

QUANTIFYING RISK FOR  
SEXUAL ASSAULT  
IN PRISONS

by

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A THESIS

Submitted in partial fulfillment of the requirements  
for the degree of Master of Science  
in the Department of Criminal Justice  
in the Graduate School of  
The University of Alabama

TUSCALOOSA, ALABAMA

2010

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## ABSTRACT

Traditional studies of sexual assault in the prison system have focused upon identifying those inmates most likely to perpetrate the offence. However, little research has been conducted upon better identification of those inmates most at risk for sexual assault victimization. The purpose of this study was to analyze an existing dataset in order to evaluate if risk of sexual assault in prison could be quantified through qualitative data. Using secondary qualitative data of 409 males in 30 institutions in 10 states, theoretical risk-assessment indices were created based upon a review of the relevant literature. Reliability was then assessed of the constructed indices, and was followed by Exploratory Factor Analyses (EFA) to further construct reliable and valid risk-assessment indices. Results indicated that the identified variables could be used for quantification of risk assessment. By extracting quantifiable risk assessment from qualitative data, further insight was gleaned as how to more effectively construct risk assessment instruments to more accurately measure sexual assault in prisons.

## DEDICATION

This thesis is dedicated to my friends and family that have supported me throughout the writing of this manuscript. In particular, I would like to dedicate this thesis to my parents who taught me, “it is not what you accomplished today, but what you are going to do tomorrow that matters.”

## LIST OF ABBREVIATIONS AND SYMBOLS

$\alpha$	Cronbach's index of internal consistency
$M$	Mean
$SD$	Standard deviation
$p$	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
$r$	Pearson product-moment correlation
=	Equal to

## ACKNOWLEDGEMENTS

First and foremost, I am forever indebted to Dr. David R. Forde for his tireless work as my Thesis Committee Chair, graduate advisor, and professor for the past two years. I can never repay the wealth of knowledge and insight I have gleaned from him over the course of my graduate career, other than to attempt to have as positive an impact on someone else as much as he has had on me. My thanks and gratitude will also never be able to repay my two Thesis Committee members, Dr. Rebecca J. Howell and Dr. Martin Sellbom. Dr. Howell has been extremely influential to me over the past two years, and has held me to a standard of excellence that I will henceforth strive to achieve in all of my work. Dr. Sellbom also provided an invaluable wealth of knowledge concerning statistics and scale construction, and helped shape and mold this thesis into a product in which I can take pride.

I would also like to thank my friends and family who supported me throughout my undertaking of this thesis. Most notably, I would like to thank the University of Alabama Forensics Council for not only the use of their computers and printer, but also for their energy and support in encouraging me to finish. My roommate and best friend, Jessy Ohl, also deserves my gratitude, as his friendship and hard work inspired me to work as hard as he had. Finally, I would like to thank the University of Alabama Criminal Justice Department and The University of Alabama.

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## CHAPTER 1

### INTRODUCTION

Research concerning male sexual assault in prison is sparse. This dearth in literature contributes to an already problematic area of effectively determining prison sexual assault's scope (English & Heil, 2005). While the official prevalence of male sexual assault in prison is predominately unknown, this issue can be traced as far back as the 19<sup>th</sup> century, and began as a significant area of research in the 1930s (Dumond, 2003; O'Donnell, 2004; Hensley, Koscheski, & Tewksbury, 2005). However, for the past 80 years of male prison sexual assault research, little focus has been placed upon understanding the characteristics of male prisoners that serve as risk factors for sexual assault victimization (Hensley, Tewksbury, & Castle, 2003; Hensley, Koscheski, & Tewksbury, 2005). Without a proper understanding of this at-risk population, little can be accomplished to alleviate an already dire situation.

The problems associated with male prison sexual assault are myriad and carry long-lasting implications. Inmates who have been sexually victimized suffer from both physical and psychological trauma (Tewksbury, 1989). Physically, the inmate is faced with the pain sustained from assault by one or multiple men, and the possibility of contracting a sexually transmitted disease (Knowles, 1999). Psychologically, the inmate must deal with the threat of re-victimization, an increase of fear, loss of status, and the fact that they are unable to escape from forced incarceration with their assailants (Dumond, 1992; Knowles, 1999). Furthermore, the psychological problems associated with the inability to escape the pain and humiliation of sexual

assault in prison have also been linked to suicide (Dumond, 1992; Struckman-Johnson, Struckman-Johnson, Rucker, Bumby, and Donaldson, 1996; Knowles, 1999). While these problems serve as an immediate problem for the individual, these issues may also impede their future efforts towards rehabilitation and community reintegration (Tewksbury, 1989). A result for society at large is the problem of released inmate victims of sexual assault that serve as an even greater risk for sexual assault perpetration (Dumond, 1992). As Hensley, Koscheski, and Tewksbury (2005) explained, “sexual violence may...be the most serious form of violence to which inmates may be exposed, and the form of violence that may carry with it the most serious and long-lasting implications” (p. 677).

While the problems of sexual assault continue to plague inmates, the major issue in assessment is the lack of research and data. Without accurate data, scholars are left to speculate on the prevalence of sexual assault within the prison system. This speculation can only be confirmed by reliably measuring sexual assault victimization prevalence and understanding its causal factors (Wolff, Shi, Blitz, & Siegel, 2007). Wolff and colleagues (2007) offered that current research on prison sexual assault suffers due to a lack of a state mandate that “monitors victimization rates inside prisons using scientific methods that enhance reliable and accurate reporting” (p. 552).

However, there are significant obstacles in obtaining information on male sexual assault in prison. First, many inmates fail to report rape and sexual assault (Eigenberg, 2000). Among male inmates, prison rape is considered to be taboo and stigmatizing to victims (Sisco & Becker, 2007). Face-to-face interviews may not help in drawing out this information, either, as sexual assault is considered a sensitive topic, and inmates may underreport incidents due to embarrassment or fear of re-victimization (Hensley, Tewksbury, & Castle, 2003). Struckman-

Johnson, Struckman-Johnson, Rucker, Bumby, and Donaldson (1996) offered that it is this fear of disclosure that serves as the primary barrier in identification, treatment, and protection of prison sexual assault victims. Second, as stated earlier, there is currently no state mandate that monitors state sexual assault victimization rates. The result of a lack of prevalence data is a general idea of inmate-on-inmate assaults, without specificity as to whether sexual aggression was at play (Dumond, 1992).

Due to limitations in obtaining quantitative data regarding sexual assault in prison, it would appear that conclusions drawn from qualitative data may, for the moment, be the best answer. Fleisher and Kreinert (2006a) explained, however, that “inmate interviews cannot be used to do a statistical analysis of rape prevalence” (p. 59). The question then becomes, how exactly is sexual assault in prisons measured? Knowles (1999) explored a different route of analysis, and focused upon identifying sexual assault perpetrators through a content analysis of prior prison sexual assault literature. Gaes and Goldberg (2004) also admitted to the extreme limitations in prison sexual assault data and performed a meta-analysis of prison sexual assault studies, including assessment of data collected through questionnaires, interviews, informants, and administrative records. Overall, the literature suggests that it is extremely difficult to obtain inmate interviews concerning sexual assault in prisons, as already discussed. O’Donnell (2004) also explained that it is extremely difficult to obtain “reliable data on the actual (as opposed to the perceived) risk of sexual violation faced by prisoners (p. 245). However, through the use of secondary data, further understanding may be gleaned as to the characteristics contributing to male prison sexual assault victimization, and to furthering male prison sexual assault risk assessment.

Whereas previous studies have focused upon identifying prison sexual assault perpetrators, this study focused upon better identification of male inmates at-risk for sexual assault victimization. In particular, this research made use of Fleisher and Kreinert's (2006) *Ethno-Methodological Study of the Subculture of Prison Inmate Sexuality in the United States, 2004-2005*, as it is currently the only current and publicly available dataset pertaining to sexuality in prison systems. The purpose of this study was to use survey data collected from a secondary data-set to construct a risk assessment tool for sexual assault in prison. The master's thesis proposed an evaluation of the reliability and validity of this tool for assessing risk of sexual assault. Policy recommendations from this knowledge focused on construction of better risk-assessment instruments and factors that may prevent prison sexual assault.

In working towards better protection for inmates from sexual assault, special attention was placed upon protection of those individuals included in this study. The potential risks of this study were minimal, due to the use of a secondary data-set. No subjects were identified either by name or through demographic data and data from the survey were only reported in aggregate. The potential benefits of this study included an improved societal understanding of the risk of sexual assault in prison. Many individuals are unaware of the impact that sexual assault has upon the operations of correctional institutions (Dumond, 1992). Furthermore, this research aided in better classification of inmates. Dumond (1992) explained that "identifying 'at-risk' inmates, housing inmates with compatible typologies and swift classification/placement for victims of [sexual] assaults are critical ingredients" for management of potential victimization (p. 149). The results of this study may also serve as beneficial to the Department of Justice's goals of safeguarding inmates from sexual violence. Wolf, Shi, Blitz, and Siegel (2007) explained that action is required to move toward zero tolerance of sexual victimization in prisons as suggested

by the Prison Rape Elimination Act of 2003. They offered that identification of those inmates at elevated risk for sexual victimization and development of placement strategies must be a primary goal. This study found that a reliable risk-assessment tool can be constructed and used to better identify at-risk inmates of sexual assault.



## CHAPTER 2

### LITERATURE REVIEW

While a substantial contributor to the uncertainty of prisoner sexual assault statistics has been a lack of specific research, the following literature review identifies several studies that have successfully identified significant risk factors for sexual victimization within prisons. The review of this literature is divided into eight sections, based upon the general themes to which the identified risk factors therein pertain. Section one explores the theoretical model this study embraces. Section two discusses sexual victimization and how prior sexual victimization and knowledge of sexual victimization within the institution contribute to further victimization. Section three discusses the appearance of vulnerability, specifically focusing on fear of sexual assault. Section four discusses staff and institution risk and protective factors for sexual assault in prison. Section five focuses upon demographic characteristics and the significance of age and race. Section six discusses incarceration factors with both the amount of time in the institution and the inmate's conviction for incarceration playing important roles. Section seven discusses the impact that mental health plays in predicting victimization, while section eight focuses upon the impact of the inmate's sexual orientation. In each section, the variables to be included in the scale construction and analyses are indicated with justification for their inclusion. These relationships are further illustrated in Appendices I & II, and the coding of the identified variables may be found in either the same appendices or within Chapter 3.

