Fitzgerald (1994), rape myths are "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women" (p. 134).

Rape myths also serve a number of societal functions and purposes. Burt (1991) suggested that "rape myths are the mechanism that people use to justify dismissing an incident of sexual assault from the category of 'real' rape...such beliefs deny the reality of many actual rapes" (p. 27). Gilmartin-Zena (1987) described rape myths in line with the "just-world" (Lerner, 1980, p. 156) phenomenon meaning that people are predisposed to believe that the world is a just place where good things happen to good people and only bad things happen to bad people or people who deserve them. People attempt to protect this belief by searching for the evidence to prove that a rape victim deserved what was done to her (Lerner, 1980). Thus, rape myths also function as an explanation for this unfortunate phenomenon and to explain why victims deserve their fates. Rape myths also function to provide a sense of security generating the belief that good people are immune to rape (Lonsway & Fitzgerald, 1994).

Sexually Experienced/Non-Experienced

Although usage of the Sexual Experience Survey (Koss & Oros, 1982)
has led to the establishment of groups or categories for individuals based upon their sexual experience including "sexual perpetration group" (males reporting perpetration of sexually abusive acts) and "sexual victimization group" (women reporting victimization of sexually abusive acts; Hull & Burke, 1991, p. 5), but, research has not focused on comparisons between these individuals and individuals who do not fit into these groups. Terms are needed in order to address these groups of individuals for the purpose of this study.

The term sexually experienced, for the purpose of this study, will be utilized to describe people who self-report being sexually active. This will include the spectrum of sexual behaviors such as kissing, petting, oral sex, anal sex, and intercourse. It is important to reiterate that individuals in this group have only engaged in consensual sexual acts.

The term non-experienced will be used to refer to women and men who self-report either not experiencing or not engaging in any kind of sexually assaultive/sexually aggressive behaviors and consensual intercourse. Thus, it will be used to refer to individuals who respond "no" to every question on the Sexual Experience Survey (Koss & Oros, 1982).

**Sexually Aggressive Behaviors**

For the purpose of this study, this term will be used to refer to any sexual interactions, except intercourse, committed by a man upon a woman in
which the woman is an unwilling participant. Physical threat or force of threat may have been used in order to get the woman to engage in the behaviors, but neither required for the behavior to be considered aggressive. Acts involving pressure or the ignoring of pleas and refusals are examples of aggressive behaviors in addition to acts of threat or physical force.

A term often used but synonymous with sexually aggression is sexual coercion; the exertion of pressure, such as verbal pressures and arguments, to perform sexual acts without the woman’s consent, but refraining from utilizing physical force or the threat of force. Thus, a man uses verbal pressures to coerce a woman into participating in sexual acts that she is unwilling and non-consenting to participate (Bridgeland, et al., 1994). This term will be used interchangeably with sexually aggressive behaviors.

**Sexual Assault**

Sexual assault seems to be defined very differently depending upon who is defining it and the context in which the definition is being used. Sexual assault is usually defined as any forced sexual act (Benedict, 1985). This includes a wide range of experiences. Rarely is it the man jumping out of the bushes (Shuker-Haines, 1990). Sexual assault can occur with little or no force. Perpetrators often report having used little force if any. Some women report that they were paralyzed with fear and could not fight back. But, this too is a
sexual assault because it was unwanted. The man is forcing himself, whether physical violence is involved or not, because the woman is unwilling (Matsakis, 1992), and the act is against her will and without her consent (Berkowitz, 1992; Estrich, 1987).

The strongest component to the definition is that the act of intercourse is non-consensual whether it be physical force or threat of force that is utilized to obtain penetration (Anderson & Cummings, 1993). State laws do vary, especially in terms of the differentiation between acquaintance, date, and stranger rapes. All are defined as penetration in which a woman is nonconsenting (Searles & Berger, 1987). Sexually assaultive behaviors can be placed on a continuum based upon the degree of force or coercion utilized by the perpetrator (Berkowitz, 1992).

Sometimes sexual assault also encompasses sexual acts other than intercourse. To others, the definition is quite similar to that of rape. A typical definition found in the literature is “being pressured or forced to have sexual contact” (Sorenson et al., 1987, p. 156). Some researchers have adopted the term sexual assault, although the development of the term is unclear (Hall & Flannery, 1984; Sorenson, et al., 1987, Winfield, George, Swartz & Blazer, 1990). But, in legal usage it is synonymous with rape (Koss, 1993b). For the purpose of this study the terms rape and sexual assault will be used
interchangeably and are considered synonymous. Other terms will be used to differentiate the extent of unwanted sexual contact between a man and a woman.

**Sexually Assaultive Behavior**

For the purpose of this study, this term will refer to an act perpetrated by a man against a woman that meets the definition of rape or sexual assault. Whereas sexual assault is used to refer to the act, this term is used to describe the behavior engaged in by the male which is sexually assaulting a woman.

**Survivor**

In much of the literature the term survivor is used rather than the word victim in order to refer to individuals who have experienced a rape or sexual assault. Survivor has become a preferable term considering that the person is alive to tell about the experience (Wiehe & Richards, 1995). For the purpose of this study, the terms survivor and victim will be used interchangeably.

**Limitations**

The findings of this study will be limited in terms of their generalizability only to other first-year college students, similar in circumstances and characteristics. It is imperative to keep in mind that the intention and purpose of the design is to acquire a better understanding of the actions and experiences encountered by first-year college students. In addition,
due to the fact that the University in question is a small, Catholic institution, this may limit the generalizability even to other institutions.

This study relies on the self-reporting of experiences by the participants themselves. Thus, the validity and reliability of the research is limited. Such a study as this could not be easily conducted by any other means. To assess the changes that occur during the first semester of college, the design of this study is ideal; survey the students at the beginning and end of the semester. Different assessment tools could be utilized and measure other variables but these factors seem to be the most significant, according to the research, and the most susceptible to change related to increases in positive and negative sexual experiences.

The first-year students of this university may not be representative of other colleges and universities, and thus, the sample may not be a true representation of other first-year college students across the country. The university is a mid-size eastern Catholic university with a first-year class of approximately 850 students. Although this is a unique piece of research, there are a number of obvious limitations even in the mere formulation of the study. All possible steps have been taken to construct a strong piece of research and to minimize threats to validity and reliability by using the best possible instruments to assess the desired variables in question and establishing a solid
administration process.

Some of the questionnaires have been used less frequently than others in the study and a researcher would prefer a tool that is more strongly established. In this instance, the tool is just as important as the variable it measures. Some of the variables are unique and rarely incorporated into previous research. Thus, so are some of the instruments. This study is somewhat exploratory in nature. There is a lack of research using some of these questionnaires and the variables addressed. It is significant that this study is venturing onto some new territories but, in turn there may be some risks to the validity and reliability because of the scales selected. In cases where the reliability or validity of the instrument was limited, all attempts were made to strengthen the instrument via the construction of this study as well as an analysis of the data it yielded.

Lastly, students under the age of 18 were prohibited from participating because of the required parental consent, that students under the age of 18 must have signed, to participate. A parental consent to participate in a study inquiring about sexual experiences might deter participants from being completely honest in their self-reports. A study such as this already faces many risks concerning honest reporting, and risks must be minimized. These students were eliminated from participating rather than implementing a parental consent resulting in a breach of anonymity guaranteed by this study.
CHAPTER II

Review of the Literature

Introduction

Although there is a considerable amount of literature available pertaining to heterosexual rape, perpetrated against women by a man (stranger, acquaintance and date), there is little available that integrates the multiple variables and factors addressed in this study. As discussed in chapter one, although rape is no longer gender specific (Scarce, 1997), it has become important to address aspects of research pertaining to heterosexual rape that, have been neglected in previous research. Much research has been conducted in terms of the prevalence of rape and the effects a rape has on a survivor. However, minimal reporting by victims has led to few identifications of perpetrators. As a result, there are few individuals available in order to effectively study perpetrators of rape.

In addition, sexually aggressive behaviors are not limited to sexual assault. This fact seems to have been lost in the research even though more research pertaining to rape is being conducted. One cannot compare sexually aggressive behaviors with domestic or other forms of violence due to the unique characteristics of these behaviors. Each form of sexual violence, including the type of perpetrator (spouse, same sex, friend, acquaintance,
significant other) and the degree of violence (kissing, petting, anal intercourse, oral intercourse, penetration), involves unique dimensions and should be addressed independently. Thus, this study will address previous research pertaining to heterosexual assaults committed by a male against a female.

**Prevalence of Heterosexual Rape Against Women**

Women on college campuses are subjected to pressures from many aspects of life which affect them both physically and psychologically. One of the most frequent areas in which such pressures occur is physical intimacy and sexual intercourse (Koss & Oros, 1982; Miller & Marshall, 1987). Koss (1988, 1998), after surveying 6,159 college students on 32 different college campuses across the country, found that more than one in four college women had been a victim of a rape, although prevalence figures, for college women who have experienced an acquaintance rape, range from 15% to 44% (Baier, Rosenzweig & Whipple, 1991; Lundberg-Love & Geffner, 1989).

In addition to these statistics, Koss (1988, 1998) determined that 84% of the victims knew their assailants; 57% of the assaults occurred on dates; 41% of the women raped were virgins at the time of the assault; 42% told no one; only 27% of the women who described themselves as victims of what met the legal definition of rape labeled what had occurred as rape; 42% of the victims indicated having sex with the offender again (it is unknown whether
voluntarily or not); and 25.1% of the men in the survey admitted to some
degree of sexually aggressive behavior (Koss, 1988, 1998). Considering the
size of her sample and variety of locations from which her sample was
collected, Koss’s study is considered one of the most significant in terms of
results attained and reliable in terms of accuracy as a true indication of
prevalence rates of rape in this country (Warshaw, 1988).

The 1995 Uniform Crime Reports estimated that approximately
102,000 rapes were reported in the United States in 1994 (Federal Bureau of
Investigation, 1995). This is an 8% increase from 1989 and a 21% increase
from 1984 (Jackson & Petretic-Jackson, 1996). Prevalence rates are also
collected by the Department of Justice through the National Crime
Victimization Survey which was recently revised to include behavior-specific
questions regarding sexual violence. This survey found that women reported
500,000 rapes during interviews conducted in 1992-1993 (Bachman &
Saltzman, 1995). It is important to keep in mind that rape is the most under-
reported of all violent crimes. It is estimated that rape actually occurs between
2.5 and 10 times more often than reported. Based upon the modifications, it
is believed that the rates found by the National Crime Victimization Survey,
although lower than rates found in other research studies, are a more accurate
portrayal of the true scope of this problem (Jackson & Petretic-Jackson, 1996).
Consistent findings indicate that late adolescents are at the greatest risk of being sexually assaulted (Allgeier & Allgeier, 1998; McCormick, 1994). Even greater numbers of undergraduate women experience other forms of sexually assultive behaviors, with one study reporting that 96% of women report some type of sexually coercive experience (Skelton, 1982). In a study by Bridgeland, Duane, and Stewart (1994), in an attempt to expand upon the study conducted by Koss, Gidycz, and Wisniewski (1987), three forms of forced sexual behavior were identified. They ranged in seriousness from sexual play to sexual intercourse to oral or anal sex. Of the almost 600 college-aged women surveyed, 44% reported that they had given into sex play (fondling, kissing, petting, but not intercourse) when they did not want to because they felt overwhelmed by the man’s arguments and pressures. Twenty-five percent of the women surveyed reported giving into the arguments and pressures and having forced sexual intercourse. Six percent of the women surveyed reported participating in sex acts such as anal or oral intercourse or penetration by objects when they did not want to because of the use of physical force or the threat of physical force (Bridgeland, et al., 1994). These findings are consistent with those in studies such as Koss’s (1987) and were attained from a reasonably large sample size.

Kanin (1977) found that 20 to 25% of college women reported forceful
attempts to obtain sexual intercourse by their dates during which the woman ended up screaming, fighting, crying, or pleading. These rates are approximately four times higher than the rates for all women (Bureau of Justice Statistics, 1984).

Research has indicated that men admit to applying a wide range of pressure on women, from lying about their feelings to physical assault (Shotland & Goodstein, 1983). A study conducted by Mosher and Anderson (1986) found that 66% of the men reported getting a woman drunk to have intercourse with her while 19% admitted to getting themselves drunk to have the ability to force a woman to have sex. Koss (1988, 1998), in a sample of men (from the 6,154 subjects described earlier), concluded that 4.3% admitted to the use of violence in order to obtain sex while 27% had used lesser degrees of physical violence or emotional force to get an unwilling woman to have sex. Considering not only the size of the sample, but the fact that the subjects were collected from multiple locations, provides confidence in the reliability of the reports. Women are more vulnerable, and men are more likely to commit assaults, during the first year of college, especially during the first semester (Aizenman & Kelley, 1988).

Prevalence rates are often questionable in terms of validity. One such potential threat is fabrication, and the other is nondisclosure (Skogan, 1981;
Sparks, 1982). Fabrication refers to a respondent's tendency to make up false reports for whatever reason (Levine, 1976). Although some recognize concern surrounding the issue of fabrication, it is generally believed that such an issue is unlikely (Sparks, 1982). What is more likely of concern is nondisclosure, especially when dealing with sensitive topics. Often respondents are hesitant to reveal personal information even when the disclosure is under anonymous conditions. Thus, this is a much more serious threat to the validity of rape statistics (Agnew, 1983; Catlin & Murray, 1979). Statistics addressing the prevalence of rape rely on voluntary reports by victims (Hindelang & Davis, 1977). But, it is believed that most victims are hesitant to report for a number of reasons (Curtis, 1976), including acceptance of stereotypical views of rape such as it is the victim's fault or the views of the people to whom they confide, who then may encourage her not to report the assault (Anderson & Beattie, 1995; Tsukeyoshi, 1996).

There are two types of nondisclosure: purposive non-reporting and unintentional non-reporting. Purposive non-reporting is the deliberate withholding of information concerning a relevant experience, in this case a rape. Unintentional non-reporting is the incapacity to report because of a lack of recall (Koss, 1993b). These factors have a profound effect on available prevalence rates of heterosexual assault perpetrated by males. However, the
effects of rape, although they may vary, are still an issue for all female survivors of sexual assault.

Posttraumatic Stress Disorder (PTSD) and Other Symptoms in Survivors

Many survivors of sexual assault manifest a variety of symptoms, the most frequently reported being increased fear, anxiety, depression, and disruptions in interpersonal relationships (Foa & Rothbaum, 1998; Katz & Burt, 1988; Kilpatrick, Veronen, & Resick, 1979a, 1979b; Petretic-Jackson & Tobin, 1996; Resick, et al., 1981; Resick & Callioun, 1996). Holstrom and Burgess (1978), in their work with survivors, reported frequent occurrences of flashbacks, temporary disdain for physical touch, and many other sex-related symptoms. What is also significant is the duration of the effects that rape has upon a woman. Victims typically display a high level of distress within the first weeks after an incident. This distress peaks in severity by approximately three to four weeks after the assault and continues at this level for at least the next month. Gradually the symptoms begin to improve over the third month post-assault (Davidson & Foa, 1991; Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992). Fear, anxiety, sexual dysfunction and self-esteem continue to show impairments and evidence of the assault for 18 months or more after the assault occurred (Resick, 1987). Because the symptoms remain present for a considerable amount of time following the incident, researchers are better able
to assess them rather than being challenged by time and brevity.

Results of a study conducted by Kilpatrick, Resick and Veronen (1981) demonstrated that victims are likely to experience, for prolonged periods of time, such characteristic behaviors and symptoms as anxiety and fear. Although the sample size for the study consisted of only 20 respondents, the study is beneficial because of the usage of a matched-pairs design enabling comparisons over periods of time up to one year. Symptoms last for approximately three months for most women and extensive lengths of time for approximately 25% of female victims (Hanson, 1990). Other possible psychological ramifications of a rape include insecurity, low self-esteem (Janoff-Bulman, 1992; Janoff-Bulman & Frieze, 1983), guilt, shame, and belief of rape myths (Roth & Lebowitz, 1988). The most common of these symptoms are anxiety, fear, depression, sexual dysfunction, and PTSD (Ellis, Atkeson, & Calhoun, 1981; Ellis, Calhoun, & Atkeson, 1980; Kilpatrick, Resick & Veronen, 1981). In a sample of 32 females (ages 15-42), it was found that following an assault women experienced high levels of psychological distress including depression, anxiety, and tension. These women also reported high levels of self-blame and self-disgust (Petrak, Doyle, Williams, Buchan, & Forster, 1997). Such results should be interpreted with caution, however, because of the small sample size.
When a woman is assaulted, the ramifications of such an experience are extensive. Many women display symptoms classifiable according to the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (1994), with the diagnosis of Post-traumatic Stress Disorder (PTSD; Matsakis, 1992). Prior to the establishment of this diagnosis, studies found indications that survivors of sexual assault displayed clinically significant levels of anxiety and depressive symptoms (Atkeson, Calhoun, Resick, & Ellis, 1982; Frank, Turner, & Duffy, 1979; Kilpatrick, Veronen, & Resick, 1979c). An estimated 94% of rape victims meet the criteria for a diagnosis of PTSD immediately after the assault, while 46% still meet that same criteria three months later (Rothbaum, et al., 1992). Other studies have indicated that such rates are not as high. Although recent studies using PTSD diagnostic criteria indicate that the disorder occurs frequently after a sexual assault (Foy, 1992), Kilpatrick and associates (1987) observed lifetime rates of PTSD ranging from 11% following an attempted assault to 57% following a rape (Kilpatrick, Saunders, Veronen, Best, & Von, 1987).

PTSD is an anxiety disorder recognized by the American Psychiatric Association since 1980. The criteria for this diagnosis include re-experiencing the trauma (dreams, flashbacks), avoidance behaviors, hyper-arousal (insomnia, irritability), and the persistence of symptoms for at least one month after the
third of the victims acknowledged a moderate decrease in sexual activity and a delay in resuming sexual activity following a rape. In a follow-up portion of this study, victims were questioned about their aversions. Types of aversions were categorized by physical, mental, subjective, affective, and general. Flashbacks were frequently reported. Victims also reported changes in the type of sexual activities in which they participated. Of the activities that victims found distressing, oral sex was the most frequently reported, while others found all types of sexual activities distressing (Burgess & Holmstrom, 1979).

Many of the victims in the Burgess and Holmstrom (1979) study experienced vaginismus (physical pain and discomfort) when they resumed sexual activity. In addition, difficulty orgasming was reported by 41% of the victims. Women who were raped, as their first experience of intercourse, were more likely to develop vaginismus than the other victims in the study (Burgess & Holmstrom, 1979). It is not uncommon for a rape survivor to express a decrease in sexual activity and/or satisfaction with sexual activity they have engaged in since the assault occurred (Petretic-Jackson & Tobin, 1996).

**Women, Rape Myths, and Feminism**

People who accept rape myths are more likely to hold sexist attitudes toward women. They accept more traditional male and female roles and believe that women's social roles and rights should be restricted and men's
should not. Thus, these individuals who believe rape myths, hold non-feminist views of women (Anderson & Cummings, 1993; Costin, 1985; Ford, Livag-McLamb, & Foley, 1998).

Victims who accept rape myths are more likely to display lower levels of self-esteem than victims who do not accept them (Schwarz & Brand, 1989; Bohner, Weisbrod, Raymond, Barzwi, & Schwarz, 1993). However, it is important to note that women who subscribe to rape myths are also less likely to report the assault (Anderson & Beattie, 1995). Attitudes that blame a rape victim interfere with the healing process. Female victims who accept rape myths and hold these attitudes report less successful recovery outcomes than women who reject rape myths (Katz & Burt, 1988). Victims also tend to hold more anti-feminist and conservative views concerning the roles of women based upon results collected from a sample of 57 college women in a small private college in the mid-Atlantic region (not a representative sample even to other college students). Such views include the belief that women should not expect the same freedom as men and that women should not be sexually active before marriage (Hull & Burke, 1991).

Rape myths not only imply greater responsibility on the part of a woman, but also suggest, although indirectly, that women can avoid being raped if they follow certain rules and instructions. Belief in these myths
enables the establishment of a stereotype of the typical rape victim. This implies that only women who conform to this stereotype or fit the description are in danger of being raped. Therefore, a woman who accepts such myths also assumes that she is an unlikely target of rape or that she can avoid being raped as long as she follows certain mythical rules (Bohner, et al., 1993).

A woman's attitude towards her own social roles appears to be a possible predictor of assault. Women who hold more traditional, non-feminist, beliefs about the roles of women have a greater likelihood of being sexually assaulted than women who hold a more pro-feminist ideology [r(111)=.41, p<.001] (Anderson & Cummings, 1993). However, such beliefs do not seem to affect whether or not force or threat of force is used during the assault. This was determined after the administration of the Sexual Experience Survey (the same survey utilized in this study, Koss & Oros, 1982), and the Sexist Attitudes Toward Women Scale (Benson & Vincent, 1980) to 112 college women (Anderson & Cummings, 1993). Research utilizing college age students is beneficial because of the usage of a college-student sample in this study. Additional research by Baron and Straus (1986), and by Sanday (1981), determined that women who had experienced a rape also held more traditional, non-feminist views of women, although no causal relationships could be determined.
Survivors and Self-Esteem

The threat of rape can impair a woman's self-esteem (Bohner et al., 1993). Rape, as defined by Brownmiller (1975), is "a conscious process of intimidation" (p. 5). This intimidation is expected to reduce a woman's self-esteem (Costin & Schwarz, 1987). The act of forcing a woman to have intercourse is an act of degradation, humiliation, and disrespect. All of these attack a woman's feelings of self-worth, and the effects are greater if the woman is violated by someone she cares for, or even loves (Gamache, 1991). Although causality could not be determined, several studies have indicated a significant relationship between a woman's self-esteem and whether or not she has been raped. Women who had survived a rape had lower levels of self-esteem than their female counterparts (Baron & Straus, 1986; Riger & Gordon, 1981; Sanday, 1981).

Research conducted by Schwarz and Brand (1983), reproducing the methodology from the Schwarz and Strack (1981) study, involved women completing personality questionnaires before or after they had read a realistic description of a rape incident. Women who had read about the incident prior to completing the questionnaire reported lower levels of self-esteem, lower trust of others, and more traditional sex-roles for women than the women who completed a questionnaire prior to exposure to the rape description (Schwarz
Rape myth acceptance is inversely correlated with self-esteem; the greater the level of rape myth acceptance, the lower the reported level of self-esteem (Burt, 1980). In the study described by Schwarz and Brand (1983) it was also noted that when rape was salient, women with stronger beliefs in rape myths tended to report lower levels of self-esteem than women with weaker rape myth beliefs.

Bohner et al. (1993) replicated the Schwarz and Brand (1983) study using a sample of 50 vocational students and 84 college students. They found that high accessibility or exposure to rape leads to lower reports of self-esteem ($t=2.74$, $df=12$, $p<.02$), whereas women who do not accept or believe in rape myths seem to have higher self-esteem. Women who do accept rape myths appeared to be unaffected ($t=-1.22$, $df=7$, $p>.02$; Bohner et al., 1993). This is contrary to the results of the Schwarz and Brand (1983) study and other previous findings as well. However, the 50 vocational students were surveyed in Germany. Thus, cultural differences could have affected the results.

**Men as Perpetrators of Assaults and Sexually Aggressive Behaviors**

With a 25% prevalence of rape on college and university campuses, the question then becomes who is committing these assaults. Research pertaining to “sexual aggression in dating relationships is in its infancy” (Skinner & Berry,
1996, p. 55). Thus, to answer this question, studies have been conducted that examine the self-reported likelihood of committing an assault as well as the factors contributing to a man engaging in sexually aggressive behaviors rather than an assault (Skinner & Berry, 1996).

According to Koss (1988, 1998), results from the Sexual Experience Survey (administered to 6,159 college students) demonstrated that 35% of the college men surveyed anonymously admitted that they would commit a rape if they knew they could get away with it. These men who reported this desire were more similar to convicted rapists on a variety of dimensions such as hostility toward women and attitudes toward women. One in twelve men responded that he had committed an act that met the legal definition of rape (Koss, 1988, 1998). A similar study conducted by Smeaton and Byrne (1987) found that 71% of men admitted they would force unwanted sex upon a woman they knew, although the sample used was nowhere near equal in size to that utilized by Koss (1988, 1998).

Fifteen percent of the college males surveyed reported forcing sex on their dates (Rappaport and Burkhart, 1984), whereas 60% of the 352 introductory psychology male students indicated some likelihood of raping or using force with women (Briere and Malamuth, 1983). Research shows that 25% to 60% of college men have engaged in some form of sexually coercive
behavior. Only 39% of the men sampled denied coercive involvement; 28% admitted to having used a coercive method at least once; and 15% admitted they had forced a woman to have intercourse at least once (Rapaport and Burkhart, 1984).