### *Theoretical Perspective*

While the problems associated with prison sexual assault may be easily identified, the causal indicators are somewhat less so. This study made use of a combination of the deprivation and importation models of prison behavioral patterns. Bell, Coven, Cronan, Garza, Guggemos, & Storto (1999) explained that with the deprivation model, the nature of the prison environment molds aggressive inmate behavior. Under this model inmates must adapt and become coercive perpetrators in order to survive in such a hostile environment, thus explaining sexual aggression as an act of dominance. However, the authors also explained that with the importation model, inmates bring certain behavioral and sexual patterns into the correctional institution. Thus, these aggressive acts then become part of the prison code of behavior that then influences other inmates and their interactions. In working toward identifying the factors that influence sexual assault victimization, this study agrees with Bell and associates (1999) in their explanation that these two models of deprivation and importation work together to build a “prison hierarchy in which aggressive sexual behavior is understood as ‘powerful’” (p. 201). In keeping with this paradigm, factors preceding incarceration must be taken into account alongside institutional factors.

### *Sexual Victimization*

Though the statement may appear to be an example of circular logic, sexual victimization leads to further sexual victimization. Dumond (2000), in an attempt to identify the role that mental health staff members in prison play in helping address the needs of sexual assault victims, also identified several characteristics of those inmates at-risk for sexual victimization. One such characteristic was the presence of prior sexual assault in the inmate’s history (Dumond, 2000). The study’s brief survey of this characteristic did not specify the impact of prior sexual assault

on the street versus prior sexual assault within the institution upon further victimization, however. Likewise, Man & Cronan (2001) identified prior sexual victimization as a significant risk factor. The authors explained that an inmate being sexually victimized within the institution contributes towards that inmate being perceived as easily conquerable and designates them as a target (Man & Cronan, 2001, p. 153).

Furthermore, Wolff, Shi, Blitz, & Siegel (2007), focused upon identifying the attributes of the individual inmate (or facility) that increase risk for sexual assault victimization within prisons. During Summer 2005, Wolff and associates (2007) surveyed 7,785 male and female inmates from a single state correctional system. These inmates were residing in twelve male adult prisons (n = 6,964 males), one male sex offender treatment prison (n = 257 males), and one female adult prison (n = 564 females). The construct *sexual victimization* was measured by asking “have you been sexually assaulted by (an inmate or staff member) within the past 6 months?” Ten additional questions were designed to assess specific victimization, defined as *nonconsensual sexual acts* (oral and anal penetration) and *abusive sexual contacts* (intentional touching of specific areas of the body). Respondents were considered victims of sexual assault if they answered positively to any of the ten questions. The findings from Wolff and associates (2007) revealed that inmates with a history of sexual victimization prior to age eighteen years were three to five times more likely to experience victimization than inmates without a sexual abuse history (p. 547).

These studies served as justification for the inclusion of the variable *s\_abuse* in the construction of prison sexual assault victimization risk-assessment scales. This variable asked inmates, “when you were coming up, did an adult, relative, friend or someone you trusted

sexually abuse you?” Because of this variable’s focus on prior sexual assault victimization, it was included as a significant predictor.

Knowledge of sexual victimization within the institution also serves as a predictor for victimization. Tewksbury (1989) focused upon the psychological impact that fear plays in the functioning of a penal institution. The author’s primary dependent variable was operationalized by asking three questions: (1) what percentage of the inmates in this prison have been approached by another inmate for sex while in prison?, (2) what percentage of the inmates in this prison have been forced or threatened for sex while in this prison?, and (3) what percentage of the inmates in this prison have been sexually assaulted or raped while in this prison? (p. 64). Tewksbury identifies that it is difficult to reliably and validly assess the concept of fear, and that these questions only assess “a perceived possibility of each action” (p. 64).

Because the questions identified by Tewksbury seem to address a more general knowledge of sexual assault occurring within the facility, the variables *r\_o\_kill*, *r\_v\_kill*, *r\_suic*, *r\_one*, *r\_group*, *r\_witnes*, and *r\_movie* were included in the risk-assessment scale construction. The variables each assess the perception of sexual victimization with the variables *r\_o\_kill* (knowing a rapist who was killed); *r\_v\_kill* (knowing a rape victim who was killed); *r\_suic* (knowing a rape victim who committed suicide); *r\_one* (perceived prevalence of one-on-one rape); *r\_group* (perceived prevalence of group rape); *r\_witnes* (personal knowledge of a rape in any prison in which the inmate had been institutionalized); and *r\_movie* (observing a rape similar to prison rape scenes depicted in movies). These variables, combined with the variable focused on prior sexual abuse, addressed the role that sexual victimization factors play in predicting further sexual victimization.

### *Appearance of Vulnerability*

The discussion of Tewksbury's (1989) study of inmate fear of sexual assault underscores the importance that the appearance of vulnerability has in contributing to male inmate sexual assault. Once again, Tewksbury's study sought to address how fear contributes to victimization. However, the results were varied, with the only statistical indicators being height and weight as correlates of fear (p. 70). While the author had mixed results, his theoretical base was sound. Chonco (1989), through a case study of 40 inmate sexual assault victims and perpetrators, explained that inmates typically identified individuals who look scared or are perceived to be weak as victims of sexual assault (p. 73). Hensley, Koscheski, & Tewksbury (2005) reiterated these findings, identifying perceived vulnerability as a predictor of sexual targeting (p. 675). Wolff, Shi, Blitz, & Siegel (2007) also indicated that likely targets for sexual victimization are those individuals "who appear vulnerable – they appear anxious, depressed, diminutive, immature, and fearful" (p. 553).

To separate the appearance of vulnerability factor from that of sexual victimization, the justification for inclusion of variables is based upon self-reflective perceptions or perceptions of the impact of sexual assault, rather than the knowledge that the events occur, as in the prior section. With this criteria, the variables *r\_entitl* (perception of entitlement to forced sex), *r\_re tali* (retaliation of rape by friends), *r\_worry* (perceived threat of rape), *r\_hear* (heard about an inmate being raped), *r\_folk* (rape folklore within prison), *r\_turn* (perception that raping is the same as turning out), and *s\_attrac* (perception of inmate attraction to themselves) were included, as they address perceptions of rape that can contribute to an inmate's fear and appearance of vulnerability.

### *Staff/Institutional Factors*

Beyond individual characteristics, the staff and institution itself both pose significant factors influencing inmate sexual assault victimization. Eigenberg (2000), addressed correctional officers' definitions of rape and how these influence their reactions toward inmates who have been sexually assaulted. In a survey of 209 officers in a mid-western state in summer and fall of 1991, results indicated that correctional officers tended to have liberal definitions of rape, more often attributing blame to the victim for the occurrence. The author suggested further training of correctional staff was necessary in order to better recognize the physical, behavioral, and emotional symptoms of rape (p. 445). Dumond (2000), likewise indicated that being disliked by the staff served as a risk factor for sexual victimization.

Chonco (1989) addressed a different side of this issue, offering that correctional officers may only have two options in dealing with victims of sexual assault, either protective custody or transfer (p. 78). The main problem, Chonco explained, is that most victims do not report their incident, as they do not want to be further victimized. Furthermore, protective custody and transfer may not help matters, as the inmate loses the little protection their status provided due to being perceived as weak.

Aligning with staff and institutional concerns, variables were selected from the dataset that pertained to both protective and risk factors for sexual assault victimization. Protective factor variables included *r\_preve* (officers try to prevent rape), *s\_trans* (transferring solves sexual pressure), *s\_pc* (safety in protective custody), *r\_report* (known a rape reported to an officer), *r\_talk* (heard officers talking about rape), *r\_protec* (can the system protect from rape), *r\_post* (rape guidelines posted on bulletin boards), and *s\_preven* (officers try to prevent sex). Risk factor variables included *h\_favor* (can homosexuals influence staff), *r\_play* (inmates say

they got raped to play the staff), *s\_off* (inmates and officers have sex), *r\_off* (officers rape inmates), and *r\_snitch* (reporting rape considered snitching). Separated into the protective and risk factors, these variables addressed staff and institutional influences upon inmate sexual victimization.

### *Demographics*

With respect to demographic risk factors, there appears to be widespread agreement as to who are to be likely targets: young Caucasians. For age, Chonco (1989) identified males from the ages of seventeen to twenty as those at a higher risk for sexual assault. Dumond (2000) similarly identified being young and inexperienced as a significant risk factor. Man and Cronan (2001) also identified young males around age 21 years as being of significant risk, but reasoned that it is because this group is more likely to have feminine features that make them seem more appealing to predators (p. 92). After interviewing 174 inmates in three male Oklahoma correctional facilities from August 1998 to May 1999, Hensley, Tewksbury, and Castle (2003) found that the average age of sexual assault targets was 20.5 years. Because of these studies, the effects of *age* were analyzed.

Race was also found to be a significant risk factor. Knowles (1999) focused primarily upon identifying the perpetrators of prison sexual violence. Inadvertently, Knowles also succeeded in identification of victim characteristics, explaining that whites are at particular risk for sexual assault victimization within the prison system. Through utilization of a content analysis methodology, Knowles was able to identify that racism was indicated as the most significant causal factor of prison rape. The author argued that blacks raped in an attempt to humiliate whites because of the perceived injustices perpetrated against blacks over the course of American history, primarily the over-representation of minorities in the prison system. Choco

(1989) made a similar claim, offering that “rape serves as a mechanism by which black inmates can obtain retribution and assert their dominance over whites” (p. 160). In keeping with these claims, the variable *race* was included for analysis as a demographic risk factor.

### *Incarceration Factors*

Beyond demographic, behavioral, and staff and institutional factors, the nature of the inmate’s incarceration also influences their likelihood for sexual assault victimization. Man and Cronan (2001) explained that being recently incarcerated is a significant risk factor for sexual assault, offering that “an inmate is most susceptible to rape upon his initial arrive in prison” (p. 169). Likewise, Hensley and associates (2003) found in their study of 174 inmates in Oklahoma, that targets were incarcerated “an average of 143 days before the first sexual encounter” (p. 601). Because of the risk associated with being recently incarcerated, the variables *state\_mo* (total months in state prison), *state\_\_b* (coded state months in prison), and *state\_\_a* (coded state months in prison) were included for analysis.

However, the nature of the inmate’s conviction is just as pertinent as the inmate’s length of incarceration. Man and Cronan (2001), once again, explained that inmates with convictions for nonviolent crimes are more likely to become victims of sexual assault than violent offenders. Their reasoning for this phenomenon was that the more violent offenders are more likely to act upon their aggressive tendencies and victimize other inmates that are perceived as weak. However, it appears that there is an exception for inmates who commit crimes of a sexual nature. Man and Cronan (2001) explained that inmates who committed sex crimes are often punished within the institution through their own victimization. Similarly, Wolff and associates (2007) offered that having an offense against a child or one of domestic violence placed an inmate at higher risk for sexual victimization, even though the offense is still of a violent nature. Due to



the influence that the inmate's conviction has on sexual victimization, the variable *curr\_c\_b* (current conviction) was included in analysis.

### *Mental Health*

In keeping with vulnerability as an overall predictor of sexual victimization, mental health issues particularly appear to exacerbate the issue. Tewksbury (1989), identified that a history of mental health residency was a particular risk factor for an inmate being targeted for sexual assault. Dumond (2001), likewise, found mental illness to be a significant vulnerable characteristic. It was Wolff, Blitz, and Shi (2007), however, that put mental health characteristics in context. Their analysis of 6, 964 male inmates in 12 male facilities found that “one in 12 male inmates with a mental disorder reported at least one incident of sexual victimization by another inmate over a six month period, compared with 1 in 33 inmates without...” (p. 1090). Because this group constitutes a significant risk for sexual victimization, the variables *mh\_st* (treated for mental health issues on the street) and *mh\_inst* (voluntarily requested mental health treatment in prison) were included for analysis.

### *Sexual Orientation*

Similar to mental health, sexual orientation plays a significant role in risk for sexual assault in prison. Dumond (2000) identified being known in the prison community as homosexual or overtly effeminate as a vulnerable characteristic for inmates. Man and Cronan (2001) also identified homosexuality to be a risk factor, with homosexuals being five times more likely to be sexually victimized (p. 166). The main point the authors make is that feminine qualities place the inmate at risk. Similar to young age, stereotypical homosexual effeminate qualities or being perceived as “not masculine” poses a significant risk for victimization. Hensley and associates (2005) provided the first in-depth study of sexual orientation's impact upon sexual

assault. Their survey of 142 male inmates in a Southern maximum-security correctional facility found that over half of the identified sexual assault victims also identified themselves as bisexual or homosexual prior to entering prison with a similar amount (57%) identifying as having these sexual characteristics within the institution (p. 675). Because of these concerns, the variables *sex\_pr\_a* (sexual preference) and *samesex* (adolescent or adult same-sex experience on the street) were included in this study.

## CHAPTER 3

### METHODOLOGY

#### *Data Collection*

This study made use of Fleisher and Kreinert's (2006) 2004-2005 prison data concerning prison inmate sexuality. Their study included 564 inmates (409 male and 155 female) housed in 30 correctional institutions (23 men's and 7 women's) in 10 states. They used a national sample of incarcerated males who were adults 21 years and older, and included all ethnic backgrounds.

Hence, no new data were collected. No participants were recruited for the Master's Thesis. These data are publicly available from the Inter-University Consortium of Political and Social Research (ICPSR 04556-v1). Fleisher and Kreinert conducted their study as part of a Presidential Task Force on Rape Prevention in Federal Prisons.

The data collection consisted of use of an interview instrument for male and female inmates concerning prison history, mental health, rape, social processes, domestic violence and relationships, staff and institutional factors, perception of social roles, and demographic information. Demographic variables included age, sex, ethnicity, marital status, and sexual orientation. The current study focused upon responses related to sexual assault victimization. Data derived from women are not included in the current study because the research aimed to study risk for sexual assault in male prisons.

The procedures as described by ICPSR: In this survey, the sole method of data collection was inmate interviews. This study's qualitative methodology involved collecting interview data

in comprehensive, semi-structure interviews. A total of 564 inmate participants (409, men; 155 women) in 30 prisons in 10 states were included in the survey. The authors used Federal funds provided by the United States Department of Justice.

### *Measures*

The purpose of the present study was to establish the reliability and validity of a scale that assesses risk for sexual assault. As the review of the literature revealed, prior sexual victimization, knowledge of sexual victimization, fear of sexual assault, staff and institutional tensions, being young, Caucasian, recently incarcerated, having a history of mental illness, and being perceived as homosexual all serve as significant risk factors for sexual assault victimization in prison. As a discussion of the measures below demonstrates, the research takes these findings into account.

*Sexual Victimization.* Eight measures were used to assess prior sexual victimization and knowledge of sexual victimization risk factors. For all measures, respondents were asked to answer either yes (1) or no (0) concerning behaviors within the respective institution. Specifically, respondents were asked (1) if when they were coming up, did an adult, relative, friend or someone they trusted sexually abuse them (*s\_abuse*); (2) whether they knew a rapist who was killed (*r\_o\_kill*); (3) if they ever knew a rape victim who was killed (*r\_v\_kill*); and (4) if they had ever known a rape victim who committed suicide (*r\_suic*). They were then asked (5) if there is one-on-one rape (*r\_one*), and (6) if there is group rape (*r\_group*). Respondents also were asked (7) if they knew for sure of a rape in this or any other prison they've been in (*r\_witnes*); and (8) had they had ever seen a rape, like in the movies (*r\_movie*).

*Appearance of Vulnerability.* Seven measures were used to assess the risk factor of fear of sexual assault. Once again, respondents were asked to answer either yes (1) or no (0) to

questions pertaining to (1) if they think a dude is entitled to the sex he has taken (*r\_entitl*); (2) if someone is raped, will their friends retaliate? (*r\_reтали*); (3) if people are worried about rape and if it is a big threat (*r\_worry*); (4) had they heard about an inmate being raped (*r\_hear*); (5) if there is rape folklore – like stories about notorious rapists of long ago (*r\_folk*); (6) if raping an inmate is the same as turning out an inmate (*r\_turn*); (7) and if an inmate had ever been attracted to them and what happened as a result (*s\_attrac*).

*Staff/Institutional Factors.* Eight measures were used to assess staff and institutional protective factors for sexual assault for sexual assault victimization in prison, and five measures assessed staff and institutional risk factors. With respect to protective factors, respondents were asked (1) if officers try to prevent rape (*r\_preve*); (2) if an inmate is pressed for sex and transfers does that solve the problem? (*s\_trans*); (3) if an inmate is pressed for sex and goes to protective custody (PC) are they safe? (*s\_pc*); (4) if they had ever known a case when someone was raped and reported it to an officer (*r\_report*); (5) if they had ever heard officers talking about a rape (*r\_talk*); (6) the system could protect them from rape (*r\_protec*); (7) if rape guidelines are posted on bulletin boards (*r\_post*); and (8) if officers try to prevent inmates from having sex (*s\_preven*). With respect to risk factors, respondents were asked (1) can homosexuals influence staff to get favors for themselves or others? (*h\_favor*); (2) if inmates ever say they got raped just to play the staff (*r\_play*); (3) if they knew of any cases of officers and inmates having sex (*s\_off*); (4) if they knew cases of officers raping inmates (*r\_off*); and (5) if reporting a rape is considered snitching (*r\_snitch*).

*Demographics.* Two measures were included concerning demographic risk factors. Respondents were asked their age and the results were later coded as (24) 24 years or less, (25) 25-29 years, (30) 30-34 years, (35) 35-39 years, (40) 40-44 years, (45) 45-49 years, (50) 50-54

years, and (55) 55 or more years (*age*). Respondents selected their ethnicity as either (1) black, (2) white, (3) Hispanic, or (4) other (*race*).

*Incarceration Factors.* Four items assessed how recent the inmate had been admitted to the institution. The measure for total months in state prison was coded (6) six months or less, (7) 7-12 months, (13) 13-24 months, (25) 25-36 months, (37) 37-48 months, (49) 49-60 months, (61) 61-84 months, (85) 85-120 months, (121) 121-168 months, (169) 169-216 months, (217) 217-276 months, (277) 277-336 months, and (337) 337 months or more (*state\_mo*). Two measures were coded state months in state prison with (0) less than 120 months, (1) 120 months or more (*state\_\_b*), and (0) 60 months or less, (1) more than 60 months (*state\_\_a*). One measure focused on the inmate's current conviction and was coded (1) violent, (2) non-violent, and (3) drug (*curr\_c\_b*).

*Mental Health.* Two measures assessed mental health issues with the inmates. For both measures, respondents were asked to answer either yes (1) or no (0). Inmates were asked if they had ever been treated for mental health issues on the street (*mh\_st*), and if they had ever voluntarily requested mental health treatment in prison (*mh\_inst*).

*Sexual Orientation.* Two measures were used to assess the sexual orientation of the inmates. Respondents were asked their sexual preference coded as either, (1) straight, (2) gay, or (3) bisexual (*sex\_pr\_a*). Respondents were then asked to answer either (1) yes or (0) no as to whether they had an adolescent or adult same-sex experience on the street (*samesex*).

### *Procedure*

Data from 409 male inmates housed in 30 correctional institutions in 10 states, collected by Fleisher and Kreinert (2006) from 2004-2005, was used for the current analysis. The dataset, syntax file, and codebook were downloaded from the Inter-University Consortium of Political

and Social Research (ICPSR 04556-v1). Frequency distributions were run on each of the identified variables to describe the dataset, determine if missing values needed to be estimated, and evaluate the nature of the missing data.

Preliminary analysis of frequency distributions indicated a range of non-response from about 9% to over 30%. For example, most inmates answered the question, “have you ever seen a rape, like in the movies?” (% missing = 8%), whereas many inmates did not answer the question, “are rape guidelines posted on bulletin boards?” (% missing = 37%). Previous research suggests that respondents will skip sensitive questions. As such, an imputation strategy for dealing with missing responses is needed. If listwise deletion of cases was to be used in construction of indices, then approximately one-half of the data would be lost. Fox-Wasylyshyn and El-Masri (2005) explained that the pattern and extent of the missing data are important due to their influence on validity. The authors also highlighted that no guidelines are present to constitute “excessive missingness” of data, and that a focus on the pattern of missing data must be a primary concern (Fox-Wasylyshyn & El-Masri, 2005, p. 489). Thus, items were imputed in keeping with the conceptual direction of the desired scales. Majority of response valid percentage per variable was used as the criteria for imputations of the identified variables into the response categories of either 0 “no” or 1 “yes.” The cutoff for majority valid percentage was 60%. For variables with a more even valid percentage of responses (41-59%), missing data was imputed into a mid-response category of 0.5. These steps were taken in an attempt to err on the side of conservatism in imputing the values. Imputations were carried out for the variables *s\_abuse*, *r\_group*, *r\_witnes*, *r\_movie*, *r\_entitl*, *r\_worry*, *s\_trans*, *r\_report*, *r\_talk*, *r\_protec*, *r\_post*, *r\_play*, *r\_off*, *mh\_st*, *mh\_inst*, *samesex*, *r\_o\_kill*, *r\_v\_kill*, *r\_suic*, *r\_folk*, *r\_preve*, *h\_favor*, *s\_off*, *r\_snitch*, *r\_one*, *r\_reтали*, *r\_hear*, *r\_turn*, *s\_attrac*, *s\_pc*, and *s\_preven*.