Miller and Marshall (1987) polled 795 undergraduate students and discovered that 15% of the males also admitted to having forced sexual intercourse while dating, a study worth noting because of the large sample and usage of college students. These men who admitted to committing an act that met the legal definition of rape also appear to be more sexually promiscuous (Kanin, 1985; Malamuth, Sockolske, Koss & Tanaka, 1991). Koss and Dinero (1987; 1988; 1989), in support of these findings, demonstrated that 25% of the male respondents, from a large national sample of college and university students, were involved in some form of sexual assault. Studies utilizing college students certainly have limitations in terms of generalizability, but are very pertinent to this study which purposefully studies college students and rape during the first semester of college.

Similar results were yielded from a study of 814 males ranging in age from 18 to 59 years at a large urban university. Twenty-six percent of the males surveyed reported they had perpetrated a sexual assault (Abbey, McAuslan & Ross, 1998). Although the sample size is large, it is important to
recognize the varying ages of the respondents.

A study conducted by Muchlenhard and Linton (1987) yielded the following results: 57% of the men surveyed admitted to perpetrating sexual assault; 51% reported a perpetration during college. In this study and the study by Rapaport and Burkhart (1984), the most frequent means employed by men when perpetrating was to ignore the victim's protests and statements of "no" (Muchlenhard & Linton, 1987).

Men and Myths

Men who self-report the greatest likelihood of raping a woman also seem to express a consistent pattern of beliefs about rape. Men who accept stereotypical myths about rape are more tolerant of rape, more blaming of rape victims, and more likely to rape if they knew no one would find out (Bohner, Reinhard, Rutz, Sturm, Kerschbaum & Effler, 1998; Ford, Liwag-McLamb, & Foley, 1998; Koss, Leonard, Beezley & Oros, 1985; Malamuth & Check, 1980; Malamuth, Heim & Fesbach, 1980; Muchlenhard & Linton, 1987; Reilly, Lott, Caldwell, and DeLuca, 1992; Tieger, 1981). Because of the number of studies conducted that have yielded the same results, the reliability and strength of the relationships is high and can be utilized with confidence. In addition, Kanin (1984) discovered that men who self-reported date raping a woman tended to blame the female and her actions for the incident. It is not
just male perpetrators who blame the victims.

A study conducted by Burt (1980) revealed that 50% of the random sample blamed women for an incident of rape. Field (1978b), in a study of the general public and police officers, concluded that police officers have similar attitudes towards rape victims as convicted rapists. Burt (1980) first defined rape myths as "prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists" (Burt, 1980, p. 217).

Many studies have attempted to replicate Burt's (1980) findings. In doing so, they have found a correlation between rape myth acceptance and violence (Burt & Albin, 1981; Check & Malanuth, 1985; Fonow, Richardson, & Wemmerus, 1992; Murphy, Coleman, & Haynes, 1986; Mynatt & Allgeier, 1990; Quackenbush, 1989; Reilly, et al., 1992; Senn & Radtke, 1990; Ward, 1988). The greater the number of studies conducted yielding the same results, the stronger the relationship are that have been established from the data.

One of the most important cognitive factors associated with sexual assault is belief in rape myths (Lonsway & Fitzgerald, 1994). However, this piece of research has been criticized for a lack of precise definitions (England, 1997). Without clear definitions, it is difficult to fully understand exactly what was studied and weakens the strength of the findings must be interpreted with caution.
Lonsway and Fitzgerald (1995) then elaborated upon this initial study and discovered a strong relationship between hostility toward women and rape-myth acceptance. Rape-supportive attitudes and beliefs are predictors of a strong likelihood to rape or to use sexual force according to results yielded from 352 male introduction to psychology class students. Of these 352 males, 99 (28%) indicated some likelihood of both raping and using force (Briere & Malamuth, 1983), a sample similar to that of this study, and a more than adequate sample size.

In a study conducted by Mills and Granoff (1992), 106 males in an undergraduate English class were polled. Ten percent believed women want men to be forceful with sex, and 50.9% believed that women sometimes say "no" to sex when they really mean yes. One reason for this was that women need to say "no" on an average of 2.6 times before the male would believe that she really means no. One out of every six males in this study also admitted to actions that meet the legal definition of sexual assault. One-third of the male subjects admitted to making continual sexual advances even after a woman had said "no" (Mills & Granoff, 1992). This study clearly demonstrated the myths that still exist in our culture and such results are supported by evidence from other studies.

Myths that women both enjoy and are responsible for being raped were
used by convicted rapists to excuse and justify their crimes as well as to deny the negative effects their actions had upon their victims. The vast majority of rapists in this study never thought of the possibility of prison because they did not define their actions as wrong (Scully & Marolla, 1984, 1985a, 1985b). Rape myths both contribute to rape and help a perpetrator to deny his offense (Alford & Brown, 1985).

Burt (1980) investigated correlates of rape myth acceptance for a sample of approximately 600 adults. Rape myth acceptance was a component of a larger related belief system. This system included beliefs about gender roles, sexuality, and violence. Attitudinal variables of sex-role stereotyping, acceptance of violence against women, and adversarial sexual beliefs had the strongest relationship with rape myth acceptance (Burt, 1980). Krulewitz and Payne (1978) reported that in a sample of college students non-feminist views about women's roles were related to attitudes toward rape. Pro-feminist men gave less support to the myth that a victim wanted to be raped than their non-feminist counterparts (Krulewitz & Payne, 1978).

**Men and Feminism, Sex Role Stereotyping, and Aggression and Attitudes Toward Women**

Sex-role orientation has been found as a primary factor contributing to sexually aggressive behaviors perpetrated by men (Check & Malamuth, 1983)
but not the severity of the behavior (Rapaport & Burkhart, 1984). Mosher and Anderson (1986) discovered that men who hold more traditional and stereotypical sex roles tend to have less fear, guilt and shame when imagining themselves committing a violent rape as compared to men who hold more feminist views of women. In 1988, Burke, Stets and Pirag-Good concluded that men who held more feminist views, rather than stereotypical sex role beliefs, pertaining only to emotional expressiveness and relationship orientation, were more likely to engage in sexually aggressive behaviors but not sexually assaultive behaviors.

Feminist views about the roles of women were related to attitudes toward rape. Calhoun and Townsley (1991) observed that it seemed that pro-feminist men were less likely than non-feminist men to believe that a woman wanted to be raped. Pro-feminist women were more likely than non-feminist women to label a forced sexual situation as a rape (Calhoun & Townsley, 1991).

Men who supported stereotypical myths about rape also held adversarial views about relationships between men and women. These same men condoned violence toward women and held traditional, non-feminist views of the roles of women (Koss, et al., 1985; Muehlenhard & Linton, 1987). Male perpetrators seem to hold very conservative views of the roles of women,
more restricted views of the freedom and independence for women, were very stereotypical in their views of women, tended to see women as subservient, and expected women to be passive in their relationships with men \( F (3, 56) = 8.61; (p < .001) \). These results, obtained from a study of 20 incarcerated rapists, 20 non-sex-related violent offenders, and 20 matched respondents from a control group in a vocational training program in Los Angeles, CA, supported their hypothesis that rapists have more traditional and conservative attitudes toward women than do violent offenders of non-sexual crimes (Scott & Tetrault, 1986). Similar to other findings, the sample size of this study is small but the findings are strength by the consistency of the results with other studies.

A study of 72 college males found that sexist attitudes toward women were positively correlated with rape-related attitudes and beliefs, a self-reported likelihood of forcing sex, and sexual aggression (Ryan & Kanjorski, 1998). Marshall and Hambley (1996) conducted a survey of 27 male rapists (a very small sample size) and found that these males reported higher levels of rape-myth acceptance and hostility/aggression towards women. Although the sample may seem small, it is significant because of the difficulty encountered in acquiring a sample of rapists. However, results should be read with caution. The small sample makes generalizability to other samples of rapists very difficult.
Based on previous research, it appears that men's attitudes toward women and their previous sexual experiences have been correlated with the likelihood of committing an act of rape according to a sample of 2,972 college males (Koss & Dinero, 1987). As previously mentioned, such a study provides results with confidence when such a large sample is utilized. In addition, personality and attitudinal factors are related to men's reports of aggressive behavior towards women (Koss et al., 1985; Koss & Dinero, 1987; Muehlenhard & Linton, 1987; Rapaport & Burkhart, 1984). Men who have admitted to assaulting a woman tended to have views of women that were rather traditional and non-feminist. These views seem to support the higher levels of aggression toward women also held by perpetrators (Berkowitz, Burkhart, & Bourg, 1992; Burkhart & Fromuth, 1991; Burkhart & Stanton, 1988).

Evidence supports the hypothesis that rapists have a higher level of hostility toward women than do other men (Armentrout & Hauer, 1978; Gebhard, Gagnon, Pomeroy, & Christenson, 1965; Groth, 1979; Rader, 1977). Further evidence was found by Malamuth (1996) who surveyed a sample of men ages 18 to 47. Results indicated that hostility toward women, acceptance of violence, and a preference for sexual dominance were positively related to self-reported sexual aggression.
Men who said they would find being sexually forceful with women sexually arousing also accepted rape-supportive attitudes and rape myths. Malamuth, Check, and Briere (1986) discovered that these men also tended to approve of aggression and violence towards women in non-sexual situations, and supported sexual coercion. Sexually aggressive men had very conservative attitudes toward female sexuality, reported greater rape-myth acceptance, and reported more traditional beliefs about women’s roles (Koss, 1981).

A study worth noting, because of the origin of the sample, is one conducted by Osland, Fitch & Willis (1996). A sample of 159 college men at a small Protestant church-affiliated liberal arts college was surveyed, 30% of which was college freshmen. Men who reported a high likelihood to rape or use force sexually also reported higher levels of rape-myth acceptance, greater justification for violence against women, and held more gender stereotypical attitudes toward women (Osland, Fitch & Willis, 1996). Although the sample is a reasonable size, it is important to note the lack of generalizability because of the source of the sample, a small religiously affiliated academic institution. However, this study utilizes a sample from a medium-sized Catholic college and faces similar limitations.

Perpetrators and Self-Esteem

According to a study by Bohner and colleagues (1993), men with high
acceptance rates of rape myths also had high reported levels of self-esteem ($t=2.23, df=43, p<.04$). Exposure and salience of rape seemed to increase the self-esteem of the men as well as the level of rape-myth acceptance. Men who read a news article about a rape or violent assault reported higher levels of self-esteem and rape-myth acceptance after reading the piece than men who read an article about a sporting event (Bohner, et al., 1993). This corroborates the claims of feminist researchers that the social reality of rape, in combination with cultural myths about rape, may foster gender inequality. However, as noted earlier, this study consisted of a sample of 50 males from a vocational school in Germany (Bohner, et al., 1993) where cultural myths may have had a different effect upon response data than in the United States. Beliefs pertaining to gender inequality are parallel to feminist and non-feminist views of women and women's roles in society which have been shown to correlate with self-esteem (Brownmiller, 1975).

**Perpetrators and Sexual Experience**

Of male college students surveyed (1,846) 23% admitted to instances of sexual intercourse with a woman against her will (Koss & Oros, 1982). Similar findings by Giarusso, Johnson, Goodchilds, and Zellman (1979) determined that the sole variable to emerge as a significant predictor was self-rated perceptions of relative sexual experience. Sexually aggressive males were more
sexually experienced than their less force-oriented counterparts (Kanin, 1977).

Briere and Malamuth (1983) conducted a study comparing the ability of attitudinal and sexual variables to predict males’ (52 college males in the sample) self-reported likelihood of sexually aggressive behavior. The one sexual variable that was significantly related to sexual aggression was sexual experience. Males who reported a prior history of more sexual experience also reported higher levels of sexual aggression and likelihood to engage in sexually aggressive acts against women (Briere & Malamuth, 1983).

Conclusions

It is clear that the epidemic of rape is detrimental to its victims, but we still seem to know little about the perpetrators. It is very common for female victims of sexual assault to develop Posttraumatic Stress Disorder or related symptoms such as depression, low self-esteem, and anxiety. In addition, we know that these women are likely to have difficulty engaging in sexual activity, if they do not avoid sexual interactions with males altogether. Lastly, these women will begin to take the blame for the assault, often leading to more stereotypical sex roles for themselves.

As for the male perpetrators, we now understand some contributing factors such as high levels of hostility toward women, sex role stereotyping, and believing in rape myths. Much more research is needed to better understand
the psychological aspects underlying what creates, in a man, the capacity to engage in sexually aggressive or assaultive behaviors.

Although there is a considerable amount of research addressed within this chapter, it is important to keep in mind the strengths and limitations of such studies and the effect this has on the foundation of this study. Many of the variables have not been examined thoroughly in previous studies, with a lack of research having been conducted recently. However, many of the studies are very strong in terms of validity (measuring what it was designed to measure), and reliability (if the results are repeatable when variables are remeasured, Goodwin, 1995).

Large samples and data collection were used by many of the studies which helped to strengthen the validity and reliability. Many of the studies yielded similar results indicating a certain degree of reliability in terms of the behaviors and attitudes measured. The more studies that have yielded the same results, the greater the confidence that this study will find similar results.

In addition, by integrating many of the variables (which has not been previously conducted), this study may establish new relationships between these behaviors and characteristics.

The variety of previous research, such a studies conducted in other countries or a sample unique from that utilized in this study, provided
guidance in the formulation of this study, but may also assist to explain any differences between the results. In general, the previous research appears to provide a strong and confident foundation for the formulation of this study. This study may also serve to clarify results that were varied or contradictory in previous research studies.
CHAPTER III

Methodology

Introduction

A questionnaire, consisting of multiple scales, was administered to the same sample on two occasions. This enabled the establishment of the relationships between sexual experiences and the variables depression, anxiety, self-esteem, attitudes toward women, rape myth acceptance, social desirability, hostility toward women (men only), sexual aversion (women only) and self-esteem.

Subjects

The pool of approximately 850 participants invited for this study were first-year students enrolled in the Fall 1997 Skills class offered by the Department of Freshmen Studies at Seton Hall University (SHU) in South Orange, New Jersey. The exact number of eligible subjects was uncertain due to students continuously adding into or withdrawing out of the course. All 850 students were given an opportunity to take part in the research study, but were not required to participate. The investigator followed the guidelines and procedures set forth in the APA Ethical Principles of Psychologists with regard to an individual’s rights to either withdraw from participation in the research at anytime or to refrain from participation completely (APA, 1981). Thus,
participation in this study was completely voluntary. Students were offered participation as one of many options from which they would receive extra credit.

**Instruments**

**Beck Depression Inventory**

The Beck Depression Inventory (BDI; Beck, 1978) is an instrument designed to be administered to men and women in order to measure the cognitive, motivational, behavioral, and somatic symptoms of depression experienced by each individual. This 21 item scale employs a four-point Likert-type rating system resulting in scores ranging from 0 to 63, with high scores reflecting high depressive feelings and low scores connoting low or no depressive feelings (Beck, 1978).

Test-retest stability data from four separate client populations (varying intervals for psychiatric patients, varying intervals for non-psychiatric patients, two-week interval with undergraduates, and a one-week interval with undergraduates) indicated the following ranges of alpha scores: .48 to .86 for psychiatric patients, .60 to .90 for non-psychiatric patients (Garbin, 1988), a correlation of .90 for undergraduates in the two-week interval group (Lightfoot & Oliver, 1985), and .64 for undergraduates in the one-week interval group (Zimmerman, 1986). One of the main purposes of using this instrument is to
detect changes in the reported levels of depression, thus resulting in many
different test-retest estimates.

The definition of depression has been refined several times over the past
three or four decades. The BDI addresses many of the criteria for a diagnosis
of depression, but not all of the criteria. This was deliberate to avoid higher
rates of false positives (Steer & Beck, 1985). Beck concluded that based upon
the purpose of this instrument, content validity seemed high (Beck, 1967).

The BDI was not designed to discriminate individuals with different
psychiatric diagnoses (Beck, 1967). Many studies have, however, attempted to
show that the BDI can be used to differentiate psychiatrically diagnosed
individuals from psychologically healthy individuals (Steer, et al., 1986). The
BDI can discriminate between dysthymic and major depressive disorders as
well as differentiating between generalized anxiety disorders and major
depressive disorders. However, the BDI was not originally designed to display
strong discriminant validity (Steer, Beck, Brown and Berchick, 1987).

However, much evidence has been found that supports the opposite including
the studies by Steer and associates (Steer, et al., 1987; Steer, et al., 1986).

To establish construct validity, a number of studies have been conducted
( Beck, Steer, & Garbin, 1988). For example, it was hypothesized that
hopelessness would be associated with depression. Beck, Weissman, Lester,
and Trexler (1974) discovered that scores on the BDI were positively correlated with scores on the Beck Hopelessness Scale (BHS; Beck, & Steer, 1988) in all six of the normative samples utilized. These six normative samples consisted of males and females ranging in age. The first group were individuals with varying diagnoses such as depressive neuroses, anxiety neuroses, personality disorders, schizophrenia or other disorders. The remaining five groups were individuals with major depression (single episode), major depression recurrent, dysthymic disorder, alcoholics and heroin addicts (Beck & Steer, 1988; Beck, Steer & Garbin, 1988).

Concurrent validity was established via a meta-analyses yielding a mean correlation of $r = .72$ between clinical ratings of depression and the BDI as completed by psychiatric patients. A mean correlation of $r = .60$ between clinical ratings of depression and the BDI for non-psychiatric individuals also emerged (Beck, Steer, & Garbin, 1988). Correlations between the BDI, the MMPI-D and the Zung Self-Rating Depression Scale (Zung, 1965) with 101 psychiatric inpatients and 99 inpatient drug abusers were all significant with scores of .55 or greater for both groups. Often, the BDI is used in conjunction with the Hamilton Psychiatric Rating Scale for Depression (HRSD; Hamilton, 1960; Hedlund & Vieweg, 1979). Correlation coefficients between these two scales have been found to be significant beyond the .001 level for all six
normative sample groups (Beck, Steer, & Garbin, 1988).

The BDI has been factor analyzed with both clinical and non-clinical populations (Beck, Steer, & Garbin, 1988). The number of factors extracted depends upon the population being sampled (Beck & Steer, 1987). Based upon this information, and the wide usage of the BDI, it clearly is a well established scale. To measure levels of depression at a certain point in time, the BDI appears to be the best choice of instruments. Many researchers have been able to establish strong levels of reliability and validity. Researchers continue to expand the validation of the scale through the wide areas and types of research in which the BDI is used.

As demonstrated by previous research, the BDI is a well established measurement of depression and depressive symptoms. Because of the consistent reporting of depression by victims of sexual assault, it is important that an accurate means of recording such symptomology be utilized. There is an adequate amount of research to provide confidence in the usage of this instrument and to be assured regarding its validity and reliability.

**Self-Rating Scale**

The Self-Rating scale (Rosenberg, 1965), otherwise recognized as a self-esteem assessment, is a ten-item Likert-type scale. Individuals are asked to respond to positively and negatively worded statements which are interspersed
randomly to reduce the risk of a response set. Answers range from strongly agree (a score of 4) to strongly disagree (a score of 1; Rosenberg, 1965).

Although the reproducibility rate was found to be 93% and the Guttman model has shown that the questions all relate on the same dimension, Rosenberg (1989) also stated that this does not mean that these items are all part of the same universal definition of self-esteem. Beyond this, the scale has not been validated, although many studies have utilized the Self-Rating Scale. This is because there has been a lack of a criterion group. "If this scale actually did measure self-esteem, then we would expect the scores on this scale to be associated with other data in a theoretically meaningful way" (Rosenberg, 1989, p. 18). Rosenberg discovered that people with low self-esteem, according to this scale, were also depressed and expressed feelings of unhappiness, gloom, discouragement and other similar characteristics. Other such correlations were found with psychophysiological indicators and peer-group reputation. Based upon this and other evidence, Rosenberg (1965) concluded that the Self-Rating Scale was reliable and valid.

More recently, Goldsmith (1986) commented that, although this scale was originally constructed as a Guttman scale, it is most often used as an additive scale based upon a four- or five-point Likert-type format as recommended by Crandall (1973) who found high levels of reliability and
validity. But, there is still much controversy surrounding this scale. Because this scale purports to measure one characteristic, self-esteem, then it should be homogeneous or unidimensional (Nunnally, 1978). Every item should measure the same construct (Danes & Mann, 1984), and all items should load on a single common factor (Green, Lissitz, & Mulaik, 1977). It has been revealed by O'Brien (1985) that the Self-Rating scale has one dimension while other researchers have found that the scale contains two factors (Dobson, Goudy, Keith, & Powers, 1979; Hensley, 1977; Hensley & Roberts, 1976; Kaplan & Pokorny, 1969). In addition, three factors were found by Alwin and Jackson (1981).

Taking this information into consideration, Goldsmith (1986) conducted a further analysis of the Self-Rating scale. Data from the subject pool, consisting of 33 males and 60 females, all college students, and 21 male and 58 female grocery shoppers produced validity coefficients of .96 and .90 respectively. It is clear, from this research, that the internal consistency of the scale is quite high. Also, most of the variance is associated with the common factor, self-esteem (Goldsmith, 1986).

The research pertaining to this scale is not as extensive as one might prefer. Though the debates aroused by this scale have not yet been settled, it is still a popular measure of self-esteem and an effective one. The scale is brief,
and much research supports its unidimensionality. Although not all agree with this conclusion, usage of this scale for this research study is based upon the premise that it is a valid and reliable means of measuring self-esteem.

Although it would be preferable to have a scale with more information concerning the original construction, including the reliability and validity, this scale has become one of the most frequently used measurements of self-esteem, especially when studying or working with adolescents. The scale is a brief instrument, a useful quality in extensive research studies, and appears to measure the construct thoroughly.

Rape Myth Acceptance Scale

This form of the Rape Myth Acceptance Scale (Burt, 1980; Newman & Colon, 1994) is an elaboration of Burt's (1980) scale of the same name with newly added questions by Newman and Colon (1994). It also incorporated questions from Field (1978a). This Likert-type scale consists of 24 questions, 13 of which are from Burt's (1980) scale. Burt's (1980) scale seemed to be a strong basis for utilization as a scale that measures the effects which attitudinal, experiential, and demographic variables have on an individual's acceptance of rape myths (Ashton, 1982).

A factor analysis of Burt's (1980) Rape Myth Acceptance Scale, conducted by Briere, Malamuth, and Check (1985), yielded four independent
factors: 1) disbelief of rape claims, 2) victims responsible for rape, 3) rape reports as manipulation, and 4) rape only happens to certain kinds of women.

Based upon the established reliability and validity of Burt's (1980) scale, Newman and Colon (1994) utilized his scale to develop a new rape myth scale to construct a measure that addresses this issue more thoroughly by specifying dimensions of rape myths. The sample consisted of college students because of the high incidence of rape among this population (Makepeace, 1981; Miller & Marshall, 1987; Rapaport & Burkhart, 1984; Shotland & Goldstein, 1983).

When first administered, the scale consisted of 37 items; all of Burt's (1980) original 19 items, 10 items from Field (1978) based upon their face validity for measuring one of the four factors derived by Briere et al. (1985), and 8 newly constructed items chosen for the same reason. All items were interspersed. From these 37 items, 24 with sampling efficiency close to or greater than .90 were selected for factor analysis. Thirteen of the items were from Burt (1980), four were from Field (1978), and six were newly constructed items. Four factors were derived and accounted for 32% to 5% of the total variance. Each factor had at least five items loading on it, thus accounting for 19% to 32% of the explained variance. Inter-correlations between the factors resulted in coefficients ranging from .42 to .54. In order to measure reliability of the new scale, a Cronbach's alpha was performed and yielded a value of .74.
There is clearly a limited amount of information concerning the reliability and validity of this scale. Little research has been done utilizing this scale because of the specificity and uniqueness of its construct. However, there are a limited number of scales addressing this same or similar issues thus making this scale attractive. Burt (1980) completed quite an extensive amount of research in the area of rape myths and attempted to create a thorough and well-established measurement tool. To assess rape myths ("prejudicial, stereotyped of false beliefs about rape, rape victims and rapists"; Burt, 1980, p. 217), this scale certainly seems to be the most thorough.

Attitudes Toward Women Scale

In 1972, Spence and Helmreich created a 55-item test of attitudes toward women especially designed to detect liberal, profeminist views (high scores; Luneborg, 1974). This was done in response to findings by Kirkpatrick (1963), that the Feminist-Antifeminist Belief Pattern Scale was unsatisfactory (Doyie, 1975). The normal ranges for this test were acquired from a group of undergraduate psychology students at the University of Texas (Luneborg, 1974).

The scale was then shortened to 25 items and administered to members of NOW (National Organization of Women) and non-members. These scores
were similar to those originally determined to be within normal range, by Spence and Helmreich (1972). The findings supported the validity of the scale as a measurement of feminist attitudes (Kilpatrick & Smith, 1974).