Four risk-assessment indices for sexual assault victimization in prison were then constructed by combining variables guided by the literature review: (1) Sexual Victimization Index (SV Index) =  $s\_abuse + r\_o\_kill + r\_v\_kill + r\_suic + r\_one + r\_group + r\_witness + r\_movie$ ; (2) Appearance of Vulnerability Index (AV Index) =  $r\_entitl + r\_retali + r\_worry + r\_hear + r\_folk + r\_turn + s\_attrac$ ; (3) Staff/Institutional Protective Index (SIP Index) =  $r\_preve + s\_trans + s\_pc + r\_report + r\_talk + r\_protec + r\_post + s\_preven$ ; and (4) Staff/Institutional Risk Index (SIR Index) =  $h\_favor + r\_play + s\_off + r\_off + r\_snitch$ .

Cronbach's  $\alpha$  was used to assess internal consistency of the four scales. An Exploratory Factor Analysis was then conducted on the variables and four indices to determine the relationships between the variables. Specifically, the maximum likelihood (ML) factor technique was used as this procedure maximizes the probability of sampling an observed correlation matrix from a population, and allows for computation of a wide range of indices. Furthermore, this procedure maximizes the correlations between the variables and the factors, and permits statistical significance testing of factor loadings (Tabachnick & Fidell, 2001; Costello & Osborne, 2005). The Kaiser criterion was used to drop all factors with Eigenvalues under 1, and the Scree test was used to further assess factor retention. Prior to interpretation of the factor loadings, Maximum Likelihood (ML) extraction was repeated, yet limited to the number of factors identified in the scree test. This technique was followed by orthogonal (varimax) rotation to clarify the data structure (Costello & Osborne, 2005). Principal axis factoring (PAF) was also tested to compare potential discrepancies in the shared variance.

Construct validity was assessed through the hypotheses: (1) risk for sexual victimization is inversely related to age (RSV Index correlated with *age*), and (2) risk for sexual victimization



is inversely related to total time within an institution (RSV Index correlated with *state\_mo*, RSV Index correlated with *state\_\_b*, RSV Index correlated with *state\_\_a*).

## CHAPTER 4

### ANALYSIS

#### *Frequency Distributions, Descriptive Statistics, and Imputation of Variables*

The Statistical Package for the Social Sciences (SPSS, Version 17.0) was used to compile all frequency distributions. Analysis of frequency distributions was conducted in order to describe the dataset, pinpoint any necessary imputation of variables for subsequent statistical analyses, and evaluate the nature of the missing data. Initially, the dataset had to be decomposed, as the full dataset contained data concerning both male and female inmates, and this study focuses solely upon male inmates. Figure 1 indicates the variables included in the syntax for frequency distributions after all female inmate data had been removed. Further explanation of the variables' meanings may be found in Appendices I & II. The descriptive statistics are presented in the tables below.

```
FREQUENCIES s_abuse r_o_kill r_v_kill r_suic r_one  
r_group r_witnes r_movie r_entitl r_re tali r_worry  
r_hear r_folk r_turn s_attrac r_preve s_trans s_pc  
r_report r_talk r_protec r_post s_preven h_favor  
r_play s_off r_off r_snitch age race state_mo  
state__b state__a curr_c_b mh_st mh_inst sex_pr_a  
samesex.
```

*Figure 1.* Syntax for included variables' frequency distributions.

Missing values were indicated for the majority of the variables. In order to accurately assess reliability of the constructed scales, missing data needed to be either deleted or estimated. As discussed in Chapter 2, Fox-Wasylyshyn and El-Masri (2005) highlighted that no guidelines are present to constitute “excessive missingness” of data, and that a focus on the pattern of missing data must be a primary concern (Fox-Wasylyshyn & El-Masri, 2005, p. 489). While mean imputation strategies might be helpful in normally distributed variables, the variables in this dataset primarily worked with dichotomous variables (Fox-Wasylyshyn & El-Masri, 2005). Thus, items were imputed in keeping with the conceptual direction of the desired scales. Majority of response valid percentage per variable was used as the criteria for imputations of the identified variables into the response categories of either 0 “no” or 1 “yes.” The cutoff for majority valid percentage was 60%. For variables with a more even valid percentage of responses (41-59%), missing data was imputed into a mid-response category of 0.5. These steps were taken in an attempt to err on the side of conservatism in imputing the values.

Table 1 presents the frequency distribution for prior sexual abuse (*s\_abuse*). Respondents to the question “when you were coming up, did an adult, relative, friend or someone you trusted sexually abuse you?” (*s\_abuse*), typically reported that they had not been previously sexually abused. This frequency distribution indicated that 70% of the respondents had not been sexually abused by a close acquaintance when they were younger and that 18% had been previously victimized. The remaining 12% were reported as “missing”. The missing cases were then imputed into the response category of (0) “no” in keeping with the prior outlined criteria. Figure 2 indicates the syntax for the imputation of this variable and Table 2 presents the frequency distribution for prior sexual abuse (*s\_abuse*) after the imputation. Following imputation for the

variable *s\_abuse*, 82% of respondents answered “no” to prior sexual abuse and 18% answered “yes”.

Table 1. Frequency distribution before missing data imputed: Sexually abused by adult, relative, friend, or someone you trusted (*s\_abuse*)

		Frequency	Percent	Valid Percent
Valid	0 No	286	69.9	79.7
	1 Yes	73	17.8	20.3
	Total	359	87.8	100.0
Missing	Blank	50	12.2	
Total		409	100.0	

RECODE *s\_abuse* (-9=0).

*Figure 2.* Syntax for imputing sexually abused by adult, relative, friend, or someone you trusted (*s\_abuse*) missing values to 0 “no.”

Table 2. Frequency distribution after missing data imputed: Sexually abused by adult, relative, friend, or someone you trusted (*s\_abuse*)

		Frequency	Percent	Valid Percent
Valid	0 No	336	82.2	82.2
	1 Yes	73	17.8	17.8
	Total	409	100.0	100.0

For the question, “have you known a rapist who was killed?” (*r\_o\_kill*), the majority of respondents reported that they had not. Table 3 presents the frequency distribution for knowledge

of a rapist who was killed (*r\_o\_kill*). The results indicated that 75% of the respondents had not known a rapist who was killed, 15% had, and the remaining 10% constituted missing cases. These missing cases were then imputed into the response category of (0) “no”, as this is in keeping with the conceptual direction of the variable. Figure 3 indicates the syntax for the imputing of this variable and Table 4 presents the frequency distribution for knowledge of a killed rapist (*r\_o\_kill*) after the imputation. Following imputation for the variable *r\_o\_kill*, 85% of respondents answered “no” to knowledge of a killed rapist and 15% answered “yes”.

Table 3. Frequency distribution before missing data imputed: Known a rapist who was killed (*r\_o\_kill*)

		Frequency	Percent	Valid Percent
Valid	No	305	74.6	83.3
	Yes	61	14.9	16.7
	Total	366	89.5	100.0
Missing	Blank	43	10.5	
Total		409	100.0	

RECODE *r\_o\_kill* (-9=0).

Figure 3. Syntax for imputing known a rapist who was killed (*r\_o\_kill*) missing values to 0 “no.”

Table 4. Frequency distribution after missing data imputed: Known a rapist who was killed (*r\_o\_kill*)

		Frequency	Percent	Valid Percent
Valid	No	348	85.1	85.1
	Yes	61	14.9	14.9
	Total	409	100.0	100.0

The responses to the question, “have you ever known a rape victim who was killed?” (*r\_v\_kill*), revealed that most had not known a murdered rape victim. Table 5 presents the frequency distribution for knowledge of a rape victim being killed (*r\_v\_kill*). The frequency distribution indicated that 76% had not known a rape victim who was killed, 6% had known one, and 18% constituted missing cases. The missing cases were then imputed into the response category of (0) “no”, as this is in keeping with the conceptual direction of the variable. Figure 4 indicates the syntax for the imputation of this variable and Table 6 presents the frequency distribution for knowledge of a killed rape victim (*r\_v\_kill*) after the imputation. Following imputation for the variable *r\_v\_kill*, 94% of respondents answered “no” to knowledge of a killed rape victim and 6% answered “yes”.

Table 5. Frequency distribution before missing data imputed: Known rape victim who was killed (*r\_v\_kill*)

		Frequency	Percent	Valid Percent
Valid	0 No	311	76.0	92.3
	1 Yes	26	6.4	7.7
	Total	337	82.4	100.0
Missing	Blank	72	17.6	
Total		409	100.0	

RECODE *r\_v\_kill* (-9 = 0).

Figure 4. Syntax for imputing Known rape victim who was killed (*r\_v\_kill*) missing values to 0 “no.”

Table 6. Frequency distribution after missing data imputed: Known rape victim who was killed (*r\_v\_kill*)

		Frequency	Percent	Valid Percent
Valid	No	383	93.6	93.6
	Yes	26	6.4	6.4
	Total	409	100.0	100.0

Most respondents answered that they had not known a rape victim who had committed suicide (*r\_suic*). The frequency distribution for this variable (*r\_suic*) is presented in Table 7. The results indicated that 61% had not known a rape victim who committed suicide, 16% had known one, and 18% were left as missing cases. These cases were then imputed into the response category of (0) “no,” as this is in keeping with the conceptual direction of the variable. The syntax for the imputation of this variable is indicated in Figure 5 and Table 8 presents the frequency distribution for knowledge of a rape victim who committed suicide (*r\_suic*) after the imputation. Following imputation for the variable *r\_suic*, 84% of respondents answered “no” to knowledge of a rape victim who committed suicide and 16% answered “yes”.

Table 7. Frequency distribution before missing data imputed: Known rape victim who committed suicide (*r\_suic*)

		Frequency	Percent	Valid Percent
Valid	0 No	249	60.9	79.6
	1 Yes	64	15.6	20.4
	Total	313	76.5	100.0
Missing	Blank	96	23.5	
Total		409	100.0	

RECODE r\_suic (-9 = 0).

Figure 5. Syntax for imputing known rape victim who committed suicide (r\_suic) missing values to 0 “no.”

Table 8. Frequency distribution after missing data imputed: Known rape victim who committed suicide (r\_suic)

		Frequency	Percent	Valid Percent
Valid	No	345	84.4	84.4
	Yes	64	15.6	15.6
Total		409	100.0	100.0

After analysis of the frequency distribution for the question, “is there one-on-one rape?” (*r\_one*), responses were found to be a bit more even. This variable’s (*r\_one*) frequency distribution is presented in Table 9. Only 40% reported that there was not one-on-one rape, while 48% reported that there was, and 11% constituted missing cases. Because the valid percentage (0 “no” = 46%, 1 “yes” = 54%) was very even, the missing cases were imputed into the mid-response category of 0.5. The syntax for the imputation of this variable is indicated in Figure 6 and Table 10 presents the frequency distribution for perceived prevalence of one-on-one rape (*r\_one*) after the imputation. Following imputation for the variable *r\_one*, 40% of respondents answered “no” to whether or not there was one-on-one rape, 11% constituted the mid-response category, and 48% answered “yes”.



Table 9. Frequency distribution before missing data imputed: Perceived prevalence of one-on-one rape (r\_one)

		Frequency	Percent	Valid Percent
Valid	0 No	165	40.3	45.7
	1 Yes	196	47.9	54.3
	Total	361	88.3	100.0
Missing	Blank	48	11.7	
Total		409	100.0	

RECODE r\_one (-9 = 0.5).

*Figure 6.* Syntax for imputing perceived prevalence of one-on-one rape (r\_one) missing values to mid-response 0.5.

Table 10. Frequency distribution after missing data imputed: Perceived prevalence of one-on-one rape (r\_one)

		Frequency	Percent	Valid Percent
Valid	0 No	165	40.3	40.3
	0.5 Mid	48	11.7	11.7
	1 Yes	196	47.9	47.9
	Total	409	100.0	100.0

In regards to whether or not there is group rape (*r\_group*), the majority of respondents reported that there was not. Table 11 depicts the frequency distribution for this variable (*r\_group*). Of the respondents, 56% reported that there was not group rape and 32% reported that there was. Missing cases constituted 12% and were imputed as (0) “no”. The syntax for the imputation of this variable is indicated in Figure 7 and Table 12 presents the frequency distribution for perceived prevalence of group rape (*r\_group*) after the imputation. Following imputation for the variable *r\_group*, 68% of respondents answered “no” to whether or not there was group rape and 32% answered “yes”.

Table 11. Frequency distribution before missing data imputed: Perceived prevalence of group rape (*r\_group*)

		Frequency	Percent	Valid Percent
Valid	0 No	227	55.5	63.2
	1 Yes	132	32.3	36.8
	Total	359	87.8	100.0
Missing	Blank	50	12.2	
Total		409	100.0	

RECODE *r\_group* (-9 = 0).

Figure 7. Syntax for imputing Perceived prevalence of group rape (*r\_group*) missing values to 0 “no.”

Table 12. Frequency distribution after missing data imputed: Perceived prevalence of group rape (r\_group)

		Frequency	Percent	Valid Percent
Valid	0 No	277	67.7	67.7
	1 Yes	132	32.3	32.3
	Total	409	100.0	100.0

The variable *r\_witnes* asked respondents “do you know for sure of a rape in this or any other prison you’ve been in?” For the most part, respondents had not known of a rape in their institution. The frequency distribution for *r\_witnes* is presented in Table 13. The majority of respondents (71%) reported not knowing for sure of a rape in their institution, while 20% reported that they did know for certain of a rape, and 9% were missing cases. The missing cases were imputed as (0) “no” with the syntax for the imputation of this variable is indicated in Figure 8. Table 14 presents the frequency distribution for personal knowledge of rape in any prison the inmate had been institutionalized (*r\_witnes*) after the imputation. Following imputation for the variable *r\_witnes*, 80% of respondents answered “no” to whether or not they had known for certain of a rape and 20% answered “yes”.

Table 13. Frequency distribution before missing data imputed: Personal knowledge of rape in any prison in which you have been institutionalized (r\_witnes)

		Frequency	Percent	Valid Percent
Valid	0 No	290	70.9	78.0
	1 Yes	82	20.0	22.0
	Total	372	91.0	100.0
Missing	Blank	37	9.0	
Total		409	100.0	

RECODE r\_witnes (-9 = 0).

Figure 8. Syntax for imputing personal knowledge of rape in any prison in which you have been institutionalized (r\_witnes) missing values to 0 “no.”

Table 14. Frequency distribution after missing data imputed: Personal knowledge of rape in any prison in which you have been institutionalized (r\_witnes)

		Frequency	Percent	Valid Percent
Valid	0 No	327	80.0	80.0
	1 Yes	82	20.0	20.0
	Total	409	100.0	100.0

For the variable *r\_movie*, respondents were asked “have you ever seen a rape, like in the movies?” Most respondents had not seen a rape. For the frequency distribution represented in Table 15, 81% had not seen rape like in the movies and 11% had seen one. Missing cases constituted 7.8% and were imputed into the response category (0) “no”. The syntax for the imputation of *r\_movie* is indicated in Figure 9 and Table 16 presents the frequency distribution for having seen a rape like in the movies (*r\_movie*) after the imputation. Following imputation for the variable *r\_movie*, 89% of respondents answered “no” to if they had observed a rape like in the movies and 11% answered “yes”.

Table 15. Frequency distribution before missing data imputed: Observed rape in the movies (r\_movie)

		Frequency	Percent	Valid Percent
Valid	0 No	332	81.2	88.1
	1 Yes	45	11.0	11.9
	Total	377	92.2	100.0
Missing	Blank	32	7.8	
Total		409	100.0	

RECODE r\_movie (-9 = 0).

Figure 9. Syntax for imputing observed rape in the movies (r\_movie) missing values to 0 “no.”

Table 16. Frequency distribution after missing data imputed: Observed rape in the movies (r\_movie)

		Frequency	Percent	Valid Percent
Valid	0 No	364	89.0	89.0
	1 Yes	45	11.0	11.0
	Total	409	100.0	100.0

The variable *r\_entitl* assessed whether or not the respondent thought “a dude is entitled to the sex he has taken” (*r\_entitl*). Once again, most respondents reported “no”. Table 17 indicates the frequency distribution for this variable (*r\_entitl*), indicating that 53% of respondents did not believe that a “dude” is entitled to the sex he has taken, 21% believed that he is entitled, and 26% constituted missing cases. The missing cases were then imputed into the response category (0) “no” in keeping with the prior criteria. Figure 10 presents the syntax for the imputation of

*r\_entitl* and Table 18 presents the frequency distribution for perception of entitlement to forced sex (*r\_entitl*) after the imputation. Following imputation for the variable *r\_entitl*, 79% of respondents answered “no” to a dude being entitled to the sex he has taken and 21% answered “yes”.

Table 17. Frequency distribution before missing data imputed: Perception of entitlement to forced sex (*r\_entitl*)

		Frequency	Percent	Valid Percent
Valid	0 No	217	53.1	71.4
	1 Yes	87	21.3	28.6
	Total	304	74.3	100.0
Missing	Blank	105	25.7	
Total		409	100.0	

RECODE *r\_entitl* (-9 = 0).

*Figure 10.* Syntax for imputing perception of entitlement to forced sex (*r\_entitl*) missing values to 0 “no.”

Table 18. Frequency distribution after missing data imputed: Perception of entitlement to forced sex (*r\_entitl*)

		Frequency	Percent	Valid Percent
Valid	0 No	322	78.7	78.7
	1 Yes	87	21.3	21.3
	Total	409	100.0	100.0

When respondents were asked “if someone is raped, will their friends retaliate?” (*r\_retali*), the responses were slightly more even. Table 19 presents the frequency distribution for this variable, with 38% reporting that friends would not retaliate against rape, 52% reported that they would, and 11% constituted missing cases. Because the valid percentage (0 “no” = 42%, 1 “yes” = 58%) was very even, the missing cases were imputed into the mid-response category of 0.5. The syntax for the imputation of this variable is indicated in Figure 11 and Table 20 presents the frequency distribution for perceived of retaliation of rape by friends (*r\_retali*) after the imputation. Following imputation for the variable *r\_retali*, 38% of respondents answered “no” to whether friends would retaliate against rape, 11% constituted the mid-response category, and 52% answered “yes”.

Table 19. Frequency distribution before missing data imputed: Retaliation of rape by friends (*r\_retali*)

		Frequency	Percent	Valid Percent
Valid	0 No	154	37.7	42.1
	1 Yes	212	51.8	57.9
	Total	366	89.5	100.0
Missing	Blank	43	10.5	
Total		409	100.0	

```
RECODE r_retali (-9 = 0.5).
```

Figure 11. Syntax for imputing retaliation of rape by friends (*r\_retali*) missing values to mid-response 0.5.

Table 20. Frequency distribution after missing data imputed: Retaliation of rape by friends (r\_retali)

		Frequency	Percent	Valid Percent
Valid	0 No	154	37.7	37.7
	0.5 Mid	43	10.5	10.5
	1 Yes	212	51.8	51.8
	Total	409	100.0	100.0

Inmates were asked “are people worried about rape and is it a big threat?” (*r\_worry*). Predominately, most respondents answered that people do not worry about rape. The frequency distribution for this variable is presented in Table 21. Most (72%) reported that people are not worried about rape, while 20% answered that they were, and 8% constituted missing cases. The missing cases were then imputed into the response category (0) “no” in keeping with the prior criteria. Figure 12 presents the syntax for the imputation of *r\_worry* and Table 22 presents the frequency distribution for the perceived threat of rape (*r\_worry*) after the imputation. Following imputation for the variable *r\_worry*, 80% of respondents answered “no” to whether people were worried about rape and 20% answered “yes”.

Table 21. Frequency distribution before missing data imputed: Perceived threat of rape (r\_worry)

*Frequency Distribution: r\_worry*

		Frequency	Percent	Valid Percent
Valid	0 No	295	72.1	78.7
	1 Yes	80	19.6	21.3
	Total	375	91.7	100.0
Missing	Blank	34	8.3	
Total		409	100.0	



RECODE r\_worry (-9=0).

Figure 12. Syntax for imputing perceived threat of rape (r\_worry) missing values to 0 “no.”