It has been noted that little information has been publicized concerning the reliability of the Attitudes Toward Women Scale (AWS; Yoder, Rice, Adams, Priest, & Prince, 1982; Spence & Helmreich, 1972, 1978; Spence, Helmreich, & Stapp, 1973, 1974). As for internal consistency, the only statistic reported was a coefficient alpha of .91 for the 15 item version acquired from a sample of college students of an unspecified size. No test-retest information has been provided (Yoder, et al., 1982; Spence & Helmreich, 1978).

To assess the reliability of the AWS, the United States Military Academy’s Project Athena administered the test to cadets in 1976. Results provided evidence that the AWS is a reliable measurement. Results included, for a test and a retest given after a two-and-a-half-month interval, .743 for males and .797 for females and a coefficient alpha of .831 for the first administration and a .81 for the second, thus supporting high internal consistency (Vitters, 1978; Yoder, et al., 1982).

As one of the most commonly used scale for measuring attitudes toward women, the AWS exists in a number of short forms. All versions address roles,
behavior, and beliefs about what is and what is not appropriate for women (McKinney, 1987). Based upon responses to the items contained within this instrument, respondents who endorse items reflecting a "positive attitude toward women" (women are equal to men; Hull & Burke, 1991, p. 1) will be referred to as pro-feminist. Respondents who endorse items indicative of a "negative attitude toward women" (women as subordinate and beneath men; Hull & Burke, 1991, p. 1) will be referred to as anti-feminist.

The reliability and validity of the instrument may not be as strong as a researcher would desire, but this is another instrument measuring a very specific construct with a limited number of other instruments from which to choose. Based upon the previous research, the establishment of validity and reliability, and the importance of the construct this instrument purports to measure, the short form is a more than adequate measurement tool. Had this study been briefer and shorter in length in terms of the questionnaire, one of the longer forms of this tool would have provided greater confidence, but the short form seems most appropriate without compromising the design of the research study.

**Sexual Experience Survey**

The 12 item Sexual Experience Survey (SES; Koss & Oros, 1982), with a yes or no response option, requires individuals to report sexual experiences
including sexual aggression, victimization, and overt rape. The instrument has been shown to yield the same results for college students regardless of sex and race. It was constructed as an alternative approach to sampling in rape research. Thus, it has been difficult to establish validity for an instrument used to identify sexual activities and victims of rape considering the sensitivity of the issue and the lack of research in this area in general (Koss & Oros, 1982).

To assess validity, correlations were measured between subjects’ responses on the SES and responses to structured interview questions. Such correlations yielded values of .73 for women and .61 for men (Koss & Gidycz, 1985). In addition, a test-retest, when administered two weeks apart, produced a value of .93 (McKelvie & Gold, 1994; Koss & Gidycz, 1985).

Comparisons between subject responses on the SES and clinical interviews provided evidence for construct validity. The Pearson correlation from this comparison was .73. Only 3% of the victims who reported being sexually assaulted on the SES disconfirmed this during an interview (Gidycz & Koss, 1991). Further analysis revealed internal consistency reliabilities of .74 for women and .89 for men. Test-retest reliability over a one-week period of time was .93 (Koss & Gidycz, 1985).

Test-retest reliability suggested that the SES yields stable responses. Internal consistency reliability is at an acceptable level, although some diversity
may exist among items suggesting that sexual aggression and victimization are not escalating and interlocking events (Koss & Glóycz, 1985). An additional test-retest was performed by Finley and Corty (1993) by administering the SES to 18 women and 11 men, all college undergraduates. With a seven-day time gap between testings, a Kappa coefficient (Cohen, 1960) was calculated in order to examine the consistency for the data over time. Although the sample size was small, items seemed in agreement with scores of .40 or higher (Finley & Corty, 1993).

Similar to other scales utilized in this study, infrequent previous usage of this scale has led to limited data concerning reliability and validity. This scale, like any other, is vulnerable to false reporting, but the reliability and validity of the scale seem less significant because of the nature of the instrument. Thus, there is no need for strong reliability and validity as there is with other instruments because this is primarily a measurement of self-reporting of sexual experiences. Of the scales available measuring sexual experiences, this was the scale with questions closest to those desired for the purpose of this research study. Consequently, this scale is appropriate and there is confidence in its use as a strong and appropriate measurement of the desired variable. Koss (1981, 1987, 1988, 1993a, & 1993b) has conducted much research addressing the issue of rape and sexual assault and has utilized
this scale frequently. It has proven to be an effective measurement of sexual experiences ranging from consensual sex to forced intercourse (Koss 1981, 1987, 1988, 1993a & 1993b).

Based upon responses to the items contained within the Sexual Experience Survey, subjects will be grouped according to levels of sexual experience. There will be four groups for males and females. The first group will consist of individuals who deny all types of sexual interactions listed. This group, the non-experienced group will consist of individuals who have not experienced any type of sexually aggressive/assaultive behaviors as well as consensual sex. Individuals who report only engaging in consensual sex will be referred to as the sexually experienced group.

Males who report perpetrating a sexual assault, and females who report being victims of a sexual assault, will be referred to as the sexually assaultive group. Lastly, males who report perpetrating any act without the woman’s consent, and any woman who reports being a victim of such an act, will be referred to as the sexually aggressive group. The difference between these two groups is that all behaviors reported by individuals in the sexually aggressive group, although against the woman’s will, do not meet the definition of assault (Hull & Burke, 1991; Koss & Oros, 1982).
Social Desirability Scale

Strahan and Gerbasi's Social Desirability Scale (1972) is a short-form version of the original Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). The original form that they had constructed in order to measure bias had high test-retest and internal consistency reliabilities. It also had a low correlation with the Edwards Social Desirability Scale (Edwards, 1957), which according to the authors, demonstrated that it was devoid of psychopathological content, something they had hoped to achieve (Ballard, 1992).

It was Strahan and Gerbasi's (1972) goal to design a version requiring less time to complete and yet be as accurate a measurement. Although the original measurement had no gender differences, as found by Strahan and Gerbasi (1972; Ballard, 1992), concern arose over the usefulness of all of the items leading to additional exploratory examination of the instrument (Goldfried, 1964; Strahan & Gerbasi, 1972). Ballard, Crino, and Rubenfeld (1988) found that only 16 of the original 33 items addressed the original construct.

Strahan and Gerbasi (1972) performed a principal-components analysis. This yielded one dominant component which accounted for 13% of the total variance. The loadings determined the inclusion for the short forms Strahan
and Gerbasi (1972) constructed. They produced two, 10 item sub-scales and one, 20 item scale (consisting of the two ten-item scales). The range of loadings on the first factor were .11 to .54, but for their selected items the range was .28 to .54 (Ballard, 1992). Because of the high internal consistency and the high correlation with the original 33 item Marlowe Crowne Social Desirability Scale (Crowne & Marlowe, 1960), either of the ten-item scales constructed by Strahan and Gerbasi (1972) is the best of the social desirability scales, although the first seems to be stronger measurement of social desirability than the second (Fischer & Fick, 1993).

Follow-up analysis of this short-form was conducted by Fraboni and Cooper (1989). Sample means were close to those reported on the original by Marlowe and Crowne (1960). Alpha coefficients were also high as were the intercorrelations between the short form and the original scale. It was concluded by Fraboni and Cooper (1989) that the short form was an adequate measure of the construct established by the original scale.

Although there is not as much information available on the reliability and validity of this short form as compared to the original scale, adequate analysis of it has been completed and presented with confidence. It has been shown that this is the better of the short forms. Because of the questionable reliability and validity of some of the other scales utilized and the constant
possibility of false self-reporting, social desirability is a vital component of this study. This scale is brief, thus minimizing the length of the questionnaire and provides a means of measuring this construct.

**Sexual Aversion Scale**

The Sexual Aversion Scale (Katz, Gipson, Kearl, & Kriskovich, 1989) consists of 30 items answered on a four-point Likert-type scale in order to measure sexual aversion and sexual anxiety. Construction of the instrument was based upon the criteria for the diagnosis of Sexual Aversion stipulated within the Diagnostic and Statistical Manual of Mental Disorders (3rd ed. rev.; 1987) including sexual fears associated with sexually transmitted diseases, sexual guilt, negative social evaluation, pregnancy, and sexual trauma. Initially, 60 items were written utilizing the construct, of aversion to sexual contact and activities, as a guide. All items were rated for their relevance to the construct from which 30 items were than selected (Katz, Gipson, Kearl, & Kriskovich, 1989).

The scale was standardized in 1988 and was shown to have good internal (coefficient alpha was .85) and test-retest reliability (r=.85 over a four week period of time; Katz, Frazer, & Wilson, 1993). A coefficient alpha of .85 was obtained from a sample of 382 subjects. Test-retest reliability over a four-week period was .86, and the item-total correlation ranged from .56 to .97.
Females reported greater fear of sexual intercourse, worried more about being criticized for sexual involvement, and were more avoidant of sexual behaviors. Males tended to report greater sexual frustration, and were more likely to become sexually active if they knew they could avoid sexually transmitted diseases (Katz et al., 1989).

The Sexual Aversion Scale (Katz et al., 1989) has four factors as described by Katz, Gipson and Turner (1992). Sexual Avoidance reflects either a realistic or non-realistic concern about the dangers of sexual intercourse. Fear of Sexually Transmitted Diseases focuses on fears of diseases especially AIDS. Sexual Trauma is associated with a history of sexual mistreatment (molesation or rape). Lastly, Sexual Neuroticism reflects sexual aversion as a result of excessive anxiety, self-consciousness, and feelings of sexual inadequacy. These four factors are uniformly scored providing one total score for sexual aversion (Katz, Frazer, & Wilson, 1999).

It would be preferred that a scale such as this have stronger reliability and validity information available. But, this scale is no different than many of the others selected for this study. Few researchers have been studying such issues as sexual aversion, and thus the data are limited. What research had been conducted utilizing this instrument seems to employ it with confidence because of the limited number of such tools which are available. It seems to be
an adequate measurement, and, unlike other scales, is still prone to false reporting.

**Hostility Toward Women Scale**

Nineteen items were developed to assess the construct of hostility toward women. Check and Malamuth (1985) had created a 30-item Hostility Toward Women and Hostility Toward Men Scale from which these 19 items were derived. In a pilot study, these 19 statements were administered. The results were analyzed leading to the elimination of nine of the items, thus leaving the ten-item Hostility Toward Women Scale (Lonsway & Fitzgerald, 1995). The final ten items were then presented to a developmental sample yielding a coefficient alpha of .83 for the final version of the scale. The item-by-item correlation yielded a range of scores from .33 to .77 (Lonsway & Fitzgerald, 1995).

Malamuth (1988) utilized the Hostility Toward Women scale in a study of 453 male subjects in order to classify them according to past sexual aggression and their reported likelihood of coercive sex. The Hostility Toward Women scale was effective in assisting with this classification process. The scale was a suitable means of differentiating men with high levels of sexual aggression and hostility from other men (Malamuth, 1988).

This scale was selected for two reasons. The first is that it is a
measurement reported to assess hostility toward women. Secondly, this scale is
quite brief, a vital characteristic in the selection of assessment tools for this
study. There is an inadequate amount of research in terms of the scale’s
reliability and validity. But, the scale appears to have strong face validity, and
the final scale has a fair coefficient alpha level. Thus, because of the extensive
amount of research conducted in this area by the scale’s originators, it is used
with confidence.

The Self-Analysis Form

The Self-Analysis Form (Cattell & Scheier, 1963) is a 20 item Likert-
type scale which measures both covert and overt anxiety on five dimensions:
Ego Weakness, Guilt Proneness, Lack of Self-Sentiment, Id Pressure
(frustrative tension), and Suspiciousness (paranoid insecurity). The scale was
developed, after extensive research, in order to create an instrument that would
facilitate the ascertaining of clinical anxiety information quickly while
maintaining standardization and objectivity (Cattell & Scheier, 1963).

The construct validity for the Self-Analysis Form ranges from .85 to .90.
For each individual component, when correlated with the second order factors,
a range of .45 to .67 was ascertained. When these are combined in a multiple
correlation, the estimated total scale construct validity is .85 (Cattell &
Scheier, 1961).
To assess external concrete validity in terms of psychiatric criteria, it is noted that the items contained in the questionnaire address issues similar to symptoms of anxiety. Also, based upon laboratory, behavioral and physiological tests of anxiety data, there are strong correlations with the data from this instrument. Lastly, scores from this instrument were also correlated with psychiatric evaluations of individuals with anxiety. In studies by Cattell and Scheier (1959; 1961) it was found that diagnoses by psychiatrists of anxiety patients correlated higher with this instrument than any other anxiety assessment tool. Correlations ranged from .30 to .40. This level is high when taking into consideration the limits of the area of consensus (Cattell & Scheier, 1963).

The Self-Analysis Form also has the capability of distinguishing between normal and high levels of anxiety. Thus, the results of administering the instrument were compared to individuals with no psychiatric diagnosis and individuals in an out-patient program for anxiety. Individuals seeking care for anxiety scored 20 points higher than the group of "normal" individuals. Based upon this information, the primary basis for external validity consists of clinical judgement and diagnostic classifications of individuals with anxiety disorders (Cattell & Scheier, 1963).

The dependability-reliability for a test-retest administered over a one-
week interval was .93 and over a two-week interval .87. When administered to a group of “normal” and hospitalized anxiety patients, the split-half homogeneity value was .91. But, when administered to 240 “normal” individuals, results yielded a value of .84. As for the overt and covert aspects of the instrument, dependability-reliability test-retest coefficient over a one-week interval were .89 and .82 over a two-week interval. These results demonstrated high reliability. Test-retest reliability over longer intervals is not as important for this instrument because of the fact that such a test over a two-year interval, although estimated at .60, is not primarily a measure of unreliability (Cattell & Scheier, 1963).

It was found by Bendig (1959) that homogeneity coefficients for the overt and covert sub-scales were .60, .63, and .65 for the 20 items addressing covert anxiety, and .75, .79, and .76 for the overt items. The dependability-reliability for this study was .89 for the covert sub-scale and .82 for the overt sub-scale (Bendig, 1959). Based upon the above information, the Self-Analysis Form is viewed as a valid and reliable instrument for measuring free-floating, manifest anxiety (Cattell & Scheier, 1963).

Although there are more recently published scales purporting to measure the same construct, the Self-Analysis Form is a strong and solidly established scale. Significant amounts of data are available on reliability and validity, and
extensive research has been done utilizing this scale. It measures aspects of anxiety appropriate for this study and is used with confidence.

**Procedures**

Based upon a pre-test - post-test design, the Seton Hall University 1997 first-year students were administered the paper/pencil tests previously described. Administration was completed during both the second week of classes (approximately the first week of September) and the class four weeks prior to the end of the semester (approximately the week before Thanksgiving break). Males and females were given slightly different questionnaires as noted below.

The researcher attended all of the Skills classes during the weeks indicated and began the classes by distributing the packets containing the study’s instructions and instruments. Potential participants were asked to read the instructions along with the researcher. The Instruction page, entitled Call for Subjects (see Appendix A), included a description of the study. The study was described as a piece of research concerning the effects of the first semester of the first-year of college, on college students, with an emphasis on the prevalence of rape. Instructions also included an emphasis on the confidentiality and anonymity of the study.

After completion of the instructions, students were informed that
participation in the study would result in extra credit and thus, participation was voluntary. Alternative forms of extra credit were offered to the students by their professor at the times of administration. Other forms were determined by the professor and not the researcher. They were told that participation was not a requirement of the course and they could withdraw at any time. Students were also informed that they could bring the packet home and return it to the instructor at the next class meeting. Due to the design of the administration and collection, it was unknown to the researcher how many students either discontinued participation or who chose to complete the questionnaire at home.

Participants were also given an opportunity to ask questions of the researcher, especially during the debriefing which took place after the second administration during class time. The researcher briefly spoke to the classes about the issue of rape, the prevalence of this phenomenon and means of prevention.

The packets distributed contained nine assessment tools. Men and women received seven of the same assessments. One additional assessment designed just for the men and one solely for the women were also included. a) Men and women received the Beck Depression Inventory (Beck, 1978), a twenty-one item scale used to measure the level of depression the individual is
experiencing; b) The next tool utilized for both genders was the Self-Rating Scale (Rosenberg, 1965), a Likert-type assessment to measure self-esteem; c) The Self-Analysis Form (Cattell & Scheier, 1963) was given to both men and women in order to measure a mix of anxiety dimensions including Ego weakness, Guilt proneness, Lack of Id pressure (frustrative tension), and Suspiciousness (paranoid insecurity); d) Also included for both sexes was the Rape Myth Acceptance Scale (Burt, 1980; Newman & Colon, 1994) which measures an individual's attitudes and beliefs concerning rape and rape myths; e) In order to measure an individual's attitudes toward women, the Attitudes Toward Women Scale (Hull & Burke, 1991) was included for both men and women; f) The men and women both received the Sexual Experience Survey (Koss & Oros, 1982) which inquires about a wide range of experiences including whether or not a woman has been raped; g) Lastly, the Social Desirability Scale was included in order to assure honest reporting on the questionnaires for all respondents.

In addition to these seven assessments, the women received the Sexual Aversion Scale (Katz, Gipson, Kearl, & Kriskovich, 1989) used to assess sexual fears and avoidance while the men received the Hostility Toward Women Scale (Lonsway & Fitzgerald, 1995) to measure a man's level of aggression towards women. The questions were mixed and interspersed in random order rather
then given in sequence in order to eliminate response biases that could occur except in the case of the Beck Depression Inventory and the Self-Analysis Form due to the unique response scale utilized by these two instruments. All other scales used the same Likert type scale format. (See Appendices B and C).

**Variables**

The purpose of using the assessment tools described is to analyze the following dependent variables. For women, these variables included self-esteem, symptoms of psychological distress (including anxiety and depression), acceptance of rape myths, sexual experiences and reports of victimization (frequency rates as well), sexual aversion, and attitudes toward women (pro-feminist or non-feminist).

For the men, the dependent variables of interest were acceptance of rape myths, sexual experiences and reports of perpetration (including frequency rates), attitudes toward women (pro-feminist and anti-feminist), hostility toward women, and self-esteem.

The independent variables of comparison will be gender with comparisons being made both within sexes and between sexes. In addition, based upon self-reports, male perpetrators will be compared to male non-perpetrators and female victims of sexual assault will be compared to female non-victims. Based upon the self-reports on the Sexual Experience Survey
(Koss & Oros, 1982), subject pools among groups were large enough to conduct comparisons among groups of perpetrators and victims on varying degrees of sexually aggressive behaviors from forced kisses to forced anal/oral intercourse in addition to the comparisons pertaining to sexual assault.

**Statistical Analyses**

A power analysis was conducted according to the formula suggested by Cohen (1977). At the alpha level of .05, a power level of .80, and a population variable of \( R_{xy} = .30 \), defined as a conventional or medium effect size according to the size of the sample, was utilized (Cohen, 1988). A total sample size of 150 would be sufficient for the statistical analyses of the study. A subject pool of 215 females and 150 males was obtained during the pre-test and 151 females and 120 males for the post-test. Of these participants, 57 of the women and 26 of the men completed the questionnaire at both the September administration (pre-test) and the November administration (post-test). All other subjects completed it only once. All subjects containing missing data were eliminated and thus, not included in these analyses. This is why the questionnaires were offered to a large pool, thus increasing the likelihood of obtaining a large enough sample from the 850 possible participants.

Through the utilization of SPSS for windows (V7.0), a frequency count
was completed. This provided a break down of the victims and perpetrators based upon self-reports of committed or experienced rapes. Each participant was categorized according to responses on the Sexual Experience Survey (Koss & Oros, 1982). Individuals who reported no to all questions were classified into the “Never had Sex” group, otherwise referred to as the non-experienced group. The “Had Consensual Sex” group, otherwise referred to as the experienced group, consisted of individuals who reported “yes” to the second question on the survey “Had sexual intercourse with a man/woman when you both wanted to”. As for the “Victims/Perpetrators of Sexually Aggressive Acts” groups, males who reported “yes” to questions that did not meet the legal definition of rape, but acknowledged perpetrating any of the following were included in this group: fear of not being able to stop self due to being so sexually aroused, used some degree of physical force to engage in petting or kissing, threatened to use physical force but sexual intercourse did not occur, used force to obtain sexual intercourse but for some reason intercourse did not, and used threats or physical force to obtain anal or oral intercourse. Women were included in this group if they reported being victims of any of these acts but not any act that meets the legal definition of rape. The last group, “Victim/Perpetrator of a Rape/Sexual Assault” consisted not only of women who reported that they had been raped but also all items endorsed “yes” that
meet the legal definition of rape.

To compare the groups, as well as compare the pre- and post-test results, a repeated measures analysis of variance was to be completed. This would have provided a full analysis of all means. It was no longer possible to conduct an analysis of the pre and post-test administrations due to the although high number of subjects, the low number of matched subjects from the pre-test to the post-test. This can only be done if there is a significant number of matched subjects in the sample. As a result, a considerable amount of exploratory analysis was conducted in this area.

**Summary**

A group of 366 females and 250 males, first-year college students attending a small Catholic University, volunteered as subjects of a study to test the hypotheses concerning the relationship between sexually assaultive/sexually aggressive behaviors and a number of personality characteristics.

The characteristics assessed were depression, anxiety, self-esteem, social desirability, rape myth acceptance, attitudes toward women, hostility toward women and sexual aversion. Subjects' sexual experiences were assessed using the Sexual Experience Survey (SES; Koss & Oros, 1982). A general description of each instrument utilized and appropriate reliability and validity data were provided in the chapter.
Subjects were identified according to the types of sexual experience they reported including consensual sex, no reported sexual experiences, sexually aggressive, and sexual assault (perpetrator for the males and victim for the females).
CHAPTER IV

Results

Introduction

This chapter presents the results of the statistical analyses used to test the hypotheses in this study. The chapter begins with a presentation of descriptive statistics on the study sample. Next, the results of the hypothesis testing are presented along with the results of several exploratory analyses conducted.

After completion of data collection and analysis, an insufficient number of matched pairs between the baseline (September administration) and follow-up (November administration) was obtained. This resulted in the inability to conduct a repeated-measures analysis of the complete data set. A restructuring of the research study design was required. Hypotheses were tested by analyzing the follow-up data including one-way ANOVA's, chi-squares, and paired t-tests. A comparison between the September and November administration, and hypotheses regarding the rates of occurrence for both perpetration and victimization, became exploratory.

Overview of Results

A sample size of 636 respondents, 270 males and 366 females, all first-year college students, was obtained at two separate administrations. At
baseline, 150 males and 215 females were recruited for the sample while at the follow-up 120 males and 151 females responded (see Figure 1). Most of the respondents, at both administrations, were 18 years of age ($M=18.0$). At baseline, 12 of the females and 18 of the males were 19 years of age. At the follow-up, 11 of the females and 22 of the males were also 19 years of age. Any respondents who did not complete the questionnaire in full were dropped from the study (number dropped was 33).

The data collected, as described in Chapter III, were analyzed to determine whether sexual experience is significantly related to depression, anxiety, self-esteem, attitudes toward women, hostility toward women (for the men), sexual aversion (for the women), and rape myth acceptance. Respondents were grouped by sexual experience into one of four groups: no sexual experience, only consensual sex, sexually aggressive behaviors (any forced sexual activity excluding intercourse), and sexual assault. In addition to these four groups, a fifth group was created for additional exploratory analyses. This composite group, labeled as the attack group, consisted of all respondents from both the aggressive and assaultive sexual behaviors groups. In other words, men who reported perpetrating any unwanted sexual acts against a woman were included in the attack group. This provided a means of analyzing both victims and perpetrators as well as degrees of sexually violent acts.
Figure 1. Flow Chart of the Number of Respondents
Hypothesis Testing

Hypothesis One

It was hypothesized that, as a result of an increase in sexual experiences (assaultive and non-assaultive), the males would report higher levels of self-esteem from baseline to follow-up.

As a result of the change in the design of the study, this hypothesis (as a pre-post) became exploratory and was tested using the 26 matched pairs. The total data collected from all male subjects at both administrations was tested using a t-test, which yielded the results in Table 1. Contrary to the hypothesis, there is a decrease in the level of reported self-esteem from the pre-test to the post-test ($t=3.91$, $df=268$, $p<.001$). In order to address the original hypothesis, a t-test analysis of the 26 matched pairs was conducted in order to observe the changes in reported levels of self-esteem. Among the 26 matched males, there was no significant change in self-esteem ($t=1.92$, $df=25$, $p>.05$).

Hypothesis Two

It was hypothesized that those women who reported being victims of sexually assaultive behaviors (approximately 20% of the first-year college women), would also report lower levels of self-esteem, more psychological distress such as depression and anxiety, greater levels of acceptance of rape
myths, higher rates of reported sexual aversion and sexual dysfunction, and more anti-feminist attitudes concerning women's roles in society, from baseline to follow-up. To test this hypothesis, a one-way analysis of variance was conducted on each variable (Table 2). However, this was conducted using the total sample.
Table 1

Mean Scores of Male First Year College Students for Self-Esteem at the Baseline and Follow-up Administrations

<table>
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<tr>
<th></th>
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<th>Mean</th>
<th>SD</th>
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<tr>
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<td>150</td>
<td>39.65</td>
<td>5.87</td>
</tr>
<tr>
<td>Post-test</td>
<td>120</td>
<td>30.66</td>
<td>6.68</td>
</tr>
</tbody>
</table>
Table 2

One-way Analysis of Variance for Females of Attitudes Toward Women, Depression, Anxiety, Sexual Aversion, Self-Esteem, and Rape Myth Acceptance at Follow-up

<table>
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<th>MSE</th>
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</tr>
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<td>3</td>
<td>96.53</td>
<td>32.18</td>
<td>1.21</td>
</tr>
<tr>
<td>Within Groups</td>
<td>147</td>
<td>3903.23</td>
<td>26.55</td>
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<th>Mean</th>
<th>SD</th>
<th>95% CI</th>
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</thead>
<tbody>
<tr>
<td>No Sex</td>
<td>35</td>
<td>14.49</td>
<td>5.72</td>
<td>12.52 to 16.45</td>
</tr>
<tr>
<td>Consensual Sex</td>
<td>44</td>
<td>14.23</td>
<td>5.59</td>
<td>12.53 to 15.93</td>
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<tr>
<td>Aggressive</td>
<td>38</td>
<td>12.71</td>
<td>4.40</td>
<td>11.26 to 14.16</td>
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<tr>
<td>Assault</td>
<td>34</td>
<td>14.82</td>
<td>4.70</td>
<td>13.18 to 16.46</td>
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<table>
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<td>989.71</td>
<td>329.90</td>
<td>4.65</td>
</tr>
<tr>
<td>Within Groups</td>
<td>147</td>
<td>10424.33</td>
<td>70.91</td>
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</tr>
<tr>
<td>Total</td>
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<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Sex</td>
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<td>6.14*</td>
<td>5.65</td>
<td>4.20 to 8.08</td>
</tr>
<tr>
<td>Consensual Sex</td>
<td>44</td>
<td>6.55*</td>
<td>8.33</td>
<td>4.01 to 9.08</td>
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<tr>
<td>Aggressive</td>
<td>38</td>
<td>7.90</td>
<td>7.65</td>
<td>5.38 to 10.41</td>
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<tr>
<td>Assault</td>
<td>34</td>
<td>12.79*</td>
<td>11.27</td>
<td>8.86 to 16.73</td>
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</table>
### Table 2 (continued)

#### Rape Myth Acceptance

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<td>Between Groups</td>
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<td>126.05</td>
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<td>.21</td>
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<tr>
<td>Within Groups</td>
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<td>30.39 to 37.03</td>
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<tr>
<td>Assault</td>
<td>34</td>
<td>35.97</td>
<td>14.65</td>
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#### Anxiety

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<tbody>
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<td>Between Groups</td>
<td>3</td>
<td>1531.70</td>
<td>510.57</td>
<td>4.76</td>
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<tr>
<td>Within Groups</td>
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<td>15760.34</td>
<td>107.21</td>
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<td>Total</td>
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<th>95% CI</th>
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<td>31.57*</td>
<td>11.78</td>
<td>27.53 to 35.62</td>
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<tr>
<td>Consensual Sex</td>
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<td>31.70*</td>
<td>10.10</td>
<td>28.63 to 34.78</td>
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<tr>
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<tr>
<td>Assault</td>
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<td>39.65*</td>
<td>11.11</td>
<td>35.77 to 43.52</td>
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*Significant at p < .05
Table 2 (continued)

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<td>572.81</td>
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<td>Within Groups</td>
<td>147</td>
<td>22329.36</td>
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<td>63.63</td>
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<td>60.66 to 66.60</td>
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<td>67.68</td>
<td>11.88</td>
<td>63.53 to 71.82</td>
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<td>.54</td>
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<td>7097.06</td>
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<td>30.00</td>
<td>7.13</td>
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<tr>
<td>Consensual Sex</td>
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<td>30.75</td>
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<td>34</td>
<td>29.32</td>
<td>6.37</td>
<td>27.10 to 31.54</td>
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</table>

Note. SS refers to the sum of squares and MSE refers to mean square errors.

* p < .05
Differences between groups occurred with the psychological distress variables of depression ($F(3, 147) = 4.652; (p<.05)$) and anxiety ($F(3, 147) = 4.762; (p<.05)$). Differences pertaining to the other variables were not significant. Differences exist between the Assault group ($M = 12.79$ & $39.65$) and the No sex ($M = 6.14$ & $31.57$) and Consensual Sex ($M = 6.55$ & $31.70$) groups for the variables of depression and anxiety (respectively) based upon a Scheffe post-hoc test. The Assault group reported a statistically significant higher level of anxiety and depression than did the No Sex and Consensual Sex groups. The Consensual group reported levels slightly higher than the No Sex group, although this is not a statistically significant difference.

Hypothesis Three

It was hypothesized that the first-year male students who report sexually assaultive behaviors toward women, and admit perpetration, would also report lower levels of acceptance of rape myths, higher levels of hostility toward women, and more anti-feminist views of women.

To test this hypothesis, a one-way analysis of variance was used for each variable. The results are displayed in Table 3.
### Table 3

**One-way Analysis of Variance for Male of Attitudes Toward Women and Hostility Toward Women and Rape Myth Acceptance at Follow-up**

<table>
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<tr>
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</tr>
</thead>
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<td>572.94</td>
<td>5.92</td>
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<td>Within Groups</td>
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<td>Total</td>
<td>119</td>
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<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
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<td>39</td>
<td>39.31*</td>
<td>9.52</td>
<td>36.22 to 42.39</td>
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<tr>
<td>Consensual Sex</td>
<td>34</td>
<td>41.74*</td>
<td>11.23</td>
<td>37.82 to 45.65</td>
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<tr>
<td>Aggressive</td>
<td>19</td>
<td>43.26</td>
<td>11.49</td>
<td>37.73 to 48.80</td>
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<tr>
<td>Assault</td>
<td>28</td>
<td>49.36</td>
<td>6.81</td>
<td>46.72 to 52.00</td>
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</table>

**Attitudes Toward Women**

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<th>SS</th>
<th>MSE</th>
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<tr>
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<td>116</td>
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<td>13.78</td>
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<td>Total</td>
<td>119</td>
<td>1772.37</td>
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</table>

<table>
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<th>Mean</th>
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<th>95% CI</th>
</tr>
</thead>
<tbody>
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<td>39</td>
<td>15.82*</td>
<td>3.67</td>
<td>14.63 to 17.01</td>
</tr>
<tr>
<td>Consensual Sex</td>
<td>34</td>
<td>17.59*</td>
<td>4.15</td>
<td>16.14 to 19.04</td>
</tr>
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<td>Aggressive</td>
<td>19</td>
<td>16.32</td>
<td>3.95</td>
<td>14.39 to 18.24</td>
</tr>
<tr>
<td>Assault</td>
<td>28</td>
<td>18.89</td>
<td>2.95</td>
<td>17.75 to 20.04</td>
</tr>
<tr>
<td>Source</td>
<td>df</td>
<td>SS</td>
<td>MSE</td>
<td>F</td>
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<td>Between Groups</td>
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<td>435.70</td>
<td>145.23</td>
<td>8.90</td>
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<td>Within Groups</td>
<td>116</td>
<td>1872.67</td>
<td>16.14</td>
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<tr>
<td>Total</td>
<td>119</td>
<td>2308.37</td>
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<tr>
<td>Group</td>
<td>n</td>
<td>Mean</td>
<td>SD</td>
<td>95% CI</td>
</tr>
<tr>
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<td>39</td>
<td>21.33*</td>
<td>3.99</td>
<td>20.04 to 22.63</td>
</tr>
<tr>
<td>Consensual Sex</td>
<td>34</td>
<td>22.94*</td>
<td>4.51</td>
<td>21.37 to 24.51</td>
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<td>Aggressive</td>
<td>19</td>
<td>23.21</td>
<td>3.54</td>
<td>21.51 to 24.92</td>
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<td>Assault</td>
<td>28</td>
<td>26.46</td>
<td>3.72</td>
<td>25.02 to 27.91</td>
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</tbody>
</table>

Note. SS refers to sum of squares and MSE refers to mean square errors.

*p < .05
Based upon the one-way ANOVA and a Scheffe post-hoc test, significant differences were found on all three of these variables (respectively); rape myth acceptance \( [F (3, 116) = 5.917; \ p < .001] \), attitudes toward women \( [F (3, 116) = 4.199; \ p < .01] \), and hostility toward women \( [F (3, 116) = 8.996; \ p < .05] \) between the Assault group \( (M = 49.36, 18.89 \& 26.46) \) and both the No Sex \( (M = 39.31, 15.82 \& 21.33) \) and Consensual Sex \( (M = 41.74, 17.59 \& 22.94) \) groups.

As per the hypothesis, to analyze how all men who reported perpetration of either assaultive or aggressive acts compared with men who did not, an additional group was created. This group was labeled the Attack group and consisted of the combination of the men from both the Assault group and the Aggressive group. To test this hypothesis, an ANOVA was utilized and yielded the results seen in Table 4.

Based upon a one-way ANOVA, significant differences were found between these two groups on all three variables \( (p < .001) \). Attackers reported significantly higher levels of rape myth acceptance \( (M = 45.92; F(1, 268), 33.348) \), more anti-feministic attitudes toward women \( (M = 17.69; F(1, 268), 14.281) \) and higher levels of hostility toward women \( (M = 24.73; F(1, 268), 22.948) \).

In addition, ANOVA's were conducted on the variables of anxiety and
depression, for exploratory purposes, to determine whether any other
significant differences existed. It was hypothesized that depression and anxiety
would be associated with sexual experience for males. The results are displayed
in Table 5. Men who reported perpetrating a sexual assault were significantly
more depressed [F (3, 116) 10.882; (p<.001)] and anxious [F (3, 116) 7.652;
(p<.001)] than men who did not report engaging in any type of sexually
aggressive or assaultive behaviors. Attackers were found to experience higher
levels of depression [F (1, 268) 33.439; (p<.001)] and anxiety [F (1, 268)
32.166; (p<.001)] than men who had not engaged in any sexually aggressive
or violent actions against women (see Figure 2).
<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>95% CI</th>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Attackers</td>
<td>195</td>
<td>38.34*</td>
<td>9.60</td>
<td>36.99 to 39.70</td>
</tr>
<tr>
<td></td>
<td>Attackers</td>
<td>75</td>
<td>45.92*</td>
<td>9.80</td>
<td>43.67 to 48.17</td>
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<tr>
<td><strong>Attitudes Toward Women</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Attackers</td>
<td>195</td>
<td>15.76*</td>
<td>3.78</td>
<td>15.23 to 16.30</td>
</tr>
<tr>
<td></td>
<td>Attackers</td>
<td>75</td>
<td>17.69*</td>
<td>3.74</td>
<td>16.83 to 18.55</td>
</tr>
<tr>
<td><strong>Hostility Toward Women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Attackers</td>
<td>195</td>
<td>21.93*</td>
<td>4.38</td>
<td>21.31 to 22.55</td>
</tr>
<tr>
<td></td>
<td>Attackers</td>
<td>75</td>
<td>24.73*</td>
<td>4.12</td>
<td>23.78 to 25.68</td>
</tr>
</tbody>
</table>

*p<.001
Table 5

Depression and Anxiety for Males Categorized as Attackers and Non-Attackers at Follow-up

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Mean</th>
<th>SD</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Attackers</td>
<td>195</td>
<td>5.27*</td>
<td>6.04</td>
<td>4.42 to 6.12</td>
</tr>
<tr>
<td>Attackers</td>
<td>75</td>
<td>11.19*</td>
<td>10.47</td>
<td>8.78 to 13.60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Mean</th>
<th>SD</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Attackers</td>
<td>195</td>
<td>27.68*</td>
<td>9.60</td>
<td>26.32 to 29.03</td>
</tr>
<tr>
<td>Attackers</td>
<td>75</td>
<td>35.00*</td>
<td>9.24</td>
<td>32.87 to 37.13</td>
</tr>
</tbody>
</table>

*p<.001
ANOVA - Attackers vs. Non-Attackers

![Bar graph showing mean scores and 95% confidence intervals for various variables: Rape Myth, Hostility, Attitudes, Depression, Anxiety. The x-axis represents the variables, and the y-axis represents the scores.]

**Figure 2.** Mean Scores and 95% Confidence Intervals (points and vertical lines) for Males Categorized as Attackers or Non-Attackers
Hypothesis Four

It was hypothesized that males who admitted to engaging in sexually aggressive behaviors, rather than sexually assaultive behaviors, would report psychological scores falling between those of the sexually assaultive and the non-experience groups.

To address this hypothesis, the one-way ANOVA was also used. Based upon the one-way ANOVA, although there are differences between these groups in terms of the means, none of these differences were significant. Tables 4 and 5 contain this information. The data supports the hypothesis for Rape Myth Acceptance where the mean for individuals reporting perpetration of aggressive behaviors (M=43.26) falls between individuals who report perpetration of an assault (M=49.36) and individuals who did not (No Sex, M=39.31 and Consensual Sex, M = 41.74; SD = 10.43). The data results provide indication for higher rape myth acceptance among men who perpetrate sexually aggressive acts against women (not sexual assault), but not as high for men who reported perpetrating a sexual assault.

Similar results were found for the variable of Hostility Toward Women where the aggressive men had a mean score of 23.21 which fell between the other three groups (Assault, M=26.46; Consensual Sex, M= 22.94; No Sex, M=21.33; SD = 4.40).
The Assault group differed significantly from No Sex and Consensual Sex groups on the variables Rape Myth Acceptance [$F (3, 116) 5.917$; ($p<.001$)] and Hostility Toward Women [$F (3, 116) 8.996$; ($p<.05$)]. Males who had assaulted a woman were more likely to endorse rape myths and report higher levels of hostility toward women.

Lastly, the trend for the variable Attitudes Toward Women revealed some variations which were not significant. Individuals reporting perpetration of aggressive behaviors ($M=16.32$) did have a mean score that fell between individuals who reported perpetrating an assault ($M=18.89$) and those who reported none of these sexual experiences ($M=15.82$). However, individuals reporting consensual sex had a slightly higher mean than the aggressive individuals ($M=17.59$). The only statistically significant difference existed between the Assault group and the No Sex group [$F (3, 116) 4.199$; ($p<.01$)]. Men who reported assaulting a woman reported more traditional views of women's roles than men who had not engaged in any form of intercourse.

**Hypothesis Five**

It was hypothesized that females who were victims of sexually aggressive behaviors, but not of sexual assault, would report psychological stressors and other characteristics falling between the non-experience and sexually assaulted groups.
To test this hypothesis, ANOVA's were used to determine if differences that existed were statistically significant (Table 2). The data supported the hypothesis for the variables Depression and Anxiety. For Depression, the mean attained from the individuals who reported being victims of sexually aggressive behaviors ($M=7.90$) fell between that of the individuals reporting victimization of an assault ($M=12.79$) and the women who had not experienced these sexual acts ($M=6.14$) and the women reporting consensual sex: $((M=6.55); F(3, 147) 4.652; (p<.05))$. The same trend applies to the variable Anxiety where the mean for female victims of sexually aggressive acts ($M=34.63$) fell between the assaulted group ($M=39.65$) and the no sexual experiences group ($M=31.57$) and the consensual sex group: $((M=31.70); F(3, 147) 4.762; (p<.05))$. The highest levels of depression were reported by women who were victims of a sexual assault. The lowest level of depression was reported by women who had not experienced any kind of sexual activity, consensual or non-consensual.

In terms of the variable Depression, statistically significant differences exist between the Assault group and both the No Sex and Consensual Sex groups $F(3, 116) 4.652; (p<.05))$. The same statistically significant relationships exist for the variable Anxiety $F(3, 116) 4.762; (p<.05))$.

Another interesting trend is seen in these mean scores of the women
who reported being victims of sexually aggressive acts, perpetrated by men, compared to the other groups. Although the scores do not support the hypothesis, the sexually aggressive group has the highest or lowest mean for each variable studied. This seems inconsistent as compared to the other groups. In particular, this is illustrated with the variable Attitudes Toward Women where the Aggressive group has a mean score of 12.71 and the other three groups range from 14.23 to 14.82. With the variable Rape Myth Acceptance, the victims of aggressive acts had a mean score of 33.71 while the other groups had means ranging from 35.54 to 35.97 (F(3, 147) 1.212; (p>.01)). Thus, the sexually aggressed against group was more pro-feminist and less likely to support rape myths than the other three groups.

Although the pattern is not as clear, the victims of aggression had the lowest mean for the variable of Sexual Aversion (63.63) as compared to the other groups [No Sex 68.14, Consensual Sex 64.43 and Assault 67.68; F(3, 147) 1.257; (p>.1)]. As for the variable Self-Esteem, the reverse was found. Women in the aggressive group (women who report being victims of a sexually aggressive act but none that meet the legal definition of assault) had a mean score of 31.26, the highest compared to the other groups whose scores ranged from 29.32 to 30.75 (F(3, 147) .543; (p>.1)). Thus, as predicted, women who reported experiencing an assault had higher levels of sexual aversion.
However, women who reported being victims of sexually aggressive acts reported the lowest degree of sexual aversion. These same women had the highest levels of self-esteem.

Exploratory Hypotheses and Additional Analyses

Exploratory Hypotheses

It was hypothesized that there would be a statistically significant increase in the prevalence of self-reported sexual assaults on campus from September (baseline) to November (follow-up). This hypothesis became exploratory because of the change in the design of the study. When a matched pairs design was no longer feasible for the total sample, then true changes in prevalence rates were no longer attainable. Instead, an analysis of the total sample was conducted but must be interpreted with caution.

This hypothesis was tested merely by observing the distribution of percentages of the sample for sexual experiences. For the frequency distribution of the sample, pertaining to this hypothesis, see Table 7. At baseline, no women reported that they had been raped. However, 23 reported "yes" to items that met the legal definition of rape (an act that involves penetration of a woman, without her consent through the use of force, or threat of force, or when the victim is incapable of giving her consent; Koss, 1981, 1987, 1988, 1993, 1998b). The other items included in this category
were "threatened to end the relationship in order to obtain sex when the woman did not want to, argued or pressured the woman to have sex when she did not want to, and threatened to use force or used force to obtain sexual intercourse when the woman did not want to" (Koss & Oros, 1982). All of these items, according to the legal definition of rape, constitute the perpetration of a sexual assault.

At follow-up, 23.3% of males reported perpetrating a sexual assault, and 22.5% of the females reported victimization. All of these incidents occurred during the first semester of college. Any respondent who experienced a sexual assault (perpetration or victimization), was asked when it had occurred. Reports that happened prior to the beginning of the college year were eliminated from the study. An analysis of the distribution of percentages indicated that at follow-up, males were 8.8 times more likely to have raped compared with the beginning of the semester (23.3%/2.7% = 8.8, 95% CI = 3.2 - 24.3, p<.001). At the end of the first semester, females were more than twice as likely to be victims of rape compared with the prevalence at the beginning of the semester (22.5%/10.7% = 2.1, 95% CI = 1.3 - 3.4, p=.003).

It was also hypothesized that there would be a statistically significant increase in the baseline to follow-up levels of sexual experience (assaultive and non-assaultive). Similar to the previous hypothesis, without a matched pairs
analysis, the following data from the total sample is purely exploratory.

This hypothesis was also tested by using the percentages of experiences according to the categorization of each subject by self-reported sexual experiences. See Table 6 which also addresses this hypothesis. Although Table 6 shows that there is actually a decrease in the number of subjects engaging in consensual sex, there is also a decrease in the number of subjects who report never having had sex. However, only a small number of the subjects had answered both sets of questions. In addition, there is an increase in the number of reported aggressive and assaultive acts for both males and females. An analysis of the distribution of percentages indicated that in the males there was not a significant increase in sexual experience from baseline (64%) to follow-up (68%; RR = 1.1, 95% CI = .9 - 1.3, p=.607). In females, there was an increase from 63% to 77% (see Figures 3 and 4).
Table 6

**Sexual Experience by Gender**

<table>
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<tr>
<th></th>
<th>Baseline (n=150)</th>
<th>Follow-up (n=120)</th>
</tr>
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<tbody>
<tr>
<td><strong>Males</strong></td>
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</tr>
<tr>
<td>Type of Sexual Experience</td>
<td></td>
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<tr>
<td>Never had Sex</td>
<td>54 / 36%*</td>
<td>39 / 32.5%*</td>
</tr>
<tr>
<td>Had Consensual Sex</td>
<td>68 / 45.3%*</td>
<td>34 / 28.3%*</td>
</tr>
<tr>
<td>Perpetrator of Sexually Aggressive Acts</td>
<td>24 / 16%*</td>
<td>19 / 15.8%*</td>
</tr>
<tr>
<td>Perpetrator of a Rape</td>
<td>4 / 2.7%*</td>
<td>28 / 23.3%*</td>
</tr>
<tr>
<td><strong>Females</strong></td>
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</tr>
<tr>
<td>Type of Sexual Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never had Sex</td>
<td>79 / 36.7%**</td>
<td>35 / 23.2%**</td>
</tr>
<tr>
<td>Had Consensual Sex</td>
<td>68 / 31.6%**</td>
<td>44 / 21.9%**</td>
</tr>
<tr>
<td>Victim of Sexually Aggressive Acts</td>
<td>45 / 20.9%**</td>
<td>38 / 25.2%**</td>
</tr>
<tr>
<td>Victim of a Rape</td>
<td>23 / 10.7%**</td>
<td>34 / 22.5%**</td>
</tr>
</tbody>
</table>

*p<.001, **p<.003
Figure 3. Sexual Experience of Female Respondents
Figure 4. Sexual Experience of Male Respondents
Reliability Analyses

Each of the assessment tools utilized in this study, with the exceptions of the Self-Analysis Form (Cattell & Scheler, 1963), the Beck Depression Inventory (Beck, 1978) and the Sexual Experience Survey (Koss & Oros, 1982), were integrated, item by item, in order to form one large assessment tool. As a result of this, it was imperative to assess the reliability of each of the scales in this altered form from the original presentation of each scale. Cronbach’s Alphas were completed on every scale utilized in this study to assess the reliabilities. Reliability was gauged for males and females on the post-test data. The reliability scores yielded from the Cronbach’s Alpha are displayed in Table 7.

Many of the alpha scores obtained were similar to those established by the published information pertaining to each scale including the integrated scales such as the Attitudes Toward Women Scale, the Sexual Aversion Scale, the Social Desirability Scale, and the Self-Rating Scale and the scales presented in the original format (the Beck Depression Inventory and the Self-Analysis Form). The score derived for the Rape Myth Acceptance Scale fell above that established in previous literature. An alpha score of .90 and .96 was obtained from this study compared to .74 in the published literature on this scale (Newman & Colon, 1994). The score for the Hostility Toward Women Scale
(7.4) fell below that obtained in the published literature for this scale (8300).

**Matched, Unmatched and Total Sample**

Because of the changes in the sample, resulting in an alteration of the design of the study, an analysis of the matched subject pairs, unmatched subject pairs and the total sample of subjects was also conducted. There were 57 matched pairs among the sample of females and 26 among the males. Of the females, at the time of the follow-up, percentages reported were as follows: 18/31.6% experienced no sexual activities, 19/33.3% engaged in consensual sex, 11/19.3% experienced some form of aggressive sexual behavior and 9/15.8% were victims of a sexual assault. Of the males, percentages reported were as follows: 8/30.8% experienced no sexual activities, 14/53.8% engaged in consensual sex, 1/3.8% perpetrated some form of aggressive sexual behavior, and 3/11.5% perpetrated a sexual assault.