Table 22. Frequency distribution after missing data imputed: Perceived threat of rape (r\_worry)

		Frequency	Percent	Valid Percent
Valid	0 No	329	80.4	80.4
	1 Yes	80	19.6	19.6
	Total	409	100.0	100.0

When inmates were asked “have you heard about an inmate being raped?” (*r\_hear*), responses were slightly more even with 37% having reported that they had not heard about an inmate being raped and 50% having reported that they had heard of a rape incident. Frequency distributions for this variable are presented in Table 23. Missing cases constituted 13% and were imputed into the mid-response category of 0.5 because the valid percentage (0 “no” = 42%, 1 “yes” = 58%) was somewhat even. The syntax for the imputation of this variable is indicated in Figure 13 and Table 24 presents the frequency distribution for hearing about an inmate being raped (*r\_hear*) after the imputation. Following imputation for the variable *r\_hear*, 37% of respondents answered “no” to hearing about a rape, 13% constituted the mid-response category, and 50% answered “yes”.

Table 23. Frequency distribution before missing data imputed: Heard about an inmate being raped (r\_hear)

		Frequency	Percent	Valid Percent
Valid	0 No	150	36.7	42.1
	1 Yes	206	50.4	57.9
	Total	356	87.0	100.0
Missing	Blank	53	13.0	
Total		409	100.0	

RECODE r\_hear (-9=0.5).

Figure 13. Syntax for imputing heard about an inmate being raped (r\_hear) missing values to mid-response 0.5.

Table 24. Frequency distribution after missing data imputed: Heard about an inmate being raped (r\_hear)

		Frequency	Percent	Valid Percent
Valid	0 No	150	36.7	36.7
	0.5 Mid	53	13.0	13.0
	1 Yes	206	50.4	50.4
	Total	409	100.0	100.0

For the question, “is there rape folklore – like stories about notorious rapists of long ago?” (*r\_folk*), most reported that rape folklore was present. Table 25 presents the frequency distribution for this variable and indicates that 32% reported that there was not rape folklore, 54% reported that there was, and 14% constituted missing cases. These cases were then imputed into the response category of (1) “yes,” as this is in keeping with the conceptual direction of the

variable. The syntax for the imputation of this variable is indicated in Figure 14 and Table 26 presents the frequency distribution for rape folklore within prison (*r\_folk*) after the imputation. Following imputation for the variable *r\_folk*, 32% of respondents answered “no” to the presence of rape folklore and 68% answered “yes”.

Table 25. Frequency distribution before missing data imputed: Rape folklore within prison (*r\_folk*)

		Frequency	Percent	Valid Percent
Valid	0 No	131	32.0	37.4
	1 Yes	219	53.5	62.6
	Total	350	85.6	100.0
Missing	Blank	59	14.4	
Total		409	100.0	

RECODE *r\_folk* (-9 = 1).

Figure 14. Syntax for imputing rape folklore within prison (*r\_folk*) missing values to 1 “yes.”

Table 26. Frequency distribution after missing data imputed: Rape folklore within prison (*r\_folk*)

		Frequency	Percent	Valid Percent
Valid	0 No	131	32.0	32.0
	1 Yes	278	68.0	68.0
	Total	409	100.0	100.0

Respondents were asked “is raping an inmate the same as turning out an inmate?” (*r\_turn*), with responses being slightly more even. The frequency distribution for this variable is presented in Table 27. A slight majority of the respondents (51%) reported that raping an inmate is not the same as turning out an inmate, 38% reported that it was the same, and 12% constituted missing cases. Because the valid percentage (0 “no” = 57%, 1 “yes” = 43%) was somewhat even, the missing cases were imputed into the mid-response category of 0.5. The syntax for the imputation of this variable is indicated in Figure 15 and Table 28 presents the frequency distribution for the perception that raping is the same as turning out (*r\_turn*) after the imputation. Following imputation for the variable *r\_turn*, 51% of respondents answered “no” to whether or not raping is the same as turning out, 12% constituted the mid-response category, and 38% answered “yes”.

Table 27. Frequency distribution before missing data imputed: Perception that raping is the same turning out (*r\_turn*)

		Frequency	Percent	Valid Percent
Valid	0 No	207	50.6	57.3
	1 Yes	154	37.7	42.7
	Total	361	88.3	100.0
Missing	Blank	48	11.7	
Total		409	100.0	

RECODE *r\_turn* (-9=0.5).

*Figure 15.* Syntax for imputing perception that raping is the same turning out (*r\_turn*) missing values to mid-response 0.5.

Table 28. Frequency distribution after missing data imputed: Perception that raping is the same turning out (r\_turn)

		Frequency	Percent	Valid Percent
Valid	0 No	207	50.6	50.6
	0.5 Mid	48	11.7	11.7
	1 Yes	154	37.7	37.7
	Total	409	100.0	100.0

Responses were slightly even for the question “has an inmate ever been attracted to you? What happened?” (*s\_attrac*). Table 29 presents the frequency distribution for this variable, indicating that 41% reported that they had not had an inmate attracted to themselves, 34% had, and 25% were missing cases. Because the valid percentage (0 “no” = 55%, 1 “yes” = 45%) was somewhat even, the missing cases were imputed into the mid-response category of 0.5. The syntax for the imputation of this variable is indicated in Figure 16 and Table 30 presents the frequency distribution for the perception of inmate attraction to themselves (*s\_attrac*) after the imputation. Following imputation for the variable *s\_attrac*, 41% of respondents answered “no” to having an inmate be attracted to themselves, 25% constituted the mid-response category, and 34% answered “yes”.

Table 29. Frequency distribution before missing data imputed: Perception of inmate attraction to themselves (s\_attrac)

		Frequency	Percent	Valid Percent
Valid	0 No	168	41.1	54.9
	1 Yes	138	33.7	45.1
	Total	306	74.8	100.0
Missing	Blank	103	25.2	
Total		409	100.0	

RECODE s\_attrac (-9=0.5).

Figure 16. Syntax for imputing perception of inmate attraction to themselves (s\_attrac) missing values to mid-response 0.5.

Table 30. Frequency distribution after missing data imputed: Perception of inmate attraction to themselves (s\_attrac)

*Frequency Distribution: s\_attrac*

		Frequency	Percent	Valid Percent
Valid	0 No	168	41.1	41.1
	0.5 Mid	103	25.2	25.2
	1 Yes	138	33.7	33.7
	Total	409	100.0	100.0

For the variable *r\_preve*, respondents were asked “do officers try to prevent rape?” Respondents, for the most part, indicated that officers to try to prevent rape from happening. Table 31 presents the frequency distribution for this variable, indicating that 31% did not believe that officers tried to prevent rape, 47% did believe so, and 22% constituted missing cases. These cases were then imputed into the response category of (1) “yes,” as this is in keeping with the conceptual direction of the variable. The syntax for the imputation of this variable is indicated in Figure 17 and Table 32 presents the frequency distribution for the perception that officers try to prevent rape (*r\_preve*) after the imputation. Following imputation for the variable *r\_preve*, 31% of respondents answered “no” to officers trying to prevent rape and 69% answered “yes”.

Table 31. Frequency distribution before missing data imputed: Officers try to prevent rape (r\_preve)

		Frequency	Percent	Valid Percent
Valid	0 No	128	31.3	40.0
	1 Yes	192	46.9	60.0
	Total	320	78.2	100.0
Missing	Blank	89	21.8	
Total		409	100.0	

RECODE r\_preve (-9=1).

Figure 17. Syntax for imputing officers try to prevent rape (r\_preve) missing values to 1 “yes.”

Table 32. Frequency distribution after missing data imputed: Officers try to prevent rape (r\_preve)

		Frequency	Percent	Valid Percent
Valid	0 No	128	31.3	31.3
	1 Yes	281	68.7	68.7
	Total	409	100.0	100.0

Respondents to the question “if an inmate is pressed for sex and transfers does that solve the problem?” (*s\_trans*) typically answered “no”. The frequency distribution for this variable is presented in table 33 and indicates that 54% did not believe transferring solves the problem, 23% did believe so, and 24% constituted missing cases. The missing cases were then imputed into the response category (0) “no” in keeping with the prior criteria. Figure 18 presents the syntax for

the imputation of *s\_trans* and Table 34 presents the frequency distribution for the perception that transferring solves sexual pressure (*s\_trans*) after the imputation. Following imputation for the variable *s\_trans*, 77% of respondents answered “no” to whether transferring solves sexual pressure and 23% answered “yes”.

Table 33. Frequency distribution before missing data imputed:  
Transferring solves sexual pressure (*s\_trans*)

		Frequency	Percent	Valid Percent
Valid	0 No	219	53.5	70.0
	1 Yes	94	23.0	30.0
	Total	313	76.5	100.0
Missing	Blank	96	23.5	
Total		409	100.0	

RECODE *s\_trans* (-9=0).

Figure 18. Syntax for imputing transferring solves sexual pressure (*s\_trans*) missing values to 0 “no.”

Table 34. Frequency distribution after missing data imputed: Transferring solves sexual pressure (*s\_trans*)

		Frequency	Percent	Valid Percent
Valid	0 No	315	77.0	77.0
	1 Yes	94	23.0	23.0
	Total	409	100.0	100.0



In response to the question “if an inmate is pressed for sex and goes into protective custody (PC) are they safe?” (*s\_pc*), inmates answered more evenly. Table 35 presents the frequency distribution for this variable and indicates that 42% did not believe protective custody would keep an inmate safe, 33% did believe so, and 25% constituted missing cases. Because the valid percentage (0 “no” = 56%, 1 “yes” = 44%) was somewhat even, the missing cases were imputed into the mid-response category of 0.5. The syntax for the imputation of this variable is indicated in Figure 19 and Table 36 presents the frequency distribution for the perception safety in protective custody (*s\_pc*) after the imputation. Following imputation for the variable *s\_pc*, 42% of respondents answered “no” to whether protective custody can protect inmates, 25% constituted the mid-response category, and 33% answered “yes”.

Table 35. Frequency distribution before missing data imputed: Safety in protective custody (*s\_pc*)

		Frequency	Percent	Valid Percent
Valid	0 No	170	41.6	55.6
	1 Yes	136	33.3	44.4
	Total	306	74.8	100.0
Missing	Blank	103	25.2	
Total		409	100.0	

RECODE *s\_pc* (-9=0.5).

*Figure 19.* Syntax for imputing safety in protective custody (*s\_pc*) missing values to mid-response 0.5.