To analyze these pairs for significant differences a repeated measures multivariate analysis of variance (MANOVA) and a paired samples t-test was conducted on each variable. The results are outlined in Tables 8 and 9.
Table 7

Reliability Analysis

<table>
<thead>
<tr>
<th>Assessment Instrument</th>
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<th>Females</th>
<th>(Previous Lit)</th>
</tr>
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<td>.92</td>
<td>.90</td>
</tr>
<tr>
<td>Rape Myth Acceptance Scale</td>
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<td>.96</td>
<td>.74</td>
</tr>
<tr>
<td>Attitudes Toward Women</td>
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<td>.86</td>
<td>.74-.83</td>
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<td>Self-Analysis Form</td>
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<td>.85-.90</td>
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<td>.28-.54</td>
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<tr>
<td>Self-Rating</td>
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<td>.90-.96</td>
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<tr>
<td>Hostility Toward Women</td>
<td>.74</td>
<td>NA</td>
<td>.83</td>
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Table 8

Multi-variate Analysis of Variance of the Female Matched Sample from Baseline to Follow-up

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<th>Post-test</th>
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<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>Attitudes Toward Women</td>
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<td>2.75</td>
<td>57</td>
<td>13.61</td>
</tr>
<tr>
<td>Depression</td>
<td>6.70</td>
<td>5.88</td>
<td>57</td>
<td>5.33</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>30.40</td>
<td>7.64</td>
<td>57</td>
<td>33.33</td>
</tr>
<tr>
<td>Anxiety</td>
<td>31.88</td>
<td>10.26</td>
<td>57</td>
<td>30.33</td>
</tr>
<tr>
<td>Aversion</td>
<td>61.61</td>
<td>10.80</td>
<td>57</td>
<td>63.14</td>
</tr>
<tr>
<td>Social Desirability</td>
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<td>57</td>
<td>25.04</td>
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<tr>
<td>Self-Esteem</td>
<td>33.77</td>
<td>4.45</td>
<td>57</td>
<td>31.47</td>
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</table>

<table>
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<tr>
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<th>Value</th>
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<th>Hypoth. DF</th>
<th>Error DF</th>
<th>Sig. Of F</th>
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<td>Pillais</td>
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<tr>
<td>Wilks</td>
<td>.0135</td>
<td>522.2139</td>
<td>7.00</td>
<td>50.00</td>
<td>.000</td>
</tr>
<tr>
<td>Roys</td>
<td>.9865</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Chi-square=211.35 with 27 df at p<.001.
Table 9

Paired Sample T-test from Females for Attitudes Toward Women, Depression, Rape Myth Acceptance, Anxiety, Sexual Aversion, Social Desirability and Self-Esteem

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline (n=57)</th>
<th>Follow-up (n=57)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Toward Women</td>
<td>12.14</td>
<td>13.64</td>
<td>.023</td>
</tr>
<tr>
<td>Depression</td>
<td>6.65</td>
<td>5.33</td>
<td>.034</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>30.40</td>
<td>33.33</td>
<td>.068</td>
</tr>
<tr>
<td>Anxiety</td>
<td>31.88</td>
<td>30.33</td>
<td>.138</td>
</tr>
<tr>
<td>Sexual Aversion</td>
<td>61.61</td>
<td>63.14</td>
<td>.410</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>25.30</td>
<td>25.04</td>
<td>.568</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>33.77</td>
<td>31.47</td>
<td>.009</td>
</tr>
</tbody>
</table>
There are significant differences between the baseline and follow-up groups as indicated by the MANOVA. Specific differences exist for the variables Attitudes Toward Women, Depression, and Self-Esteem at the .05 level as indicated by the t-test. At follow-up women had more anti-feministic views, had lower self-esteem, and reported a lower level of depression. According to the t-test, Self-esteem and Attitudes Toward Women are the two variables which at baseline and follow-up were independently significant.

Of these 57 women, none reported, at baseline, being raped. At the time of the follow-up administration, only one reported being the victim of a rape (actually labeling the experience as a rape). But, nine of the women's reports met the legal definition of a rape.

There were 252 unmatched women in the sample, 158 in the baseline and 94 in the follow-up. To determine whether any significant differences existed between the baseline and follow up groups, a MANOVA and a t-test were also conducted and are displayed in Tables 10 and 11.
Table 10

Multivariate Analysis of Variance of the Female Unmatched Sample from Baseline to Follow-up

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes</td>
<td>1250</td>
<td>4.92</td>
<td>(24.98)*</td>
</tr>
<tr>
<td>Depression</td>
<td>1250</td>
<td>4.72</td>
<td>(67.73)*</td>
</tr>
<tr>
<td>Rape Myth</td>
<td>1250</td>
<td>5.12</td>
<td>(164.70)*</td>
</tr>
<tr>
<td>Anxiety</td>
<td>1250</td>
<td>5.62</td>
<td>(118.76)*</td>
</tr>
<tr>
<td>Aversion</td>
<td>1250</td>
<td>2.59</td>
<td>(135.62)</td>
</tr>
<tr>
<td>Social Des.</td>
<td>1250</td>
<td>3.48</td>
<td>(19.67)</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>1250</td>
<td>7.81</td>
<td>(42.45)**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Value</th>
<th>Approx. F</th>
<th>Hypoth. DF</th>
<th>Error DF</th>
<th>Sig. Of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillais</td>
<td>.0502</td>
<td>1.8413</td>
<td>7.00</td>
<td>244.00</td>
<td>.080</td>
</tr>
<tr>
<td>Hotellings</td>
<td>.0529</td>
<td>1.8413</td>
<td>7.00</td>
<td>244.00</td>
<td>.080</td>
</tr>
<tr>
<td>Wilks</td>
<td>.9498</td>
<td>1.8413</td>
<td>7.00</td>
<td>244.00</td>
<td>.080</td>
</tr>
<tr>
<td>Roys</td>
<td>.0502</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Values enclosed in parentheses represent mean square errors.

*p < .05, **p < .01
Table 11

Unmatched Sample T-test from Females for Attitudes Toward Women, Depression, Rape Myth Acceptance, Anxiety, Sexual Aversion, Social Desirability and Self-Esteem

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline (n=158)</th>
<th>Follow-up (n=94)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Toward Women</td>
<td>12.85</td>
<td>14.30</td>
<td>.036</td>
</tr>
<tr>
<td>Depression</td>
<td>7.61</td>
<td>9.94</td>
<td>.047</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>32.66</td>
<td>36.44</td>
<td>.036</td>
</tr>
<tr>
<td>Anxiety</td>
<td>33.18</td>
<td>36.54</td>
<td>.019</td>
</tr>
<tr>
<td>Sexual Aversion</td>
<td>65.01</td>
<td>67.45</td>
<td>.109</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>25.43</td>
<td>24.53</td>
<td>.063</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>32.09</td>
<td>29.72</td>
<td>.006</td>
</tr>
</tbody>
</table>
There is a significant difference between the pre and post-test groups for the unmatched sample in terms of the variables Attitudes Toward Women, Depression, Rape Myth Acceptance, Anxiety and Self-Esteem. At the follow-up, the female respondents were more anti-feminist in their attitudes toward women ($M=14.30$), were more depressed ($M=9.94$), believed in rape myths to a greater frequency ($M=36.44$), were more anxious ($M=36.54$), and had lower levels of self-esteem ($M=29.72$) than at baseline.

Among the sample of males students there were 26 matched pairs. The tests conducted on the females were also conducted on the males and are displayed in Table 12 and 13. No significant differences were found between the baseline and follow-up groups.

The same analysis was then conducted for the 218 unmatched males. Of these 218 males, 124 were in the pre-test sample and 94 were in the post-test sample. Results of the MANOVA and t-test are displayed in tables 14 and 15.
Table 12

Multivariate Analysis of Variance of the Male Matched Sample from Baseline to Follow-up

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-test</th>
<th></th>
<th></th>
<th>Post-test</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>Attitudes Toward Women</td>
<td>15.92</td>
<td>3.72</td>
<td>26</td>
<td>17.62</td>
<td>3.44</td>
<td>26</td>
</tr>
<tr>
<td>Hostility Toward Women</td>
<td>22.08</td>
<td>3.93</td>
<td>26</td>
<td>4.12</td>
<td>3.91</td>
<td>26</td>
</tr>
<tr>
<td>Depression</td>
<td>4.12</td>
<td>3.91</td>
<td>26</td>
<td>6.58</td>
<td>9.87</td>
<td>26</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>40.50</td>
<td>9.52</td>
<td>26</td>
<td>41.77</td>
<td>10.51</td>
<td>26</td>
</tr>
<tr>
<td>Anxiety</td>
<td>26.65</td>
<td>8.30</td>
<td>26</td>
<td>27.73</td>
<td>8.03</td>
<td>26</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>24.81</td>
<td>2.68</td>
<td>26</td>
<td>25.31</td>
<td>2.26</td>
<td>26</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>33.15</td>
<td>5.27</td>
<td>26</td>
<td>31.00</td>
<td>6.60</td>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Value</th>
<th>Approx. F</th>
<th>Hypoth. DF</th>
<th>Error DF</th>
<th>Sig. Of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillais</td>
<td>.9810</td>
<td>140.4179</td>
<td>7.00</td>
<td>19.00</td>
<td>.000</td>
</tr>
<tr>
<td>Hotellings</td>
<td>51.7329</td>
<td>140.4179</td>
<td>7.00</td>
<td>19.00</td>
<td>.000</td>
</tr>
<tr>
<td>Wilks</td>
<td>.0190</td>
<td>140.4179</td>
<td>7.00</td>
<td>19.00</td>
<td>.000</td>
</tr>
<tr>
<td>Roys</td>
<td>.9810</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Chi-square=77.64 with 27 df at p<.001.
Table 13

**Paired Sample T-test from Males for Attitudes Toward Women, Depression, Rape Myth Acceptance, Anxiety, Hostility Toward Women, Social Desirability and Self-Esteem**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline</th>
<th>Follow-up</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Toward Women</td>
<td>15.92</td>
<td>17.62</td>
<td>.194</td>
</tr>
<tr>
<td>Depression</td>
<td>4.12</td>
<td>6.58</td>
<td>.211</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>40.50</td>
<td>41.77</td>
<td>.619</td>
</tr>
<tr>
<td>Anxiety</td>
<td>26.65</td>
<td>27.73</td>
<td>.502</td>
</tr>
<tr>
<td>Hostility Toward Women</td>
<td>22.08</td>
<td>22.04</td>
<td>.967</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>24.81</td>
<td>25.31</td>
<td>.362</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>33.15</td>
<td>31.00</td>
<td>.067</td>
</tr>
</tbody>
</table>
Table 14
Multivariate Analysis of Variance of the Male Unmatched Sample from Baseline to Follow-up

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes</td>
<td>1216</td>
<td>7.04</td>
<td>(14.85)**</td>
</tr>
<tr>
<td>Depression</td>
<td>1216</td>
<td>14.02</td>
<td>(60.98)**</td>
</tr>
<tr>
<td>Rape Myth</td>
<td>1216</td>
<td>15.06</td>
<td>(99.62)**</td>
</tr>
<tr>
<td>Anxiety</td>
<td>1216</td>
<td>7.65</td>
<td>(104.99)**</td>
</tr>
<tr>
<td>Hostility</td>
<td>1216</td>
<td>4.69</td>
<td>(20.64)*</td>
</tr>
<tr>
<td>Social Des.</td>
<td>1216</td>
<td>2.24</td>
<td>(11.49)</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>1216</td>
<td>13.56</td>
<td>(40.04)**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Value</th>
<th>Approx. F</th>
<th>Hypoth. DF</th>
<th>Error DF</th>
<th>Sig. Of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillais</td>
<td>.1054</td>
<td>3.5330</td>
<td>7.00</td>
<td>210.00</td>
<td>.001</td>
</tr>
<tr>
<td>Hotellings</td>
<td>.1178</td>
<td>3.5330</td>
<td>7.00</td>
<td>210.00</td>
<td>.001</td>
</tr>
<tr>
<td>Wilks</td>
<td>.8946</td>
<td>3.5330</td>
<td>7.00</td>
<td>210.00</td>
<td>.001</td>
</tr>
<tr>
<td>Roys</td>
<td>.1054</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Values enclosed in parentheses represent mean square errors.

*p<.05, **p<.01
Table 15
Unmatched Sample T-test from Male Students for Attitudes Toward Women, Depression, Rape Myth Acceptance, Anxiety, Hostility Toward Women, Social Desirability and Self-Esteem

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline (n=124)</th>
<th>Follow-up (n=94)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Toward Women</td>
<td>15.58</td>
<td>16.98</td>
<td>.009</td>
</tr>
<tr>
<td>Depression</td>
<td>5.57</td>
<td>9.56</td>
<td>.001</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>38.00</td>
<td>43.30</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Anxiety</td>
<td>28.65</td>
<td>32.51</td>
<td>.006</td>
</tr>
<tr>
<td>Hostility Toward Women</td>
<td>22.28</td>
<td>23.63</td>
<td>.031</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>25.79</td>
<td>25.06</td>
<td>.136</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>33.75</td>
<td>30.56</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
Significant differences did exist between the pre-test group and the post-test group in terms of the variables Attitudes Toward Women, Depression, Rape Myth Acceptance, Anxiety, Hostility Toward Women, and Self-Esteem. The follow-up group of respondents differed significantly from the baseline groups in that they reported more anti-feminist views of women, higher levels of depression, a more frequent endorsement of rape myths, a higher level of anxiety, greater hostility toward women, and a lower level of self-esteem.

There were a total of 215 females in the baseline administration and 151 in the follow-up administration. MANOVA and T-test analyses were conducted to see if any differences exist between these two groups across all of the variables. The results are displayed in Table 16 and 17.

The baseline and follow-up groups differed significantly for the variables of Attitudes Toward Women, Rape Myth Acceptance, and Self-Esteem. The women at the follow-up were significantly different from the baseline group, reporting more anti-feminist attitudes toward women, a greater endorsement of rape myths, and lower self-esteem.

For the 150 males in the baseline administration and the 120 males in the follow-up administration, the same MANOVA and t-test analyses were conducted for each variable as had been conducted with the females subjects. The results are displayed in Table 18 and 19.
Table 16

Multivariate Analysis of Variance for Changes in Females from Baseline to Follow-up

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes</td>
<td>1364</td>
<td>7.80</td>
<td>(21.49)**</td>
</tr>
<tr>
<td>Depression</td>
<td>1364</td>
<td>1.09</td>
<td>(58.33)</td>
</tr>
<tr>
<td>Rape Myth</td>
<td>1364</td>
<td>6.13</td>
<td>(148.56)*</td>
</tr>
<tr>
<td>Anxiety</td>
<td>1364</td>
<td>1.39</td>
<td>(119.32)</td>
</tr>
<tr>
<td>Aversion</td>
<td>1364</td>
<td>1.84</td>
<td>(141.79)</td>
</tr>
<tr>
<td>Social Des.</td>
<td>1364</td>
<td>2.97</td>
<td>(13.54)</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>1364</td>
<td>10.51</td>
<td>(39.21)**</td>
</tr>
</tbody>
</table>

Note. Values enclosed in parentheses represent mean square errors.

*p<.05, **p<.01
Table 17

T-test Analyses of Females

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline (n=215)</th>
<th>Follow-up (n=151)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean  SD</td>
<td>Mean  SD</td>
<td></td>
</tr>
<tr>
<td>Attitudes Toward Women</td>
<td>12.67 4.23</td>
<td>14.04 5.16</td>
<td>.007</td>
</tr>
<tr>
<td>Depression</td>
<td>7.36 6.77</td>
<td>8.20 8.72</td>
<td>.319</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>32.06 10.58</td>
<td>35.26 14.17</td>
<td>.019</td>
</tr>
<tr>
<td>Anxiety</td>
<td>32.83 11.05</td>
<td>34.20 10.74</td>
<td>.237</td>
</tr>
<tr>
<td>Sexual Aversion</td>
<td>64.11 11.58</td>
<td>65.82 12.34</td>
<td>.181</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>25.40 3.85</td>
<td>24.72 3.43</td>
<td>.080</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>32.54 5.76</td>
<td>30.38 6.92</td>
<td>.002</td>
</tr>
</tbody>
</table>
### Table 18

**Multivariate Analysis of Variance for Changes in Males from Baseline to Follow-up**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes</td>
<td>1268</td>
<td>10.09</td>
<td>(14.41)**</td>
</tr>
<tr>
<td>Rape Myths</td>
<td>1268</td>
<td>13.74</td>
<td>(99.73)**</td>
</tr>
<tr>
<td>Social Des.</td>
<td>1268</td>
<td>1.45</td>
<td>(10.49)</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>1268</td>
<td>15.28</td>
<td>(38.97)**</td>
</tr>
<tr>
<td>Hostility</td>
<td>1268</td>
<td>3.60</td>
<td>(19.90)</td>
</tr>
<tr>
<td>Depression</td>
<td>1268</td>
<td>14.30</td>
<td>(60.51)**</td>
</tr>
<tr>
<td>Anxiety</td>
<td>1268</td>
<td>6.81</td>
<td>(98.64)*</td>
</tr>
</tbody>
</table>

Note. Values enclosed in parentheses represent mean square errors

*p<.05, **p<.01
<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline (n=150)</th>
<th></th>
<th>Follow-up (n=120)</th>
<th></th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Attitudes Toward Women</td>
<td>15.64</td>
<td>3.74</td>
<td>17.12</td>
<td>3.86</td>
<td>.002</td>
</tr>
<tr>
<td>Depression</td>
<td>5.31</td>
<td>5.05</td>
<td>8.92</td>
<td>10.22</td>
<td>.001</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>38.43</td>
<td>9.62</td>
<td>42.97</td>
<td>10.43</td>
<td>.000</td>
</tr>
<tr>
<td>Anxiety</td>
<td>28.30</td>
<td>10.28</td>
<td>31.48</td>
<td>9.48</td>
<td>.009</td>
</tr>
<tr>
<td>Hostility Toward Women</td>
<td>22.25</td>
<td>4.51</td>
<td>23.28</td>
<td>4.40</td>
<td>.058</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>33.65</td>
<td>5.87</td>
<td>30.66</td>
<td>6.68</td>
<td>.000</td>
</tr>
</tbody>
</table>
The baseline and follow-up groups differed significantly on the variables Attitudes Toward Women, Rape Myth Acceptance, Self-Esteem, Depression, and Anxiety. The follow-up group reported a significantly higher level of anti-feminist attitudes toward women, a greater endorsement of rape myths, higher depression, lower self-esteem, and higher anxiety.

Item-by-Item Analysis

Taking into consideration the large number of items included in the questionnaire administered to the first-year college students, it seemed an interesting point of analysis to determine which of the items are associated with the likelihood to attack a woman by engaging in sexually aggressive or sexually assaultive behaviors. Although exploratory, such an analysis proved to yield interesting findings which, nonetheless, remain secondary to the results of the five hypotheses discussed previously. Thus, a forward step-wise logistic regression was performed to determine which items reflect the greatest prediction or potential to attack.

With this many variables, in terms of the individual items included in the questionnaire, it is not feasible to run a single logistic regression. It seemed the most appropriate means of determining "a subset of variables that includes only statistically significant predictors" (Wright, 1995, p. 240) was to use an iterative logistic regression. There are different forms of iterative logistic
regressions including forward in which "variables are tested, one at a time, for entry into the model. The first variable added is the variable whose likelihood ratio is smallest among the statistically significant predictors" (Wright, 1995, p. 240). In a forward step-wise logistic regression, the difference is that "each variable is tested for entry into the model. Whenever a predictor is entered..., other variables...are tested for removal" (Wright, 1995, p. 240). The results of this Forward Step-wise Logistic Regression analysis are displayed in Table 20.

Each questionnaire was abbreviated for the purpose of the Table as follows: The Rape Myth Acceptance Scale (RMAS; Burt, 1980; Newman & Colon, 1994), the Beck Depression Inventory (DEP; Beck, 1978), the Social Desirability Scale (SDS; Strahan & Gerbasi, 1972), the Hostility Toward Women Scale (HTW; Lonsway & Fitzgerald, 1995), the Self-Rating Scale (SR; Rosenberg, 1965), and the Attitudes Toward Women Scale (ATWS; Spence & Helmreich, 1978). The Self-Analysis Form (Cattell & Scheier, 1963) consists of two main sub-scales, one that measures overt anxiety (O) and one that measures covert anxiety (C). In addition to these two main sub-scales, the instrument has five minor sub-scales that measure guilt proneness (Guilt), ego weakness (Ego), lack of self-sentiment (Lack), id pressure (Id), and suspiciousness (Sus). These sub-scales were used to identify each item in the logistic regression.
According to the forward step-wise logistic regression statistical analysis, the item that is the most significant predictor of a male attacking a female, based upon this sample, is the item RMAS #9 from Rape Myth Acceptance Scale which states "A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex." Men who "Strongly Agree" with this statement are more likely to attack a woman than men who "Strongly Disagree" with this statement. A chi-square was then performed to test the differences between groups categorized by the subjects responses to the individual item. The differences are visible in Figure 5. The groups were found to be significantly different at the p<.001 level.

The second highest predictor variable is the eleventh item DEP #11 from the Beck Depression Inventory that requires the subject to select one of the four following statements:

0    I don't feel I am being punished.
1    I feel I may be punished.
2    I expect to be punished.
3    I feel I am being punished.

The higher the number of the statement endorsed by the male subject the more likely he is to attack based upon the sample from this study. A chi-square was also performed on this item, and significant differences were found
between groups at the p<.001 level. These results are visible in Figure 6.
Table 20

Logistic Regression of the Collated Items to Identify the Most Important Predictor of a Likelihood to Attack by Males

<table>
<thead>
<tr>
<th>Item / Variable</th>
<th>Improvement</th>
<th>Step</th>
<th>Chi-Square</th>
<th>P-Value</th>
<th>Model Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMAS #9 (Rape Myths)</td>
<td>29.667</td>
<td>1</td>
<td>29.667</td>
<td>.000</td>
<td>29.667</td>
</tr>
<tr>
<td>DEP #11 (Depression)</td>
<td>18.883</td>
<td>2</td>
<td>48.550</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>SDS #2 (Social Desir)</td>
<td>10.657</td>
<td>3</td>
<td>59.207</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>DEP #7 (Depression)</td>
<td>7.733</td>
<td>4</td>
<td>66.940</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>CGUILT #6 (Covert Guilt)</td>
<td>7.329</td>
<td>5</td>
<td>74.270</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>CID #3 (Covert Id)</td>
<td>7.435</td>
<td>6</td>
<td>81.705</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td>RMAS #12 (Rape Myths)</td>
<td>7.346</td>
<td>7</td>
<td>89.050</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>OGUILT #1 (Overt Guilt)</td>
<td>6.476</td>
<td>8</td>
<td>95.527</td>
<td>.011</td>
<td></td>
</tr>
<tr>
<td>SR #7 (Self-Rating)</td>
<td>7.687</td>
<td>9</td>
<td>103.21</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td>RMAS #6 (Rape Myths)</td>
<td>5.489</td>
<td>10</td>
<td>108.70</td>
<td>.019</td>
<td></td>
</tr>
<tr>
<td>RMAS #5 (Rape Myths)</td>
<td>6.260</td>
<td>11</td>
<td>114.96</td>
<td>.012</td>
<td></td>
</tr>
<tr>
<td>RMAS #1 (Rape Myths)</td>
<td>3.906</td>
<td>12</td>
<td>118.87</td>
<td>.048</td>
<td></td>
</tr>
<tr>
<td>CGUILT #5 (Covert Guilt)</td>
<td>3.952</td>
<td>13</td>
<td>122.82</td>
<td>.047</td>
<td></td>
</tr>
<tr>
<td>SDS #8 (Social Desir)</td>
<td>2.690</td>
<td>14</td>
<td>125.51</td>
<td>.101</td>
<td></td>
</tr>
</tbody>
</table>
The remaining items identified by the forward step-wise logistic regression were as follows:

**SDS #2:** "There have been occasions when I have taken advantage of someone." (High)

**DEP #7:**
0. I get as much satisfaction out of things as I used to.
1. I don't enjoy things the way I used to.
2. I don't get real satisfaction out of anything anymore.
3. I am dissatisfied or bored with everything." (High)

**CGUILT #6:** "I find myself upset rather than helped by the kind of personal criticism that many people make: often, occasional, or never." (High)

**CID #3:** "I sometimes doubt whether people I am talking to are really interested in what I am saying": true, in between, or false." (True)

**RMAS #12:** "A raped woman is a responsible victim, not an innocent one." (High)

**OGUILT #1:** "I feel grumpy and just do not want to see people: (A) occasionally, (B) rather often, or in between." (B)

**SR #7:** "I feel that I have a number of good qualities." (Low)

**RMAS #6:** "The typical rape victim is young and attractive." (High)
RMAS #5: “In the majority of rapes, the victim is promiscuous or has a bad reputation.” (High)

RMAS #1: “Rape of a woman by a man she knows can be defined as a ‘woman who changed her mind afterwards’.” (High)

CGUILT #5: If people take advantage of my friendliness I: (A) soon forget and forgive, (B) resent it and hold it against them, or in between.” (B)

SDS #8: “I never resent being asked a favor.” (Low)

To determine the best predictor of males who assault a logistic regression was used. Results are displayed in Table 21.

The eleventh question from the Beck Depression Inventory, which was found to be the second strongest predictor of a males likelihood to attack, is the strongest predictor of a males who assault (p<.001). This is the question

0 I don’t feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished. (High)

The relationship between groups of males who attack, males who are aggressive and males who assault, based upon their response to this question is demonstrated in Figure 6. A high score on this question was the best predictor
that the man will assault. The differences between the men, based upon their response to this question, was found to be statistically significant at the $p < .001$ level.
(A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex)

Predictive Value of Item #9 on the Rape Myth Acceptance Scale

![Bar chart showing the predictive value of Item #9 on the Rape Myth Acceptance Scale. The bars represent different levels of agreement with the myth, ranging from 'Disagree' to 'Strongly Agree'. The chart indicates a significant association between accepting the myth and engaging in violent sexual behaviors.]