Table 36. Frequency distribution after missing data imputed: Safety in protective custody (s\_pc)

		Frequency	Percent	Valid Percent
Valid	0 No	170	41.6	41.6
	0.5 Mid	103	25.2	25.2
	1 Yes	136	33.3	33.3
	Total	409	100.0	100.0

When asked “have you ever known a case when someone was raped and reported it to an officer?” (*r\_report*), most answered that they had not. The frequency distribution for this variable is presented in Table 37 and indicates that 52% had not known an inmate that had been raped and reported to an officer, 26% had known one, and 22% constituted missing cases. The missing cases were then imputed into the response category (0) “no” in keeping with the prior criteria. Figure 20 presents the syntax for the imputation of *r\_report* and Table 38 presents the frequency distribution for knowledge of a rape victim reporting an incident to an officer (*r\_report*) after the imputation. Following imputation for the variable *r\_report*, 74% of respondents answered “no” to knowing an inmate reporting to an officer and 26% answered “yes”.

Table 37. Frequency distribution before missing data imputed: Known rape reported to officer (r\_report)

		Frequency	Percent	Valid Percent
Valid	0 No	212	51.8	66.5
	1 Yes	107	26.2	33.5
	Total	319	78.0	100.0
Missing	Blank	90	22.0	
Total		409	100.0	

RECODE r\_report (-9=0).

*Figure 20.* Syntax for imputing known rape reported to officer (r\_report) missing values to 0 “no.”

Table 38. Frequency distribution after missing data imputed: Known rape reported to officer (r\_report)

		Frequency	Percent	Valid Percent
Valid	0 No	302	73.8	73.8
	1 Yes	107	26.2	26.2
	Total	409	100.0	100.0

For the variable *r\_talk*, inmates were asked “have you ever heard officers talking about a rape?” Table 39 presents the frequency distribution for this variable, indicating that the majority of respondents (57%) had not heard officers talking about rape, while 24% had, and 20% constituted missing cases. The missing cases were then imputed into the response category (0) “no” in keeping with the prior criteria. Figure 21 presents the syntax for the imputation of *r\_talk* and Table 40 presents the frequency distribution for hearing officers talk about rape (*r\_talk*) after the imputation. Following imputation for the variable *r\_talk*, 77% of respondents answered “no” to hearing an officer talk about rape and 24% answered “yes”.

Table 39. Frequency distribution before missing data imputed: Heard officers talking about rape (*r\_talk*)

		Frequency	Percent	Valid Percent
Valid	0 No	233	57.0	70.8
	1 Yes	96	23.5	29.2
	Total	329	80.4	100.0
Missing	Blank	80	19.6	
Total		409	100.0	

RECODE *r\_talk* (-9=0).

*Figure 21.* Syntax for imputing heard officers talking about rape (*r\_talk*) missing values to 0 “no.”

Table 40. Frequency distribution after missing data imputed: Heard officers talking about rape (r\_talk)

		Frequency	Percent	Valid Percent
Valid	0 No	313	76.5	76.5
	1 Yes	96	23.5	23.5
	Total	409	100.0	100.0

Respondents to the question “can the system protect you from rape?” (*r\_protec*) typically answered “no”. The frequency distribution for this variable is presented in table 41 and indicates that 44% did not believe the system could protect them, 19% did believe so, and 37% constituted missing cases. The missing cases were then imputed into the response category (0) “no” in keeping with the prior criteria. Figure 22 presents the syntax for the imputation of *r\_protec* and Table 42 presents the frequency distribution for the perception that the system can protect inmates from rape (*r\_protec*) after the imputation. Following imputation for the variable *r\_protec*, 81% of respondents answered “no” to whether the system can protect inmates from rape and 19% answered “yes”.

Table 41. Frequency distribution before missing data imputed: Can system protect from rape (r\_protec)

		Frequency	Percent	Valid Percent
Valid	0 No	181	44.3	70.2
	1 Yes	77	18.8	29.8
	Total	258	63.1	100.0
Missing	Blank	151	36.9	
Total		409	100.0	

RECODE r\_protec (-9=0).

Figure 22. Syntax for imputing can system protect from rape (r\_protec) missing values to 0 “no.”

Table 42. Frequency distribution after missing data imputed: Can system protect from rape (r\_protec)

		Frequency	Percent	Valid Percent
Valid	0 No	332	81.2	81.2
	1 Yes	77	18.8	18.8
	Total	409	100.0	100.0

In response to the question “are rape guidelines posted on bulletin boards?” (*r\_post*), inmates typically answered that they were not. Table 43 presents the frequency distribution for this variable and indicates that 56% did not believe rape guidelines were posted, 9% did believe so, and 36% constituted missing cases. These cases were then imputed into the response category of (0) “no,” as this is in keeping with the conceptual direction of the variable. The syntax for the imputation of this variable is indicated in Figure 23 and Table 44 presents the frequency distribution for the perception rape guidelines are posted on bulletin boards (*r\_post*) after the imputation. Following imputation for the variable *r\_post*, 91% of respondents answered “no” to rape guidelines being posted and 9% answered “yes”.

Table 43. Frequency distribution before missing data imputed: Rape guidelines posted on bulletin boards (r\_post)

		Frequency	Percent	Valid Percent
Valid	0 No	228	55.7	86.7
	1 Yes	35	8.6	13.3
	Total	263	64.3	100.0
Missing	Blank	146	35.7	
Total		409	100.0	

RECODE r\_post (-9=0).

Figure 23. Syntax for imputing rape guidelines posted on bulletin boards (r\_post) missing values to 0 “no.”

Table 44. Frequency distribution after missing data imputed: Rape guidelines posted on bulletin boards (r\_post)

		Frequency	Percent	Valid Percent
Valid	0 No	374	91.4	91.4
	1 Yes	35	8.6	8.6
	Total	409	100.0	100.0

When asked “do officers try to prevent inmates from having sex?” (*s\_preven*), inmates answered more evenly. Table 45 presents the frequency distribution for this variable and indicates that 44% did not believe officers tried to prevent inmates from having sex, 43% did believe so, and 14% constituted missing cases. Because the valid percentage (0 “no” = 51%, 1

“yes” = 49%) was very even, the missing cases were imputed into the mid-response category of 0.5. The syntax for the imputation of this variable is indicated in Figure 24 and Table 46 presents the frequency distribution for the perception that officers try to prevent inmates from having sex (*s\_preven*) after the imputation. Following imputation for the variable *s\_preven*, 44% of respondents answered “no” to whether officers try to prevent inmates from having sex, 14% constituted the mid-response category, and 43% answered “yes”.

Table 45. Frequency distribution before missing data imputed: Officers try to prevent sex (*s\_preven*)

		Frequency	Percent	Valid Percent
Valid	0 No	179	43.8	50.7
	1 Yes	174	42.5	49.3
	Total	353	86.3	100.0
Missing	Blank	56	13.7	
Total		409	100.0	

RECODE *s\_preven* (-9=0.5).

*Figure 24.* Syntax for imputing officers try to prevent sex (*s\_preven*) missing values to mid-response 0.5.



Table 46. Frequency distribution after missing data imputed: Officers try to prevent sex (s\_preven)

		Frequency	Percent	Valid Percent
Valid	0 No	179	43.8	43.8
	0.5 Mid	56	13.7	13.7
	1 Yes	174	42.5	42.5
	Total	409	100.0	100.0

For the variable *h\_favor*, inmates were asked “can homosexuals influence staff to get favors for themselves or others?” Table 47 presents the frequency distribution for this variable, indicating that the majority of respondents (33%) believed homosexuals could influence the staff, while 22% believed that they could not, and 45% constituted missing cases. These cases were then imputed into the response category of (1) “yes,” as this is in keeping with the conceptual direction of the variable. The syntax for the imputation of this variable is indicated in Figure 25 and Table 48 presents the frequency distribution for the perception that homosexuals can influence the prison staff (*h\_favor*) after the imputation. Following imputation for the variable *h\_favor*, 22% of respondents answered “no” to homosexuals having the ability to influence the prison staff and 78% answered “yes”.

Table 47. Frequency distribution before missing data imputed: Can homosexuals influence staff (h\_favor)

		Frequency	Percent	Valid Percent
Valid	0 No	90	22.0	39.8
	1 Yes	136	33.3	60.2
	Total	226	55.3	100.0
Missing	Blank	183	44.7	
Total		409	100.0	

RECODE h\_favor (-9=1).

Figure 25. Syntax for imputing can homosexuals influence staff (h\_favor) missing values to 1 “yes.”

Table 48. Frequency distribution after missing data imputed: Can homosexuals influence staff (h\_favor)

		Frequency	Percent	Valid Percent
Valid	0 No	90	22.0	22.0
	1 Yes	319	78.0	78.0
	Total	409	100.0	100.0

Respondents to the question “do inmates ever say they got raped just to play the staff?” (*r\_play*) typically answered “no”. The frequency distribution for this variable is presented in table 49 and indicates that 50% did not believe inmates said they got raped to play the staff, 30% did believe so, and 20% constituted missing cases. The missing cases were then imputed into the response category (0) “no” in keeping with the prior criteria. Figure 26 presents the syntax for the imputation of *r\_play* and Table 50 presents the frequency distribution for the perception that inmates say they got raped to play the staff (*r\_play*) after the imputation. Following imputation for the variable *r\_play*, 70% of respondents answered “no” to whether inmates say they got raped to play the staff and 30% answered “yes”.

Table 49. Frequency distribution before missing data imputed: Inmates say they got raped to play staff (r\_play)

		Frequency	Percent	Valid Percent
Valid	0 No	205	50.1	62.5
	1 Yes	123	30.1	37.5
	Total	328	80.2	100.0
Missing	Blank	81	19.8	
Total		409	100.0	

RECODE r\_play (-9=0).

Figure 26. Syntax for imputing inmates say they got raped to play staff (r\_play) missing values to 0 “no.”

Table 50. Frequency distribution after missing data imputed: Inmates say they got raped to play staff (r\_play)

		Frequency	Percent	Valid Percent
Valid	0 No	286	69.9	69.9
	1 Yes	123	30.1	30.1
	Total	409	100.0	100.0

In response to the question “do you know of any cases of officers and inmates having sex?” (*s\_off*), inmates typically answered that they knew of instances of this event occurring. Table 51 presents the frequency distribution for this variable, indicating that 31% did not believe that officers had sex with inmates, 61% did believe so, and 8% constituted missing cases. These cases were then imputed into the response category of (1) “yes,” as this is in keeping with the

conceptual direction of the variable. The syntax for the imputation of this variable is indicated in Figure 27 and Table 52 presents the frequency distribution for the perception that officers have sex with inmates (*s\_off*) after the imputation. Following imputation for the variable *s\_off*, 31% of respondents answered “no” to officers trying to prevent rape and 69% answered “yes”.