Response to item RMAS #9

Figure 5. Chi-Square Demonstrating the significance of Rape Myth Acceptance Scale Item #9 as a Predictor of Males Engaging in Violent Sexual Behaviors
(I don’t feel I am being punished; I feel I may be punished; I expect to be punished; I feel I am being punished)

Predictive Value of Item #11 on the Beck Depression Inventory

Figure 6: Chi-Square Demonstrating the significance of Beck Depression Inventory Item #11 as a Predictor of Males Engaging in Violent Sexual Behaviors
The remaining questions found to be statistically significant predictors of a male's likelihood to attack were as follows:

SDS #8: "I never resent being asked a favor." (Low)

DEP #7: * 0 I get as much satisfaction out of things as I used to.
1 I don't enjoy things the way I used to.
2 I don't get real satisfaction out of anything anymore.
3 I am dissatisfied or bored with everything." (High)

OEGO #3: "I sometimes feel compelled to count things for no particular purpose: true, uncertain or false." (True)

SDS #2: "There have been occasions when I have taken advantage of someone." (High)

CGUILT #6: "I find myself upset rather than helped by the kind of personal criticism that many people make: often, occasional, or never." (High)

OID #1: "My nerves get on edge so that certain sounds, e.g. a screechy hinge, are unbearable and give me the shivers: often, sometimes, or never." (Often)

RMAS #9: "A woman who goes to the home or apartment of a man of their first date implies that she is willing to have sex." (High)
OGUILT #5: "My spirits generally stay high no matter how many troubles I meet: yes, in between, or no." (No)

This same analysis, a logistic regression was also conducted with men who reported perpetrating aggressive sexual acts against women. These results are outlined in Table 22.
Table 21

Logistic Regression of the Collated Items to Identify the Most Important Predictor of a Likelihood to Assault by Males

<table>
<thead>
<tr>
<th>Item/Variable</th>
<th>Step</th>
<th>Improvement Chi-Square</th>
<th>P-Value</th>
<th>Model Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEP #11 (Depression)</td>
<td>1</td>
<td>29.267</td>
<td>.000</td>
<td>29.267</td>
</tr>
<tr>
<td>SDS #8 (Social Desir)</td>
<td>2</td>
<td>13.952</td>
<td>.000</td>
<td>43.218</td>
</tr>
<tr>
<td>DEP #7 (Depression)</td>
<td>3</td>
<td>9.960</td>
<td>.002</td>
<td>53.178</td>
</tr>
<tr>
<td>OEGO #3 (Overt/Ego)</td>
<td>4</td>
<td>9.519</td>
<td>.002</td>
<td>62.698</td>
</tr>
<tr>
<td>SDS #2 (Social Desir)</td>
<td>5</td>
<td>7.854</td>
<td>.005</td>
<td>70.552</td>
</tr>
<tr>
<td>CGUILT #6 (Covert/Guilt)</td>
<td>6</td>
<td>8.110</td>
<td>.004</td>
<td>78.663</td>
</tr>
<tr>
<td>OID #1 (Overt/IId)</td>
<td>7</td>
<td>5.896</td>
<td>.015</td>
<td>84.558</td>
</tr>
<tr>
<td>RMAS #9 (Rape Myths)</td>
<td>8</td>
<td>4.510</td>
<td>.034</td>
<td>89.068</td>
</tr>
<tr>
<td>CGUILT #5 (Covert/Guilt)</td>
<td>9</td>
<td>4.952</td>
<td>.026</td>
<td>94.020</td>
</tr>
<tr>
<td>OID #2 (Overt/IId)</td>
<td>10</td>
<td>2.860</td>
<td>.091</td>
<td>96.880</td>
</tr>
</tbody>
</table>
Table 22

Logistic Regression of the Collated Items to Identify the Most Important Predictor of a Likelihood to be Aggressive Sexually by Males

<table>
<thead>
<tr>
<th>Item/Variable</th>
<th>Step</th>
<th>Improvement</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Chi-Square</td>
<td>P-Value</td>
</tr>
<tr>
<td>RMAS #9(Rape Myths)</td>
<td>1</td>
<td>24.650</td>
<td>.000</td>
</tr>
<tr>
<td>DEP #7(Depression)</td>
<td>2</td>
<td>14.787</td>
<td>.000</td>
</tr>
<tr>
<td>SDS #2(Social Desir)</td>
<td>3</td>
<td>11.697</td>
<td>.001</td>
</tr>
<tr>
<td>RMAS #12(Rape Myths)</td>
<td>4</td>
<td>9.179</td>
<td>.002</td>
</tr>
<tr>
<td>CGUILT #6(Covert/Guilt)</td>
<td>5</td>
<td>7.002</td>
<td>.008</td>
</tr>
<tr>
<td>CID #3(Covert/Id)</td>
<td>6</td>
<td>6.446</td>
<td>.011</td>
</tr>
<tr>
<td>DEP #11(Repression)</td>
<td>7</td>
<td>6.227</td>
<td>.013</td>
</tr>
<tr>
<td>SR #7(Self-Rating)</td>
<td>8</td>
<td>5.996</td>
<td>.014</td>
</tr>
<tr>
<td>OGUILT #1(Overt/Guilt)</td>
<td>9</td>
<td>5.997</td>
<td>.014</td>
</tr>
<tr>
<td>RMAS #6(Rape Myths)</td>
<td>10</td>
<td>5.146</td>
<td>.023</td>
</tr>
<tr>
<td>RMAS #5(Rape Myths)</td>
<td>11</td>
<td>5.011</td>
<td>.025</td>
</tr>
<tr>
<td>RMAS #1(Rape Myths)</td>
<td>12</td>
<td>2.953</td>
<td>.086</td>
</tr>
</tbody>
</table>
As with men who attack, Rape Myth Acceptance Scale item #9 is also the strongest predictor in this sample that a male will be sexually aggressive with a female. This item and the other statistically significant predictors of sexual aggression in males are as follows:

RMAS #9: “A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex.” (High)

DEP #7: “0 I get as much satisfaction out of things as I used to.
1 I don’t enjoy things the way I used to.
2 I don’t get real satisfaction out of anything anymore.
3 I am dissatisfied or bored with everything.” (High)

SDS #2: “There have been occasions when I have taken advantage of someone.” (High)

RMAS #12: “A raped woman is a responsible victim, not an innocent one.” (High)

CGUILT #6: “I find myself upset rather than helped by the kind of personal criticism that many people make: often, occasional, or never.” (Often)

CID #3: “I sometimes doubt whether people I am talking to are really interested in what I am saying: true, in between,
false." (True)

DEP #11:  "0  I don't feel I am being punished.
1  I feel I may be being punished.
2  I expect to be punished.
3  I feel I am being punished." (High)

SR #7:  "I feel that I have a number of good qualities." (Low)

OGUILT #1: :"I feel grouchy and do not want to see people: (A)
ocasionally, (B) rather often, or in between." (B)

RMAS #6: "The typical rape victim is young and attractive." (High)

RMAS #5: "In the majority of rapes, the victim is promiscuous or has a
bad reputation." (High)

RMAS #1: "Rape of a woman by a man she knows can be defined as a
'woman who changed her mind afterwards'." (High)

Tables 20, 21 and 22 provide a clear illustration of the items which are
the strongest predictors of either aggressive or assaultive sexual behaviors, as
well as the combination of these two groups. Several items are significant for
all three of these groups: Rape Myth Acceptance #9, Depression #11, Social
Desirability #2, Depression #7, and Covert/Guilt Anxiety #6. There are also
more item-by-item similarities between the group of Aggressive men and the
Attack group than there are between the Assault and Attack groups.
Because of the prevalence of Rape Myth and Depression questions as predictors of violent sexual behavior, a graph of the responses provided by the post-test subjects was completed to determine if indeed there is a correlation between Depression, Rape Myth Acceptance and the likelihood to attack. In Figure 7, men who attack have high scores on the Rape Myth Acceptance Scale and the Beck Depression Inventory (BDI). In Figure 7, RMAS represents scores on the Rape Myth Acceptance Scale. Both sets of scores are from the post-test administration. In addition, Figure 8 illustrates the confidence intervals related to the scores plotted in Figure 7. The boxes illustrate the areas encompassed by the 95% confidence intervals for scores of depression and rape myth acceptance. The 95% confidence interval for attackers (males with high depression and rape myth scores) is very distinct from the area encompasses by the non-attackers (low depression and rape myth scores) confidence interval.
Figure 7. Plot Diagram of Scores on the Rape Myth Acceptance Scale and the Beck Depression Inventory for Males who Report Engaging in Sexually Assaultive or Sexually Aggressive Behaviors
Figure 8. 95% Confidence Intervals (CI) for Attackers vs. Non-attackers on the Rape Myth Acceptance Scale and the Beck Depression Inventory
Next, to determine if any interactions between variables existed, a logistic regression on the total scores was completed. This revealed which assessment instruments were the strongest predictors of males who attack based upon total scores rather then individual questions. The results are displayed in Table 23.

The strongest predictors of a likelihood to attack based upon the logistic regression were high levels of depression, then low levels of social desirability, then high levels of rape myth acceptance, and lastly high levels of anxiety. After the completion of this logistic regression, additional interactions became apparent. The results of the logistic regression conducted after adjusting for the total score variables are displayed in Table 24.

Based upon these interactions, scatter plot graphs were conducted in order to better illustrate the relationships between these variables, accompanied by graphs providing the visualization of the confidence intervals related to each plot diagram. Figure 9 displays the interaction between total anxiety scores and total social desirability scores. Males are more likely to attack a women sexually if total scores on the Social Desirability Scale are low and total scores on the Self-Analysis Form, which measures anxiety, are high. The 95% confidence intervals pertaining to these findings are illustrated in Figure 10. Figure 11 illustrates that males with high anxiety scores and high
rape myth acceptance scores are more likely to attack. The confidence intervals related to these findings are illustrated in Figure 12. Lastly, Figure 13 illustrates that males with high depression scores and high anxiety scores are more likely to attack a women sexually with the confidence intervals illustrated in Figure 14.
Table 23

Independent Predictors of Sexually Aggressive/Assaultive Males

<table>
<thead>
<tr>
<th>Item/ Variable</th>
<th>Improvement</th>
<th>Step</th>
<th>Chi-Square</th>
<th>P-Value</th>
<th>Model</th>
<th>Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression (BDI)</td>
<td></td>
<td>1</td>
<td>27.786</td>
<td>.000</td>
<td></td>
<td>27.786</td>
</tr>
<tr>
<td>Social Desirability</td>
<td></td>
<td>2</td>
<td>19.719</td>
<td>.000</td>
<td></td>
<td>47.505</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td></td>
<td>3</td>
<td>9.668</td>
<td>.002</td>
<td></td>
<td>57.173</td>
</tr>
<tr>
<td>Anxiety (Self-Analysis)</td>
<td></td>
<td>4</td>
<td>4.712</td>
<td>.030</td>
<td></td>
<td>61.885</td>
</tr>
</tbody>
</table>
Table 24

Logistic Regression of Total Scores from Males who Self-Reported Engaging in Sexually Aggressive or Sexually Assaultive Behaviors

<table>
<thead>
<tr>
<th>Interaction of Variables</th>
<th>Improvement</th>
<th></th>
<th></th>
<th>Model</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step</td>
<td>Chi-Square</td>
<td>P-Value</td>
<td>Chi-Square</td>
<td>P-Value</td>
</tr>
<tr>
<td>Anxiety by Social Desir.</td>
<td>1</td>
<td>5.303</td>
<td>.021</td>
<td>5.303</td>
<td>.021</td>
</tr>
<tr>
<td>Social Desirability by Rape Acceptance</td>
<td>2</td>
<td>4.983</td>
<td>.026</td>
<td>10.286</td>
<td>.006</td>
</tr>
<tr>
<td>Anxiety by Rape Myth Acceptance</td>
<td>3</td>
<td>4.022</td>
<td>.045</td>
<td>14.309</td>
<td>.003</td>
</tr>
</tbody>
</table>
Figure 2. Plot Diagram of Scores on the Social Desirability Scale and the Self-Analysis Form (Anxiety) for Males who Report Engaging in Sexually Assaultive or Sexually Aggressive Behaviors.
Figure 10. 95% Confidence Intervals (CI) for Attackers vs. Non-attackers on the Social Desirability Scale and the Self-Analysis Form (Anxiety)
Figure 11. Plot Diagram of Scores on the Rape Myth Acceptance Scale and the Self-Analysis Form (Anxiety) for Males who Report Engaging in Sexually Assaultive or Sexually Aggressive Behaviors
Figure 12. 95% Confidence Intervals (CI) for Attackers vs. Non-Attackers on the Rape Myth Acceptance Scale and the Self-Analysis Form (Anxiety)
Figure 13. Plot Diagram of Scores on the Beck Depression Inventory and the Self-Analysis Form (Anxiety) Males who Report Engaging in Sexually Assaultive or Sexually Aggressive Behaviors
Figure 14. 95% Confidence Intervals (CI) for Attackers vs. Non-attackers on the Beck Depression Inventory and the Self-Analysis Form (Anxiety)
CHAPTER V

Discussion

Restatement of the Problem

The purpose of this study was to assess the frequency of sexually assaultive and sexually aggressive behaviors perpetrated by males against females during the first semester of the first year of college. In addition, this study then analyzed several characteristics that may be related to the perpetration of these behaviors or the effects of being victimized in this manner. These specific characteristics consisted of depression, anxiety, self-esteem, attitudes toward women, sexual aversion (women only), hostility toward women (men only), rape myth acceptance, and social desirability. Hypotheses were based preliminarily upon previous findings that the largest occurrence of sexual assault or attempted sexual assault is during the first semester of college at which time many students are away from home on their own for the first time. The remaining hypotheses were based upon a number of studies indicating relationships between these variables and either perpetration, victimization or both.

Discussion

Although statistical analyses of the data yielded significant results supportive of a number of the hypotheses, this study does not clearly support
all of the hypotheses formulated. It must also be reiterated that results which are consistent with previous findings are not as strong as initial intended because of the change in the design of the study. Without a matched pairs design, there is no concrete baseline established for comparison. Thus, although significant, some results are purely an analysis of the follow-up results rather than a pre-post comparison. It is important to keep in mind that any pre-post comparisons conducted were done so with caution in order to strengthen the results but still are determined from the same subject pool but not the exact same subjects.

Contrary to hypothesis one, it was found that there was a decrease in the reported level of self-esteem among the males in the entire sample, as well as the 26 matched pairs. These results do not support the hypothesis that males would report an increase in self-esteem, attempting to correlate sexual experience with self-image. Because of the large number of other contributing factors that could be involved (personally and academically), this drop in the level of self-esteem reported by the male respondents could be attributable to a number of variables rather than sexual experience, including academic performance, personal relationships, and adjustment to college.

These findings are also inconsistent with previous research studies. Men who have been exposed to rape (not necessarily via direct experience) have
been found to have higher levels of self-esteem (Bohner, et al., 1993). It could be that the findings of this study, based purely upon the hypothesis that an increase in sexual experience would correlate with an increase in self-esteem, did not take into consideration any other contributing factors. Research has shown that men with high rape myth acceptance tend to have high levels of self-esteem (Bohner, et al., 1993). It has also been shown that men's self-esteem is correlated with their attitudes toward women (Brownmiller, 1975). However, there is still very little research that addresses this issue and thus, although inconsistent, it is difficult to determine contributing factors without additional studies to compare these findings.

Hypothesis two addressed the change in variables that would occur for the group of women reporting victimization of either a sexually assaultive act. No significant differences were found between these women and the women who had experienced consensual sex or had not engaged in consensual sex for the majority of the variables studied except the variables depression and anxiety. In support of the hypothesis, the group of women who had been sexually assaulted were significantly more depressed and anxious than the respondents from the other groups.

Although the findings pertaining to depression and anxiety are consistent with previous literature, it is surprising, based upon previous studies,
that no other significant relationships were found. There is a considerable amount of research which supports the occurrence of posttraumatic stress disorder symptomology in rape survivors including depression, anxiety, sexual dysfunction, and decreased self-esteem. These symptoms can remain present for anywhere from 18 months to several years (Davidson & Foa, 1991; Katz & Mazur, 1979; Kilpatrick et al., 1979a, 1979b; Resick, 1987; Resick et al., 1981; Rothbaum et al., 1992). This study, having yielded results supportive of the trends in the literature pertaining to depression and anxiety, would have also yielded a decrease in self-esteem for survivors had it been consistent with previous research studies.

It is difficult to ascertain exact reasons why survivors did not also report low levels of self-esteem and high levels of sexual aversion, especially taking into consideration the report of high levels of depression and anxiety. There are a number of other variables that could be nullifying the effect an assault has on a woman in terms of her self-esteem and sexual experiences. Being educated female students, perhaps their experiences in college have been able to combat any effect the assault may have had on their self-esteem. In addition, with the increased awareness of the issue of rape these women may be more informed about rape and thus, are not experiencing the symptomology, such as PTSD, as would have been expected. Also, the
individual's willingness to report being assaulted is a possible reflection of their own awareness of the experience. Thus, they may not be experiencing low self-esteem or high sexual aversion even though the assault has still caused a degree of anxiety and depression.

Research also supports the finding that rape survivors experience a higher level of rape myth acceptance (Burt, 1988; Koss & Dinero, 1988; Roth & Lebowitz, 1988). Rape survivors also tend to have more non-feministic attitudes toward women (Baron & Straus, 1986; Hull & Burke, 1991; Sanday, 1981) and to exhibit higher levels of sexual aversion (Crenshaw, 1985; Ellis, et al., 1980; Holstrom & Burgess, 1978; Kaplan, 1987; Kaplan, 1988).

The fact that this study is consistent with previous findings for the variables of depression and anxiety could be accounted for by a number of factors. Anderson and Cummings (1993) indicated an important factor in analyzing rape survivors is that women who hold more traditional, non-feminist views of women have a greater likelihood of being assaulted than women with more pro-feminist attitudes, although no causal relationships could be determined. Thus, based upon previous research, it was anticipated that rape survivors would have higher levels of anti-feministic attitudes as well as lower self-esteem, higher sexual aversion, and higher rape myth acceptance. Unfortunately it seems difficult to ascertain what the factors are that would
contribute to finding no significant differences concerning these variables.

One possible explanation for the variables of Rape Myths and Self-esteem is that, even when a woman has been raped, if she does not endorse rape myths (false beliefs about rape), then she is likely to have higher self-esteem than survivors who do endorse rape myths (Bohner, et al., 1993). These results were contrary to the majority of findings in previous literature, but provide a possible explanation. Perhaps, as educated women, survivors were less likely to endorse rape myths than survivors from a more representative sample of educational levels.

Most studies analyzing rape myth acceptance have utilized college students as participants (Anderson & Cummings, 1993; Ashton, 1982; Bohner et al., 1993; Costin, 1985; Costin & Schwarz, 1987; Spohn, 1993). However, age has been analyzed with mixed results both among students (Dull & Giacopassi, 1987; Gilmartrin-Zena, 1987; Hamilton & Yee, 1990; Mynatt & Allgeier, 1990) and non-students (Burt 1980; Dye & Roth, 1990; Field, 1978a, 1978b) yielding results that indicate positive, negative, partial and insignificant relationships between rape myth acceptance and age. A few studies have also examined the relationship between education and rape myth acceptance but no general conclusion has been supported by the results (Burt, 1980; Burt & Albin, 1981; Feild, 1978a, 1978b; Ward, 1988).
The lack of rape myth acceptance may have been accompanied by a diminished effect on the self-esteem of the survivors. It seems plausible that the education these women are receiving may have a counter effect on the survivors' attitudes toward women, and, thus, the trend toward non-feminist attitudes did not occur. Lastly, as found in previous literature, women who hold pro-feminist attitudes are more likely to identify their experiences as a rape than women who hold non-feminist attitudes (Calhoun & Townsley, 1991). However, this study seemed to have addressed this by not only inquiring about the occurrence of a sexual assault but also a number of other behaviors, although not worded as a rape, that do meet the legal definition.

Men who reported perpetrating sexually assaultive or aggressive acts were hypothesized to report higher levels of rape myth acceptance, higher levels of hostility toward women, and more non-feminist views of women. This hypothesis was supported by the data. Significant differences were found between the group of men who perpetrated a sexual assault and the group of men who had engaged only in consensual sex or had not engaged in sexual intercourse at all.

These findings are consistent with previous research that men who engage in sexually aggressive and assaultive acts, and men who self-report a mere likelihood to rape, also express a pattern of accepting stereotypical rape
myths including blaming the victim and tolerating rape (Koss, et al., 1985; Malamuth & Check, 1980; Malamuth, et al., 1980; Muehlenhard & Linton, 1987; Reilly, et al., 1991; Tieger, 1981). Previous research has found strong correlations between rape myth acceptance and violent behavior (Burt & Albin, 1981; Check & Malamuth, 1985; Fonow, et al., 1992; Murphy, et al., 1986; Mynatt & Allgeier, 1990; Quackenbush, 1989; Reilly, et al., 1992; Senn & Radtke, 1990; Ward, 1988), as well as correlations with high levels of hostility toward women (Lonsway & Fitzgerald, 1995). This study is further evidence supporting these previous findings.

Although no causal relationships can be determined, this study further supports previous findings that men's sex-role orientations are related to a likelihood to commit violent and sexually aggressive acts (Burke, Stets & Pirog-Good, 1988; Check & Malamuth, 1983; Mosher & Anderson, 1986). Men with more anti-feminist attitudes are more likely to support rape myths (Calhoun & Townsley, 1991). Men who perpetrate sexually aggressive and assaultive acts seem to have more conservative views of women (Hull & Burke, 1991).

To determine the relationship between men who perpetrate any unwanted sexual activity and men who do not, for the purpose of this study an additional group was created. They were labeled the Attack group and
consisted of men who were in either the Aggressive group or the Assault group. This group was compared to the Non-Attackers group which consisted of the men from the Consensual Sex group or the No Sex group. Significant differences were found between these two groups, further supporting this hypothesis. Men who had reported perpetration of some type of unwanted sexual activity against a woman reported significantly higher levels of rape myth acceptance, more anti-feminist attitudes, and higher levels of hostility toward women. These findings, along with those pertaining to the specific assaultive and aggressive groups of males, led to the same conclusions seen in previous research studies. Many parallels, and few variations, from previous research findings have been found in this study in terms of the male respondents.

In addition, for exploratory purposes, these two groups were compared in terms of the variables anxiety and depression. Men who were in the Attack group experienced significantly higher levels of depression and anxiety. Although previous literature indirectly addresses these two variables, no studies have addressed the levels of anxiety and depression experienced by perpetrators. The self-esteem of males who endorse rape myths is higher than their male counterparts (Bohner, et al., 1993). Low self-esteem has been correlated with high depression and high anxiety (Rosenberg, 1989). Thus, it
would have been expected that men who perpetrate sexually aggressive or assaultive acts would have higher self-esteem, thus contributing to less depression and anxiety. But, the contrary was found. This may be attributable to their perpetrating an act that, although it frequently occurs on a college campus, is by no means condoned and often actively combated by colleges and universities.

It had also been hypothesized (hypothesis four) that a further analysis of the males who had not perpetrated a sexually assaultive act, but had perpetrated an act that was sexually aggressive, would report levels of the psychological variables in question that fell between the assaultive males and the non-attacking group. Although the differences were not statistically significant, the distribution of the mean scores did support this hypothesis except for the variable Attitudes Toward Women. The men who had engaged only in consensual sex had a slightly higher mean than the aggressive males. Thus, these findings were not a surprise and were consistent with previous literature except for the one variable. It is difficult to determine exactly why this variable and no others fell outside of the anticipated pattern.

A similar hypothesis was formulated for the women which predicted that women who had been victims of a sexually aggressive acts would report psychological characteristics falling between the group of women who had not
been victimized and the victims of a sexual assault. The hypothesis was supported for the variables of depression and anxiety. For the remaining variables analyzed, the aggressed-against group of women fell either at the high end of the spectrum or the low end. The women in the aggressed against group had the most pro-feminist attitudes, the lowest level of support for rape myths, the lowest level of sexual aversion, and the highest levels of self-esteem. It is difficult to conclude what these occurrences may be attributable to considering the number of other factors that could have contributed to these self-reports. Perhaps certain experiences strengthen a woman. These findings seem out of the ordinary and certainly do not follow the patterns seen in previous research studies.

Because this study included a number of variables it seemed relevant to conduct exploratory analyses. First, a reliability analysis was conducted to clarify that the integration of items did not threaten or damage the reliability of each instrument. Although some variations of the reliability scores did occur compared to published psychometrics, the largest difference was .09 on the Hostility Toward Women scale. All other instruments were either higher than previously published psychometrics or within .05 of the original. Thus, the reliabilities of the instrument, although some were slightly different, were not sacrificed by integrating the items together.
The design of the study had originally been intended as a repeated-measures design. However, because an insufficient number of matched pairs of respondents was obtained, it was no longer possible to conduct a matched-pairs analysis. Such a design would have provided stronger results concerning comparisons between the beginning of the semester (September) and the end (November). Instead, the design was altered to analyze the data collected at the end of the academic semester to determine the relationships between sexual experience and certain psychological characteristics and attitudes. Analyses between the first administration, conducted during the second week of the first semester of college, and the administration from the end of the semester become strictly exploratory. The data, and these analyses, yielded a number of interesting findings.

It was predicted that 25% of the males and 25% of the females would have experienced a sexual assault during the first semester of the first year of college. Results indicated that 22.5% of the females reported being victims of an act that met the legal definition of sexual assault while 23.3% of the males reported perpetrating an act that met the legal definition of sexual assault. In addition, 25.2% of the females reported being victims of some form of a sexually aggressive act. Thus, the total of women reporting some type of victimization was 47.7%, almost half of the sample. For the males, an
additional 15.8% reported perpetrating some form of a sexually aggressive act.

Of the total male sample, 39.1% reported perpetrating some type of sexually aggressive act.

These findings are consistent with the research that has shown prevalence rates of rape and sexual aggression to range from 15% to 96%, although the majority of the research has shown that the average number of women who experience a sexual assault is approximately 25% (Baier, et al., 1991; Bridgeland, et al., 1993; Kanin, 1957; Kanin & Parcell, 1977; Kilpatrick, 1977; Koss, 1988; Lundberg-Love & Geffner, 1989; Roiphe, 1993; Skelton, 1982). Previous research also supports these findings with ranges of self-reported perpetration from 4.3% to 27% (Koss, 1988; Mosher & Anderson, 1986). These assaults most frequently occur during the first semester of the first year of college (Aizenman & Kelley, 1988; Warshaw, 1988).

It was also predicted that an increase in the amount of sexual activity, engaged in by the students, would increase over the course of the semester.

From the September administration to the November administration, the total sample reported a decrease in the number of students reporting that they had never had sex. Although the decrease was slight for males (only 3.5%), the females reported a decrease of 13.5% in those who had never had sex. This
comparison is vague, though, because the total sample was not a matched sample. The sample reported an increase in aggressive and sexually assaultive experiences in addition to the decrease in the number of students reporting abstinence. Although the data appear to support the hypothesis, such conclusions would have been strengthened had the sample been a matched sample or a pooling of the entire class of first-year students.

Previous research has found evidence for an increase during the first semester of college in adolescent sexual activity attributable to a number of factors. Students are often away from home for the first time and are exploring new-found freedom. Students also find themselves with many new opportunities for exploration, including sexuality. In addition, students are often living in residential facilities shared by members of the opposite sex (Abbey, 1991; Koss, 1988, 1998; Warshaw, 1988).

There were 57 women who completed the questionnaire both in September and November. Results of the November administration indicated that this group of women became more anti-feministic in their attitudes toward women, had lower self-esteem, and lower levels of depression. Of these women, none had been raped at the time of the September administration. Nine had been at the November administration. That means that of these 57 women, 16% reported being victims of a sexual assault compared to 23% of
the total sample. Taking into consideration the change in sexual experiences, the changes in psychological characteristics and attitudes were expected except for the decrease in depression. These women were less depressed. Because of the increase in victimization, a higher level of depression would have been consistent with previous research (Frank, et al., 1979; Katz & Mazur, 1979; Kilpatrick, et al., 1979a, 1979b; Resick, et al., 1981). The opposite trend would have been expected, but perhaps did not emerge as a result of the small sample size of matched-pair females.

There were 26 men who completed the questionnaires at both administrations. No significant differences were found for any of the variables (depression, anxiety, attitudes toward women, hostility toward women, rape myth acceptance, self-esteem, and social desirability). This seems to be attributable to the fact that the sample of male matched pairs was rather small and not a representative group. Also, it was not large enough to display the trends expected based upon previous studies. In addition, men experiencing psychological distress, such as depression, may not have had the motivation to complete the questionnaire, thus reducing the number of men in this group.

An additional area for exploratory analysis involved the individual items included in the questionnaires from all of the assessment instruments utilized. An analysis was conducted to determine the strongest predictor of a man’s
likelihood to attack a woman sexually. The item that was the highest predictor originated from the Rape Myth Acceptance scale stating "A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex." Men who self-reported that they strongly agreed with this statement were more likely to attack a woman sexually than men who either agreed, disagreed or strongly disagreed with that statement. The item that was the second strongest predictor was from the Beck Depression scale and requires respondents to select one of the following statements: "1) I don't feel I am being punished; 2) I feel I may be punished; 3) I expect to be punished; 4) I feel I am being punished". Endorsement of statement 4 was the second highest predictor of a man's likelihood to sexually attack a woman.

Although this type of analysis is unique compared to previous literature, it does not seem inconsistent. Men who commit acts of sexual violence against women have been found to endorse rape myths (Burt, 1980; Burt & Albin, 1981; Check & Malamuth, 1985; Fonow, et al., 1992; Kanin, 1984; Koss, et al., 1985; Malamuth & Check, 1980; Malamuth, et al., 1980; Muehlenhard & Linton, 1987; Murphy, et al., 1986; Mynatt & Allgeler, 1990; Quackenbush, 1989; Reilly, et al., 1991; Reilly, et al., 1992; Senn & Radke, 1990; Tegler, 1981; Ward, 1988). Thus, endorsement of this item follows findings from previous research in terms of the nature of the statement (blaming the victim).
and its origination (the Rape Myth Acceptance scale).

The second strongest predictor of sexually aggressive behaviors is an item from the Beck Depression Inventory. Previous research has not directly addressed the relationship between depression and perpetration, although studies have examined the relationship between self-esteem and perpetration. As previously illustrated, self-esteem is closely related to depression. Thus, as indicated by previous research, if the self-esteem of perpetrators is high (Bohner, et al., 1993; Brownmiller, 1975), then it would be expected that depression would be low (Rosenberg, 1989). However, in this study the opposite was found. Perpetrators were more depressed than men who had not perpetrated any sexually violent acts. So, although contradictory to previous research, the finding that this item is the second strongest predictor is consistent with the findings of this study. With no previous research to compare the findings regarding depression and perpetration, it seems difficult to draw conclusions. These findings may be attributable and closely related to the other variables addressed in this study. This is indeed an area for further research and analysis.

Practical Implications

The current findings confirm previous reports of the frequent occurrence of rape and sexually aggressive behaviors during the first semester of the first-
year of college. This issue should be considered an epidemic when several studies and reports, including this study, find that approximately 25% of college women, in their first semester of their first-year of college, are being raped. Many college students engage in sexual activity, more so than when they were in high school. Too much of that activity is unwanted and non-consensual.

When a woman is the victim of either a sexual assault or unwanted sexual activity, research time and again has shown that these women will experience a number of symptoms of psychological distress, especially depression and anxiety. This study does not imply that other symptoms do not occur. The lack of support for the existence of such symptoms as low self-esteem found in this study indicates possible limitations in the study’s design. This will be addressed later in the chapter.

This study also provides further evidence for the previously found trends that men who commit acts of sexual violence are much more traditional in their views of women’s roles in society. These men also tend to endorse rape myths believing that the woman is to blame or that she “asked for it.” Not surprisingly, high levels of hostility toward women are also consistently related to the perpetration of sexually violent behavior by men. In addition, there are implications in this research, not previously a focal point in other studies, that
men who engage in sexually aggressive behaviors have higher levels of depression and anxiety than males who do not. No causal relationship can be determined, but it is still an interesting and significant observation. Further support for this implication was found in the analysis of the items within the questionnaire, distributed to all male respondents, indicating that the second highest predictor of a man's likelihood to sexually attack a woman was a question from the Beck Depression Inventory. This provides further evidence for the finding that males who perpetrate sexually violent acts may indeed have higher levels of depression than their male counterparts who have not perpetrated such acts. However, it must be emphasized that this is merely one item and perhaps such a question draws on other variables such as violence. This item indicates an area for further research and a need for further data to support such findings.

One final significant implication emerging from this study is the possibility of creating a questionnaire comprised of the items, from all of the scales utilized, that were found to be the strongest predictors of sexually violent behavior towards women. Although further testing and analysis would be required, including several pilot studies, such an assessment tool could be vital in creating an accurate means of assessing a man's likelihood to victimize a woman sexually. The characteristics of a man who commits sexually
aggressive or assaultive acts against a woman are not limited only to depression or rape myths acceptance. It is an integration of many characteristics and attitudes. A single assessment tool that addresses all of these, rather than one assessment tool for each variable, would be significant in the study and prevention of rape in our society among college students and perhaps across all ages and populations.

**Recommendations for Future Research**

The research yielded findings with regard to perpetration of sexually violent behaviors against women and indicated many areas for further study. The first involves the variables of depression and anxiety. These two variables have rarely, and indirectly, been addressed in research studies regarding the relationship between them and male perpetrators. Such variables seem quite relevant considering the research addressing related variables such as self-esteem. In addition, a significant amount of research exists that addresses female victims of sexual assault, but there is a lack of research pertaining to males as perpetrators.

As indicated by the analyses conducted in this study, pertinent to predictors of a man’s likelihood to engage in sexually violent behaviors against women, it seems significant to further that analysis by attempting to create an assessment instrument which measures this very construct. By integrating the
items emphasized as the strongest predictors of a likelihood to attack, and creating one tool, a more finite and concrete means of assessing sexual violence in males could be established. Although significant work would need to be completed, including further analysis of each item and several pilot studies utilizing the integrated items, a needed and useful tool may become a realistic means of measurement.

Also of great significance would be a study of similar design that uses matched sample in order to establish more causal relationships regarding sexual victimization and perpetration. Although considerable research exists pertaining to the effects of rape on a woman, no research has attempted to establish a baseline prior to the assault and to then analyze the changes in the woman that could be attributable to the assault. College females are the best population to use because of the frequency and likelihood of a woman being assaulted during her first semester at college. The most significant ramification would be to have the same women complete the questionnaire at the beginning of the semester and the again at the end in order to have as much control of the variables as possible.

It would also be beneficial to conduct a matched sample study to analyze males and the likelihood to perpetrate sexually aggressive and assultive acts against women. Improvements on this study could include
providing additional extra credit for completing the questionnaire at both administrations thus increasing the number of matched pairs within the sample. The questionnaire could also be administered during orientation thus enabling access to all first-year students and not just students enrolled in (and attending) the Skills Class.

In terms of specific variables, there is always more research that can be conducted regarding both victims and perpetrators. It is clear that this present study has laid the groundwork and highlighted many areas to be considered more carefully in future research studies in terms of college students and sexually violent behaviors. The generalizability of this study was limited, and, thus, further research utilizing other populations of college first-year students is recommended to improve the generalizability of these findings as well as non-college student populations. In addition, similar research studying heterosexual rape perpetrated by females against males, and homosexual rape should not be ignored.

**Limitations and Strengths**

One potential limitation of the present research is the potential bias resulting from the limited geographic area in which the university is situated. The university in question was a medium-sized institution in northern New Jersey just outside of the Metropolitan New York City limits. As a result, a
majority of the student body resides within the state of New Jersey and may not be representative of populations of college first-year students across the country.

In addition, the university is a small, Catholic university. With such a religious affiliation, the representativeness of first-year college students is questionable because of the large number of Catholic students compared to other religions. The university also has an undergraduate enrollment of approximately 5500 students. Thus, the religious affiliation, location, and size of the institution may limit the generalizability of the results to any other colleges and universities across the country.

Changes in the design of this research project are also a clear limitation. Originally designed to be a comparison between the beginning of the academic semester and the end of the first semester, this study would have enabled the establishment of a clear and differentiated baseline from which strong conclusions could be made after obtaining the data from the administration conducted at the end of the semester. Relationships between sexual experience and psychological characteristics would have been more evident and significant. When a very small portion of the sample completed the questionnaires at both administrations (57 females and 26 males), control over the variable of sexual experience was lost. The psychological state of the
victims and perpetrators, in terms of the variables in question, prior to the assault or attack, was unknown. Without the information pertaining to the respondents' states of mind prior to the assault or attack, these findings were sacrificed.

Another limitation seemed to be the length of the questionnaires and the number of variables incorporated into the study. Although the number of respondents was rather high, some of the questionnaires were returned with missing data and were eliminated from the study. This may have been a result of the length of the questionnaires. Fewer variables would have created a smaller and more concise piece of research and a smaller integrative assessment tool which may have not deterred subjects from participating.

The sample itself, as previously discussed, is not a representative sample because of the location of the university, the religious affiliation of the university and the size of the university. Also, the study was strictly one based upon self-reports. Although most studies of this nature have depended upon the same means of collecting data, there is always a certain risk of respondents reporting false information on self-reported measures. To add to this limitation, the study was not a random sample. Data collection was completed by using the first-year students in the Life Skills class offered by this university. Although required of all first-year students, some exceptions are made, and a
small number of first-year students do not take this class, and thus were not included in the study. Of those who were included, each was offered the opportunity to participate in the study with the incentive of extra credit toward the final grade in the class. It may be that only students who were performing poorly opted for the chance to earn extra credit. It may also be that students who are diligent about doing well used this opportunity to solidify a successful grade in the course. Regardless of the reason for completing the questionnaires, the design threatened the generalizability of the study to first-year college students at large, even though the size of the sample was rather large.

Although many relationships were found to exist among the variables, no causal relationships can be determined because of the design of the study. Yet, to conduct such a research study in an experimental fashion that would enable complete control and manipulation of the variables, including sexual experience, is not realistic or ethical. Even the analysis of the matched pairs of subjects does not enable the establishment of any causal relationships and thus all results need to be interpreted with caution.

An additional limitation of the study is the possible relevance of past sexual victimizations for the female subjects. It has been found that women who have a history of childhood sexual abuse exhibit more psychological
dissociation and symptoms of posttraumatic stress disorder then women without such a history (Dancu, Riggs, Hearst-Ikeda, & Shoyer, 1996; Epstein, Suanders, & Kilpatrick 1997; Petrak, et al., 1997). Contained within the questionnaire distributed to subjects was a question that reads “I was sexually molested as a child” (Katz, Gipson, Kearl, & Kristovich, 1989). It may have yielded some very interesting findings to have analyzed responses to this question. Such an analysis can be conducted in the future but may have had an impact on the relationships between variables established within this study. This study would further support previous research findings if the women who reported being sexually assaulted and molested as a child reported high levels of depression, anxiety and sexual aversion.

One final limitation is the structure of the Sexual Experience Survey. Although the elected focus of this research was to study sexual assaults and sexually aggressive behaviors perpetrated by men against women, it may have been of significant interest to not use a sexual experience questionnaire that was gender specific. This may have strongly compromised the results because if a subject had experienced an unwanted sexual act, but perhaps it was perpetrated by another woman, then this subject would respond “no” when indeed she had experienced a sexually aggressive act and may be exhibiting many of the same symptoms. It would have been more beneficial to have left
the opportunity for various responses available to subjects even if the focus of
the study was to be heterosexual encounters perpetrated by males.

One of the strengths of this study was the utilization of five groups
based upon sexual experience (respondents who had not experienced
consensual sex or any unwanted sexual activity, respondents who had
experienced only consensual sex, respondents who had perpetrated or were
victims of sexually aggressive behaviors, respondents who were the victims or
were perpetrators of sexual assault, and men who had perpetrated either
sexually aggressive or assaultive behaviors). This enabled comparisons between
sexually aggressive and sexually assaultive encounters to be conducted which
had been done to a minimal extent in previous research studies.

An additional asset of this study is the sample size of 120 men and 151
women at the second administration and 150 men and 215 women at the first
administration. With a total of 636 respondents, many analyses of the
different groups, based upon sexual experience, could be conducted without the
concern for the sample size becoming too small within each sexual experience
group. The only negative was the small number of matched respondents which
was not large enough to conduct any truly valid analyses.

Although it seemingly contributed to the limitations of the study, the
number of variables addressed in this research study was also an asset. Few, if
any, studies had examined all of these variables in one piece of research, thus enabling new analyses to be conducted. Of particular importance were the variables of depression and anxiety which had rarely been addressed in research relevant to perpetrators. This and a number of other analyses were exploratory, yet provided evidence for further areas of study in the future.

Conclusions

The purpose of this research was to investigate the relationships between sexually violent behaviors and a number of psychological characteristics and attitudes. The expectation that there was a high prevalence of sexual assaults on campus was supported by the findings in addition to the increase in sexual experience. As a result of an increase in sexual experience, the primary hypothesis stated that there would be an increase in self-esteem. This was not supported by the findings.

Hypothesis two regarding female victims of sexual assault and levels of psychological characteristics and attitudes was supported only for the variables of depression and anxiety. Findings regarding males who were sexually aggressive or assaultive and psychological characteristics and attitudes did support hypothesis three. Hypothesis four, that males who were sexually aggressive would fall between the sexually assaultive group and the consensual or non-experienced group, was also supported by the findings. Lastly, the same
was hypothesized for the female victims of sexually aggressive behaviors, but was not supported by the findings.

The primary goal of this research was to establish relationships between sexually violent behaviors, for perpetrators and victims, and the psychological characteristics and attitudes of depression, anxiety, rape myth acceptance, self-esteem, attitudes toward women, social desirability, sexual aversion (females only), and hostility toward women (males only). Many relationships were found to be significant, but clearly a number of areas for future research were indicated. This study further supports the elaborate amount of existing research illustrating the extent to which rape and sexual violence are problems not only within our society but even more so on our college and university campuses.
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Dear Potential Subject,

This study is being done as a research project that may be submitted for publication to a psychological journal. The purpose of this study is to examine different perceptions and experiences held by college students. We are interested in behaviors pertaining especially to sexuality and rape. The length of time anticipated for your participation in this study is approximately 30 minutes.

We are distributing this survey to students in the undergraduate Skills classes at Seton Hall University offered by the Department of Freshmen Studies. The choice of whether to participate or not is completely yours. Enclosed you will find the questionnaire which needs to be returned, which we ask you to return, regardless of whether or not you have chosen to participate. You are free to withdraw at any time without penalty. Please do not write your name on any of this material. This survey is strictly anonymous. Upon completion, please drop off the questionnaire according to the instructions given to you previously. In general, questionnaires are to be dropped off in the mailbox of the professor in whose class you received these materials or returned to the professor directly.

This packet consists of a compilation of surveys. The surveys utilized are as follows: The Self-Rating Scale (Rosenberg, 1965), Beck Depression Inventory (Beck, 1978), The Self-Analysis Form (Cattell, 1963), the Rape Myth Acceptance Scale (Burt, 1980; Newman & Colon, 1984), Attitudes Toward Women Scale (Spence & Helmreich, 1978), the Sexual Experiences Survey (Koss & Oros, 1982), the Social Desirability Scale (Festinger & Riesman, 1972), the Sexual Aversion Scale (Katz, Gipson, Karl, & Krakoff, 1989), and the Hostility Toward Women Scale (Lonsway & Fitzgerald, 1995). All of the questions request that you indicate how strongly you agree to how strongly you disagree with the question or scenario presented or simply responding yes or no concerning whether or not a certain experience has happened to you. Ratings will be done using the numbers one through four. Please note that only completed surveys will be usable for data analysis, so we invite you to answer all items.
There are no foreseeable risks or discomforts which would occur as a result of your participating in this study. However, if you experience any psychological discomfort from participating in this study, we suggest you discuss this with someone you trust or an appropriate professional such as a counselor at the University's Counseling Center. Although participating in this study may not be of significant benefit to you, you can gain the experience of participating in research, and studies such as this generate data and provide information that can be useful in understanding students' perceptions. There credit will be given for participation although alternative forms of extra credit will be made available.

All of your answers will remain confidential and anonymous. Please do not write your name anywhere on the questionnaire. The results will most likely be published, but only in a general, summary form.

Your careful participation in this study is greatly appreciated, but is completely voluntary. By completing the questionnaire, you are providing an informed consent to participate. Usually, an informed consent sheet would accompany this material requiring a signature. But, in order to maintain complete anonymity and confidentiality, this form has been omitted. Completion of the questionnaire is a substitute for the signature and form. Involvement in this study requires no further contact. If you desire information pertaining to the study and the results, please feel free to contact the researcher:

Ms. Christine Frydenborg (201)399-1238

This project has been reviewed and approved by the Seton Hall University Institutional Review Board for Human Subjects Research. The IRB believes that the research procedures adequately safeguard the subjects' privacy, welfare, civil liberties and rights. The chairperson of the IRB may be reached through the Office of Grants and Research Services. The telephone number of the Office is (201)761-9655.

A summary of the results will be available in May of 1998 from the author of this study.

Thank you for your cooperation.
APPENDIX B
FEMALES

DO NOT WRITE YOUR NAME ON THIS SURVEY

The answers you give are anonymous. In order to preserve your anonymity the following code has been developed. Circle the letter or number for each question.

<table>
<thead>
<tr>
<th>Last letter of your first name:</th>
<th>ABCDEFGHIJKLMNOPQRSTUVWXYZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>First letter of your mother's last name before marriage (her maiden name):</td>
<td>ABCDEFGHIJKLMNOPQRSTUVWXYZ</td>
</tr>
<tr>
<td>The month of your birth:</td>
<td>01 02 03 04 05 06 07 08 09 10 11 12</td>
</tr>
<tr>
<td>Second letter of your first name:</td>
<td>ABCDEFGHIJKLMNOPQRSTUVWXYZ</td>
</tr>
<tr>
<td>Date (in the month) of your birthday:</td>
<td>01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31</td>
</tr>
</tbody>
</table>

Please fill in the following information:

Age: ____  Sex: ____
The following statements are concerned with your opinions and experiences. There are no right or wrong answers. It is your opinion that is important, and we hope you will help us by replying to each statement with the position that best describes your attitudes and experiences. Please use the following key and mark only one number for each statement.

| Strongly Agree/Agree | 4 |
| Agree/Disagree | 3 |
| Disagree/Believe/Strongly disagree | 2 |
| Strongly disagree/Dissent | 1 |

1. I am able to do things as well as most other people.
2. The thought of sex makes me nervous.
3. A woman should be as free as a man to propose marriage.
4. I sometimes try to get even rather than forgive and forget.
5. I have avoided sexual relations recently because of my sexual fears.
6. A raped woman is a responsible victim, not an innocent one.
7. The thought of AIDS really scares me.
8. In most cases when a woman is raped, she was asking for it.
9. Economic and social freedom are worth far more to women than acceptance of the ideal of femininity which has been set up by men.
10. Many women have an unconscious wish to be raped, and may then unconsciously set up a situation in which they are likely to be attacked.
11. I have strong sexual urges that I am unable to satisfy.
12. At times I have really insisted on having things my own way.
13. The way things are now, I would never engage in sexual intercourse.
14. If a woman gets drunk at a party and then becomes with a man she's just met there, she should be considered "at fault" if other males at the party who want to have sex with her too, whether she wants to or not.
15. Rape only happens to women who ask for it in one way or another.
16. I often wonder what other people think of me.
17. I always try to practice what I preach.
18. I would like to feel less anxious about my sexual behavior.
19. There should be a strict merit system in job appointment and promotion without regard to gender.
20. I worry a lot about sex.
21. The husband should not be favored by law over the wife in the disposal of family property or income.
22. A person comes to you and claims she has been raped. How likely would you be to believe her statement if the person were an Indian woman?
23. If a girl engages in necking or petting and she lets things get out of hand, is it her own fault if her partner forces sex on her? 1 2 3 4
24. I worry a lot about catching a sexually transmitted disease. 1 2 3 4
25. A woman should not expect to go exactly the same places or to have quite the same freedom of action as a man. 1 2 3 4
26. Women who get raped while hitchhiking get what they deserve. 1 2 3 4
27. I believe there is no such thing as "rape lust." 1 2 3 4
28. In general, the father should have greater authority than the mother in the bringing up of the children. 1 2 3 4
29. I am afraid to engage in sexual intercourse with another person. 1 2 3 4
30. My sex life has always been a source of discomfort. 1 2 3 4
31. The typical rape victim is young and attractive. 1 2 3 4
32. Women should be concerned with their duty of childbearing and housekeeping, rather than with desires for professional careers. 1 2 3 4
33. I take a positive attitude toward myself. 1 2 3 4
34. I would like to feel more relaxed in sexual situations. 1 2 3 4
35. The intellectual leadership of a community should be largely in the hands of men. 1 2 3 4
36. When I was a child, I was punished because of my sexual behavior. 1 2 3 4
37. In the majority of rapes, the victim is promiscuous or has a bad reputation. 1 2 3 4
38. The AIDS scare has increased my fear about sex. 1 2 3 4
39. I try to avoid situations where I might get involved sexually. 1 2 3 4
40. I believe my attitudes about sex are abnormal. 1 2 3 4
41. All in all, I am inclined to feel that I am a failure. 1 2 3 4
42. I would go out of my way to avoid being alone with a member of the opposite sex. 1 2 3 4
43. A person comes to you and claims she has been raped. How likely would you be to believe her statement if the person were a white woman? 1 2 3 4
44. I have repeatedly avoided all or almost all genital sexual contact with a sexual partner. 1 2 3 4
45. I feel that I am a person of worth; at least on an equal plane with others. 1 2 3 4
46. The thought of becoming pregnant scares me. 1 2 3 4
47. A person comes to you and claims she has been raped. How likely would you be to believe her statement if the person were a black woman? 1 2 3 4
48. I'm not afraid of kissing or petting but intercourse really scares me. 1 2 3 4
49. A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex. 1 2 3 4
50. Sex is a chronic source of frustration for me. 1 2 3 4
51. I never wear a brassiere in public. 1 2 3 4
52. On the whole, I am satisfied with myself. 1 2 3 4
<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>53. Most charges of rape are unfounded.</td>
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<tr>
<td>54. Rape only happens to women who ask too many questions.</td>
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<tr>
<td>55. Rape of a woman by a man she knows can be defined as a &quot;woman who</td>
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<tr>
<td>changed her mind afterwards&quot;.</td>
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<td>56. I have never deliberately said something that hurt someone’s feelings.</td>
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<td>57. At times I think I am no good at all.</td>
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<td>58. I have an abnormal fear of sex.</td>
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<td>59. I feel sexually inadequate.</td>
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<td>60. I feel that I have a number of good qualities.</td>
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<td>61. The typical rape victim behaves in an irrational manner.</td>
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<td>62. I would like to get help for a sexual problem.</td>
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<td>63. I like to gossip at times.</td>
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<tr>
<td>64. A person comes to you and claims she has been raped. How likely</td>
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<tr>
<td>would you be to believe her statement if the person were a</td>
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<tr>
<td>&quot;Young boy?&quot;</td>
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<td>65. I feel it is not right to be prevented.</td>
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<td>66. I was sexually molested when I was a child.</td>
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<td>67. Women provoke rape by their appearance or behavior.</td>
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<td>68. There have been occasions when I have felt sexually unsafe.</td>
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<td>69. I would become more sexually active if I knew there was no such</td>
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<tr>
<td>thing as a sexually transmitted disease.</td>
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<td>70. I’m always willing to accept it when given a choice.</td>
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<td>71. I worry about being criticised because of my sexual behavior.</td>
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<td>72. A woman who is stuck-up and thinks she is too good to talk to guys on the street deserves to be taught a lesson.</td>
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<td>73. I have never been asked when people expressed ideas very different from my own.</td>
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<td>74. I am more afraid of sex now than I used to be.</td>
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<td>75. I wish I could have more respectful sex.</td>
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<tr>
<td>76. A person comes to you and claims she has been raped. How likely</td>
<td></td>
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<tr>
<td>would you be to believe her statement if the person were a</td>
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</tr>
<tr>
<td>&quot;Neighborhood woman&quot;?</td>
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<tr>
<td>77. I certainly feel unsafe at times.</td>
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<tr>
<td>78. I believe the risks associated with sex are greater than its rewards.</td>
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<tr>
<td>79. There have been occasions when I took advantage of someone.</td>
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</tbody>
</table>

Please answer yes or no to the following questions:
Have you ever:
40. Had sexual intercourse with a man when you both wanted to? Yes No
41. Had a man misinterpret the level of sexual intimacy you desired Yes No
82. Been in a situation where a man became so sexually aroused that you felt it was useless to stop him even though you did not want to have sexual intercourse? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

83. Had sexual intercourse with a new sexual partner if you really didn't want to because he threatened to use physical force (twisting your arm, holding you down, etc.)? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

84. Had sexual intercourse with a man when you didn't want to because you felt pressured by the situation? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

85. Found out that a man had obtained sexual intercourse with you by saying things he didn't really mean? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

86. Been in a situation where a man used some degree of physical force (twisting your arm, holding you down, etc.) to make you have sexual intercourse with him when you didn't want to but, for various reasons sexual intercourse did not occur? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

87. Had sexual intercourse with a man when you didn't want to because he threatened to use physical force (twisting your arm, holding you down, etc.) if you didn't cooperate? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

88. Had sexual intercourse with a man when you didn't want to because he used some degree of physical force (twisting your arm, holding you down, etc.)? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

89. Been in a situation where a man obtained sexual intercourse with you such as anal or oral intercourse when you didn't want to because of threats or physical force (twisting your arm, holding you down, etc.)? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

90. Have you ever been raped? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Please answer the following questions accordingly:

93. I find that my interests, in people and activities, tend to change fairly rapidly. 

<table>
<thead>
<tr>
<th>True</th>
<th>Inbetween</th>
<th>False</th>
</tr>
</thead>
</table>

94. If people think poorly of me I can still go on quite normally in my own mind. 

<table>
<thead>
<tr>
<th>True</th>
<th>Inbetween</th>
<th>False</th>
</tr>
</thead>
</table>

95. I like to wait till I am sure that what I am saying is correct, before I put forward an argument. 

<table>
<thead>
<tr>
<th>Yes</th>
<th>Inbetween</th>
<th>False</th>
</tr>
</thead>
</table>

96. I am inclined to let my actions get away by feelings of jealousy. 

<table>
<thead>
<tr>
<th>Some-times</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
</table>
97. If I had to live over again I would:  
   (A) plan very differently, (B) want it the same.  
A. Inbetween  
B. Yes  

98. I admire my parents in all important matters.  
A. True  
B. Inbetween  
C. False  

99. I find it hard to "take note" for an answer, even when I know what I ask is impossible.  
A. True  
B. Inbetween  
C. False  

100. I doubt the honesty of people who are more friendly than I would naturally expect them to be.  
A. Always  
B. Often  
C. Seldom  

101. In demanding and enforcing obedience my parents (or guardians) were:  
   (A) always very reasonable,  
   (B) often unreasonable.  
A. Always  
B. Often  
C. Seldom  

102. I need my friends more than they seem to need me.  
A. True  
B. Inbetween  
C. False  

103. I feel sure that I could "pull myself together" to deal with an emergency.  
A. Inbetween  
B. Always  
C. Frequently  

104. As a child I was afraid of the dark.  
A. Yes  
B. Inbetween  
C. No  

105. People sometimes tell me that I show my emotions in voice and manner too obviously.  
A. True  
B. Inbetween  
C. False  

106. If people take advantage of my kindness I (A) soon forget and forgive, (B) resent it and hold it against them.  
A. Always  
B. Often  
C. Seldom  

107. I find myself upset rather than helped by discussion of potential misfortune that many people make.  
A. Inbetween  
B. Often  
C. Rarely  

108. Often I get angry with people too quickly.  
A. True  
B. Inbetween  
C. False  

109. I feel restless as if I want something but do not know what.  
A. True  
B. Inbetween  
C. False  

110. Sometimes doubt whether people I am talking to are really interested in what I am saying.  
A. True  
B. Inbetween  
C. False  

111. I have always been free from any vague feelings of ill-health such as obscure pains, digestive upset, nervousness, fainting, action etc.  
A. True  
B. Inbetween  
C. False  

112. In discussion with some people, I get so annoyed that I can hardly trust myself to speak.  
A. True  
B. Inbetween  
C. False  

113. Through getting tense I use up more energy than most people in getting things done.  
A. True  
B. Inbetween  
C. False  

114. I make a point of not being absent-minded or forgetful of details.  
A. True  
B. Inbetween  
C. False  

115. However difficult and unpleasant the obstacles, I always stick to my original intentions.  
A. True  
B. Inbetween  
C. False  

116. I tend to get over-excited and "nervous" in upsetting situations.  
A. True  
B. Inbetween  
C. False  

117. I occasionally have vivid dreams that disturb my sleep.  
A. True  
B. Inbetween  
C. False  

118. I always have enough energy even when faced with difficulties.  
A. True  
B. Inbetween  
C. False  

119. I sometimes feel compelled to count things for no particular purpose.  
A. True  
B. Inbetween  
C. False  

120. Most people are a little quicker mentally, though they do not like to admit it.  
A. True  
B. Inbetween  
C. False
121. I feel generally sad and just do not want to see people.  
   (A) occasionally, (B) rather often.  
122. I am brought almost to tears by having things go wrong.  
123. In the midst of social groups I am nevertheless sometimes overcome by feelings of loneliness and weariness.  
124. I walk in the night and, through worry, have some difficulty in sleeping again.  
125. My spirits generally stay high no matter how many troubles I meet.  
126. I sometimes feel guilty or responsible over quite small matters.  
127. My nerves get on edge so that certain stomach aches, a badly sore throat, are unbearable and give me the jitters.  
128. If something badly upsets me I generally calm down again fairly quickly.  
129. I tend to tremble or perspire when I think of a difficult task ahead.  
130. I usually fall asleep quickly, in a few minutes, when I get to bed.  
131. I sometimes get in a state of tension or turmoil as I think over my recent concerns and interests.  

Please answer the following questions accordingly:  

132. 0 I do not feel sad.  
1. I feel sad.  
2. I am sad all the time and I can’t snap out of it.  
3. I am so sad or unhappy that I can’t stand it.  

133. 0 I do not feel I am any worse than anybody else.  
1. I am critical of myself for my weaknesses or mistakes.  
2. I blame myself all the time for my mistakes.  
3. I blame myself for everything that happens.  

134. 0 I am not particularly discouraged about the future.  
1. I feel discouraged about the future.  
2. I feel if I have nothing to look forward to.  
3. I feel that the future is hopeless and that things can not improve.  

135. 0 I don’t have any thought of killing myself.  
1. I have thoughts of killing myself, but I would not carry them out.  
2. I would like to kill myself.  
3. I would kill myself if I had the chance.
136. 0 I do not feel like a failure.  
1 I feel I have failed more than the average person.  
2 As I look back on my life, all I can see is a lot of failures.  
3 I feel I am a complete failure as a person.  

138. 0 I get as much satisfaction out of things as I used to.  
1 I don't enjoy things the way I used to.  
2 I don't get real satisfactions out of anything anymore.  
3 I am dissatisfied or bored with everything  

139. 0 I don't feel depressed or irritated now than I did before.  
1 I am depressed or irritated more easily than I used to.  
2 I feel irritated all the time now.  
3 I don't feel irritated at all by things that used to irritate me.  

140. 0 I don't feel particularly guilty  
1 I feel guilty a good part of the time.  
2 I feel quite guilty most of the time.  
3 I feel guilty all the time.  

141. 0 I have not lost interest in other people.  
1 I am less interested in other people than I used to be.  
2 I have lost most of my interest in other people.  
3 I have lost all of my interest in other people.  

142. 0 I don't feel I am being punished.  
1 I feel I may be punished.  
2 I expect to be punished.  
3 I feel I am being punished.  

143. 0 I make decisions about as well as I ever could.  
1 I put off making decisions more than I used to.  
2 I have greater difficulty in making decisions than before.  
3 I can't make decisions at all anymore.  

144. 0 I don't feel disappointed in myself.  
1 I feel disappointed in myself.  
2 I am disgusted in myself.  
3 I hate myself.  

145. 0 I don't feel I look any worse than I used to.  
1 I am worried that I am looking old or unattractive.  
2 I feel that there are permanent changes in my appearance that make me look unattractive.  
3 I believe that I look ugly.
146. 0 My appetite is no worse than usual.
     1 My appetite is not as good as it used to be.
     2 My appetite is much worse now.
     3 I have no appetite at all anymore.

147. 0 I can work about as well as before.
     1 It takes an extra effort to get started at doing something.
     2 I have to push myself very hard to do anything.
     3 I can't do any work at all.

148. 0 I haven't lost weight lately.
     1 I have lost more than 5 pounds.
     2 I have lost more than 10 pounds.
     3 I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less. Yes____ No____

149. 0 I can sleep as well as usual.
     1 I don't sleep as well as I used to.
     2 I wake up 1-3 hours earlier than usual and it is hard to get back to sleep.
     3 I wake up several hours earlier than I used to and can not get back to sleep.

150. 0 I am no more worried about my health than usual.
     1 I am worried about physical problems such as aches and pains; or upper stomach or lumbago.
     2 I am very worried about physical problems and it's hard to think about much else.
     3 I am so worried about my physical problems that I can not think about anything else.

151. 0 I have not noticed any recent change in my interest in sex.
     1 I am less interested in sex than I used to be.
     2 I am much less interested in sex now.
     3 I have lost interest in sex completely.

152. 0 I don't get more tired than usual.
     1 I get tired more easily than I used to.
     2 I get tired from doing almost anything.
     3 I am too tired to do anything.
MALES

DO NOT WRITE YOUR NAME ON THIS SURVEY.

The answers you give are anonymous. In order to preserve your anonymity the following code has been developed. Circle the letter or number for each question.

| Last letter of your first name: | ABCDEFGHIJKLMNOPQRSTUVWXYZ |
| First letter of your mother's last name before marriage (her maiden name): | ABCDEFGHIJKLMNOPQRSTUVWXYZ |
| The month of your birth | 01 02 03 04 05 06 07 08 09 10 11 12 |
| Second letter of your first name | ABCDEFGHIJKLMNOPQRSTUVWXYZ |
| Date (in the month) of your birthday | 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 |

Please fill in the following information:

Age: _____  Sec: _____
The following statements are concerned with your opinions and experiences. There are no right or wrong answers. It is your opinion that is important, and we hope you will help us by replying to each statement with the position that best describes your attitudes and experiences. Please use the following key and mark only one number for each statement.

Strongly Agree - 4
Agree - 3
Disagree - 2
Strongly Disagree - 1

1. Rape of a woman by a man she knows can be defined as a “woman who changed her mind afterwards”.

2. I believe that most women tell the truth.

3. The typical rape victim believes in an exciting manner.

4. I am able to do things sometimes that other people.

5. At times I have relied on having things my own way.

6. A person comes to me and claims he has been raped. How likely would you be to believe his statement if the person were a
   Young boy?

7. All in all, I don't think I have done too bad at being a failure.

8. A women should get permission from a man to propose marriage.

9. I think that most women would lie to get ahead.

10. Rape only happens to women how take too many chances.

11. There have been occasions when I took advantage of someone.

12. Sometimes women believe me by just being around them.

13. There should be a better system in job appointment and promotion where sex is not a factor.

14. I like to meddle at times.

15. I usually find myself hanging out with women.

16. In the majority of cases, the victim is promiscuous or has a bad reputation.

17. The husband should always be favored by law over the wife in the disposal of family property or income.

18. When it really comes down to it, a lot of women are deceitful.

19. The typical rape victim is young and attractive.

20. At times I think I am no good at all.

21. I'm always willing to admit it when I make a mistake.

22. A person comes to you and claims she has been raped. How likely would you be to believe her statement if the person were an Indian woman?
23. Generally it is safer not to trust women.
   1 2 3 4

24. Economic and social freedom are worth far more to women than
certainty of the ideal of femininity which has been set up by men.
   1 2 3 4

25. I take a positive attitude toward myself.
   1 2 3 4

26. A person comes to you and claims she has been raped. How likely
   would you be to believe her statement if the person were a
   Neglected woman?
   1 2 3 4

27. I was never raped by anyone.
   1 2 3 4

28. A woman who goes to the home or apartment of a man she does
   not know for the first time willing to have sex
   1 2 3 4

29. A woman would not expect to go exactly the same places or
   have exactly the same freedom of action as a man.
   1 2 3 4

30. I certainly don't value as much.
   1 2 3 4

31. I feel safer when walking or jogging and she lets things get out of hand,
   it is her own fault if her partner choose sex or her.
   1 2 3 4

32. I am sure I get a raw deal from the woman in my life.
   1 2 3 4

33. My life has an unconscious wish to be raped, and sometimes
   unconsciously I set up a situation in which they are likely to be exploited
   1 2 3 4

34. Each woman is a person with herself.
   1 2 3 4

35. You should be concerned with their desire of children and
   future family, rather than with concern for themselves.
   1 2 3 4

36. Women are responsible victims, not an innocent kind.
   1 2 3 4

37. I like all of you are a number of good qualities.
   1 2 3 4

38. A woman who is made-up and thinks she is too good to sell for sex on
   the street deserves to be taught a lesson.
   1 2 3 4

39. I have never been asked when people expressed ideas very different
   from my own.
   1 2 3 4

40. A person comes to you and claims she has been raped. How likely
   would you be to believe her statement if the person were a black
   woman?
   1 2 3 4

41. I feel I do not have enough to be proud of.
   1 2 3 4

42. Rape only happens to women who ask for it in an easy way or manner.
   1 2 3 4

43. Women are not the ones who are responsible for the way they appear.
   1 2 3 4

44. I feel that I am a person of whom you have much in common with others
   1 2 3 4

45. There have been occasions when I felt like cheating a rape.
   1 2 3 4

46. Women are responsible for most of my troubles.
   1 2 3 4

47. Most changes of rape are unbounded.
   1 2 3 4

48. I wish I could have more respect for myself.
   1 2 3 4

49. Women provide rape by their appearance or behavior.
   1 2 3 4

50. I always try to practice what I preach.
   1 2 3 4

51. A person comes to you and claims she has been raped. How likely
   would you be to believe her statement if the person were a white
   woman?
   1 2 3 4
52. I never resent being asked a favor. 1 2 3 4
53. In general, the father should have greater authority than the mother in the bringing up of the children. 1 2 3 4
54. I have never deliberately said something that hurt someone's feelings. 1 2 3 4
55. If a woman gets drunk at a party and has intercourse with a man she's just met there, she should be considered "fair game" or other males at the party will want to have sex with her too, whether she wants to or not. 1 2 3 4
56. I feel that many times women flirt with men just to get them or hurt them. 1 2 3 4
57. In some cases when a woman is upset, she's not thinking clearly. 1 2 3 4
58. If someone try to get even rather than forgive and forget. 1 2 3 4
59. The intellectual leadership of a community should be largely in the hands of men. 1 2 3 4

Please answer yes or no to the following questions:

Have you ever:

60. Had sexual intercourse with a woman when you didn't want to? Yes No
61. Had a sexual encounter with someone who is not your friend? Yes No
62. Been in a situation where you became so sexually excited that you could not stop yourself even though the woman didn't want to? Yes No
63. Had sexual intercourse with a woman even though she didn't really want to because you threatened to end your relationship? Yes No
64. Had sexual intercourse with a woman when she didn't really want to because she felt pressured by your continual advances? Yes No
65. Obtained sexual intercourse by saying things you didn't really mean? Yes No
66. Been in a situation where you used some degree of physical force (kissing your arm, holding you down, etc.) to try to make a woman agree to having or doing something she didn't want to? Yes No
67. Been in a situation where you tried to get sexual intercourse with a woman when she didn't want to by threatening to use physical force (kissing your arm, holding you down, etc.) if she didn't cooperate, but for various reasons sexual intercourse did not occur? Yes No
68. Been in a situation where you used some degree of physical force (kissing your arm, holding you down, etc.) to try to get a woman to have sexual intercourse with you when she didn't want to, but for various reasons sexual intercourse did not occur? Yes No
69. Had sexual intercourse with a woman when she didn't want to because you threatened to use physical force (kissing your arm, holding you down, etc.) if she didn't cooperate? Yes No
70. Had sexual intercourse with a woman when she didn't want to because you used some degree of physical force (twisting your arm, holding you down, etc.)?  

71. Seen in a situation where you obtained sexual acts with a woman such as anal or oral intercourse when she didn't want to by using threats or physical force (twisting your arm, holding you down, etc.)?  

Please answer the following questions accordingly:

72. I find that my lectures in people and circumstances tend to change fairly rapidly.

73. If people think poorly of me I can still go on quite sensibly in my own mind.

74. I like to wait till I am sure that what I am saying is correct before I put forward an argument.

75. I am inclined to let my actions get away by feelings of jealousy.

76. If I had a life to live over again I would:
   (A) start very differently, (B) treat it the same.

77. I discuss my opinions in all important matters.

78. I find it hard to take a 'no' for an answer, even when I know what I ask is impossible.

79. I display to strangers all the friendliness that I would naturally display to be.

80. In demanding and enforcing obedience my parents (or guardians) were:
   (A) always very reasonable, (B) often unreasonable.

81. I feel my friends more than they seem to need me.

82. I believe that I could 'pull myself together' to deal with an emergency.

83. As a child I was afraid of the dark.

84. People sometimes tell me that I show my excitement in ways and manner too obviously.

85. If people take advantage of my kindnesses I:
   (A) never forget and forgive, (B) resent it and hold it against them.

86. I find myself upset rather than helped by the kind of personal criticism that many people make.

87. Often I get angry with people too quickly.

88. I feel restless as if I want something but don't know what.

89. I sometimes doubt whether people I am talking to are really interested in what I am saying.
98. I have always been inclined to have vague feelings of ill-health, such as vague aches, digestive upsets, awareness of heart action.

99. I am sometimes tired and do not want to do things.

100. It is often difficult for me to lose sleep.

101. In general, I do not enjoy life very much.

102. I am easily distracted.

103. I am easily bored.

104. My spirits generally stay high no matter how many troubles I have.

105. I am sometimes afraid that I may be doing something wrong.

106. My health is often poor because I am nervous.

107. I am often tired.

108. I am often worried about things that do not really concern me.

109. I am often worried about things that I cannot control.

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199. I am often worried about things that I cannot control.

200. I am often worried about things that I cannot control.
Please answer the following questions accordingly:

111. 0. I do not feel sad.
   1. I feel sad.
   2. I am sad all the time and I can't snap out of it.
   3. I am so sad or unhappy that I can't stand it.

112. 0. I do not feel I am any worse than anybody else.
   1. I am ashamed of myself for my weaknesses or mistakes.
   2. I blame myself all the time for my faults.
   3. I blame myself for everything bad that happens.

113. 0. I am not particularly discouraged about the future.
   1. I feel discouraged about the future.
   2. I feel I have nothing to look forward to.
   3. I feel that the future is hopeless and that things can not improve.

114. 0. I don't have any thought of killing myself.
   1. I have thoughts of killing myself, but I would not carry them out.
   2. I would like to kill myself.
   3. I would kill myself if I had the chance.

115. 0. I do not feel like a failure.
   1. I feel I have failed more than the average person.
   2. As I look back on my life, all I can see is a lot of failure.
   3. I feel I am a complete failure as a person.

116. 0. I don't cry any more than usual.
   1. I cry more now than I used to.
   2. I cry all the time now.
   3. I used to be able to cry, but now I can't cry even though I want to.

117. 0. I get as much satisfaction out of things as I used to.
   1. I don't enjoy things the way I used to.
   2. I don't get real satisfactions out of anything anymore.
   3. I am dissatisfied or bored with everything.

118. 0. I am no more irritated now than I ever am.
   1. I get annoyed or irritated more easily than I used to.
   2. I feel irritated all the time now.
   3. I don't get irritated at all by things that used to irritate me.

119. 0. I don't feel particularly guilty.
   1. I feel guilty a good part of the time.
   2. I feel quite guilty most of the time.
   3. I feel guilty all the time.

120. 0. I have not lost interest in other people.
   1. I am less interested in other people than I used to.
   2. I have lost most of my interest in other people.
   3. I have lost all of my interest in other people.
121. 0 I don't feel I am being punished. 
1 I feel I may be punished. 
2 I expect to be punished. 
3 I feel I am being punished.

122. 0 I make decisions about as well as I ever could. 
1 I put off making decisions more than I used to. 
2 I have greater difficulty in making decisions than before. 
3 I can't make decisions at all anymore.

123. 0 I don't feel disappointed in myself. 
1 I am disappointed in myself. 
2 I am ashamed in myself. 
3 I hate myself.

124. 0 I don't feel I look any worse than I used to. 
1 I am worried that I am looking old or unattractive. 
2 I feel that there are permanent changes in my appearance that make me look unattractive. 
3 I believe that I look ugly.

125. 0 My appetite is no worse than usual. 
1 My appetite is not as good as it used to be. 
2 My appetite is much worse now. 
3 I have no appetite at all anymore.

126. 0 I can work about as well as before. 
1 It takes an extra effort to get started at doing something. 
2 I have to push myself very hard to do anything. 
3 I can't do any work at all.

127. 0 I haven't lost much weight, if any, lately. 
1 I have lost more than 5 pounds. 
2 I have lost more than 10 pounds. 
3 I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less. Yes ___ No ___

128. 0 I can sleep as well as usual. 
1 I don't sleep as well as I used to. 
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep. 
3 I wake up several hours earlier than I used to and can not get back to sleep.
129. 0 I am no more worried about my health than usual.
     1 I am worried about physical problems such as aches and pains, or upset stomach, or constipation.
     2 I am very worried about physical problems and it is hard to think about much else.
     3 I am so worried about my physical problems that I am not think about anything else.

130. 0 I have not noticed any recent change in my interest in sex.
     1 I am less interested in sex than I used to be.
     2 I am much less interested in sex now.
     3 I have lost interest in sex completely.

131. 0 I don't get more tired than usual.
     1 I get tired more easily than I used to.
     2 I get tired from doing almost anything.
     3 I get too tired to do anything.