Table 51. Frequency distribution before missing data imputed: Inmates and officers have sex (*s\_off*)

		Frequency	Percent	Valid Percent
Valid	0 No	128	31.3	34.0
	1 Yes	248	60.6	66.0
	Total	376	91.9	100.0
Missing	Blank	33	8.1	
Total		409	100.0	

RECODE *s\_off* (-9=1).

Figure 27. Syntax for imputing inmates and officers have sex (*s\_off*) missing values to 1 “yes.”

Table 52. Frequency distribution after missing data imputed: Inmates and officers have sex (*s\_off*)

		Frequency	Percent	Valid Percent
Valid	0 No	128	31.3	31.3
	1 Yes	281	68.7	68.7
	Total	409	100.0	100.0

When asked “do you know of any cases of officers raping inmates?” (*r\_off*), inmates typically answered “no”. The frequency distribution for this variable is presented in table 53 and indicates that 75% did not believe officers raped inmates, 6% did believe so, and 19% constituted missing cases. The missing cases were then imputed into the response category (0) “no” in keeping with the prior criteria. Figure 28 presents the syntax for the imputation of *r\_off* and Table 54 presents the frequency distribution for the perception that officers rape inmates (*r\_off*) after the imputation. Following imputation for the variable *r\_off*, 94% of respondents answered “no” to whether officers rape inmates and 6% answered “yes”.

Table 53. Frequency distribution before missing data imputed: Officers rape inmates (*r\_off*)

		Frequency	Percent	Valid Percent
Valid	0 No	308	75.3	92.5
	1 Yes	25	6.1	7.5
	Total	333	81.4	100.0
Missing	Blank	76	18.6	
Total		409	100.0	

RECODE *r\_off* (-9=0).

Figure 28. Syntax for imputing officers rape inmates (*r\_off*) missing values to 0 “no.”

Table 54. Frequency distribution after missing data imputed: Officers rape inmates (r\_off)

		Frequency	Percent	Valid Percent
Valid	0 No	384	93.9	93.9
	1 Yes	25	6.1	6.1
	Total	409	100.0	100.0

For the variable *r\_snitch*, inmates were asked “is reporting a rape considered snitching?” Table 55 presents the frequency distribution for this variable, indicating that the majority of respondents (59%) believed reporting a rape was considered snitching, while 23% believed that it was not, and 18% constituted missing cases. These cases were then imputed into the response category of (1) “yes,” as this is in keeping with the conceptual direction of the variable. The syntax for the imputation of this variable is indicated in Figure 29 and Table 56 presents the frequency distribution for the perception that reporting a rape is considered snitching (*r\_snitch*) after the imputation. Following imputation for the variable *r\_snitch*, 23% of respondents answered “no” to whether reporting a rape is considered snitching and 77% answered “yes”.

Table 55. Frequency distribution before missing data imputed: Reporting rape considered snitching (r\_snitch)

		Frequency	Percent	Valid Percent
Valid	0 No	93	22.7	27.8
	1 Yes	242	59.2	72.2
	Total	335	81.9	100.0
Missing	Blank	74	18.1	
Total		409	100.0	

RECODE h\_favor (-9=1).

Figure 29. Syntax for imputing reporting rape considered snitching (r\_snitch) missing values to 1 “yes.”

Table 56. Frequency distribution after missing data imputed: Reporting rape considered snitching (r\_snitch)

		Frequency	Percent	Valid Percent
Valid	0 No	93	22.7	22.7
	1 Yes	316	77.3	77.3
	Total	409	100.0	100.0

Demographic characteristics of the sample focused upon age and race. The frequency distribution for age is presented in Table 57, and the frequency distribution for race is presented in Table 58. Age was evenly distributed, with most respondents (66%) falling between ages 25 and 44 ( $M = 34.96$ ,  $SD = 9.07$ ). Only 12% of respondents reported being 24 years of age or younger. With respect to race, 49% of respondents were African-American. Caucasians constituted 38% of the male inmate sample, while 10% of respondents were Hispanic, and only 3% reported as “other.”

Table 57. Age (age)

		Frequency	Percent	Valid Percent
Valid	24 24 or under	47	11.5	11.5
	25 25-29	70	17.1	17.1
	30 30-34	70	17.1	17.1
	35 35-39	64	15.6	15.6
	40 40-44	66	16.1	16.1
	45 45-49	47	11.5	11.5
	50 50-54	30	7.3	7.3
	55 55 or older	15	3.7	3.7
	Total	409	100.0	100.0

Table 58. Race (race)

		Frequency	Percent	Valid Percent
Valid	1 Black	202	49.4	49.4
	2 White	154	37.7	37.7
	3 Hispanic	42	10.3	10.3
	4 Other	11	2.7	2.7
	Total	409	100.0	100.0

Incarceration factors were also included in frequency distributions. Tables 59, 60, 61, and 62 present the frequency distributions for the variables *state\_mo*, *state\_\_b*, *state\_\_a*, and *curr\_c\_b*, respectively. The majority of respondents (58%) reported having been incarcerated for less than 120 months ( $M = .43$ ,  $SD = .50$ ), and 43% reported being in jail for less than 60 months ( $M = .57$ ,  $SD = .50$ ). However, only 3% reported being in prison 6 months or less ( $M = 101.26$ ,



$SD = 93.54$ ). Missing values were not imputed for the variable concerning the inmate's current conviction (*curr\_c\_b*) as only five cases were missing and it is not a necessary variable for risk-assessment scale construction.

Table 59. Frequency Distribution: Total months in state prison (state\_mo)

		Frequency	Percent	Valid Percent
Valid	6 6 or less	14	3.4	3.4
	7 7-12	29	7.1	7.1
	13 13-24	41	10.0	10.0
	25 25-36	25	6.1	6.1
	37 37-48	35	8.6	8.6
	49 49-60	31	7.6	7.6
	61 61-84	28	6.8	6.8
	85 85-120	48	11.7	11.7
	121 121-168	56	13.7	13.7
	169 169-216	30	7.3	7.3
	217 217-276	30	7.3	7.3
	277 277-336	19	4.6	4.6
	337 337 or more	23	5.6	5.6
	Total	409	100.0	100.0

Table 60. Frequency Distribution: Coded state months in state prison (state\_\_b)

		Frequency	Percent	Valid Percent
Valid	0 Less than 120	235	57.5	57.5
	1 120 or more	174	42.5	42.5
	Total	409	100.0	100.0

Table 61. Frequency Distribution: Coded state months in state prison (state\_\_a)

		Frequency	Percent	Valid Percent
Valid	0 60 or less	175	42.8	42.8
	1 More than 60	234	57.2	57.2
	Total	409	100.0	100.0

Table 62. Frequency Distribution: Current conviction: (curr\_c\_b)

		Frequency	Percent	Valid Percent
Valid	1 Violent	288	70.4	71.3
	2 Non-violent	69	16.9	17.1
	3 Drug	47	11.5	11.6
	Total	404	98.8	100.0
Missing	Blank	5	1.2	
	Total	409	100.0	

Mental health factors were also analyzed. Tables 63 and 64 present the frequency distributions for the variables *mh\_st* and *mh\_inst*. Only 28% of respondents were treated for mental health issues prior to entrance to prison, with 59% not treated, and 13% constituting missing cases. However, 31% reported voluntarily requesting mental health treatment within prison. Figure 30 presents the syntax for the imputation of these two variables' missing cases into (0) "no" based on the prior criteria. Tables 65 and 66 present the frequency distributions for these variables after imputation, indicating that 72% had not sought mental health treatment on the street, and 69% had not sought mental health treatment within the institution.

Table 63. Frequency distribution before missing data imputed: Treated for mental health issues on the street (mh\_st)

		Frequency	Percent	Valid Percent
Valid	0 No	242	59.2	67.8
	1 Yes	115	28.1	32.2
	Total	357	87.3	100.0
Missing	Blank	52	12.7	
Total		409	100.0	

Table 64. Frequency distribution before missing data imputed: Voluntarily requested mental health treatment in prison (mh\_inst)

		Frequency	Percent	Valid Percent
Valid	0 No	232	56.7	64.6
	1 Yes	127	31.1	35.4
	Total	359	87.8	100.0
Missing	Blank	50	12.2	
Total		409	100.0	

RECODE mh\_st mh\_inst (-9 = 0)

Figure 30. Syntax for imputing (mh\_st and mh\_inst) missing values to 0 "no."

Table 65. Frequency distribution after missing data imputed: Treated for mental health issues on the street (mh\_st)

		Frequency	Percent	Valid Percent
Valid	0 No	294	71.9	71.9
	1 Yes	115	28.1	28.1
	Total	409	100.0	100.0

Table 66. Frequency distribution after missing data imputed: Voluntarily requested mental health treatment in prison (mh\_inst)

		Frequency	Percent	Valid Percent
Valid	0 No	282	68.9	68.9
	1 Yes	127	31.1	31.1
	Total	409	100.0	100.0

Sexual orientation was also theorized as a significant risk factor for sexual assault. Tables 67 and 68 present the frequency distributions for the variables *sex\_pr\_a* and *samesex*. A large majority (84%) of inmates reported being “straight” as their sexual preference, while 9% reported being bisexual and 8% reported being homosexual. As such, 17% of respondents reported homosexual tendencies. With regards to having an adult or adolescent same-sex experience on the street, 17% of respondents also reported “yes,” 70% responded “no,” and 14% constituted missing cases. Figure 31 presents the syntax for imputation of the variable *samesex*, and Tables 68 and 69 present the frequency distributions for the variable both before and after imputation, respectively. Following imputation of the variable, most respondents (80%) reported not engaging in homosexual activity. It may be that the individuals that answered being homosexual or bisexual also engaged in same-sex experiences on the street.

Table 67. Frequency Distribution: Sexual Preference

		Frequency	Percent	Valid Percent
Valid	1 Straight	342	83.6	83.6
	2 Gay	36	8.8	8.8
	3 Bisexual	31	7.6	7.6
	Total	409	100.0	100.0

Table 68. Frequency distribution before missing data imputed: Adolescent or adult same-sex experience on the street (samesex)

		Frequency	Percent	Valid Percent
Valid	0 No	283	69.2	80.4
	1 Yes	69	16.9	19.6
	Total	352	86.1	100.0
Missing	Blank	57	13.9	
Total		409	100.0	

RECODE samesex (-9 = 0)

*Figure 31.* Syntax for imputing of adolescent or adult same-sex experience on the street (samesex) missing values to 0 “no.”

Table 69. Frequency distribution after missing data imputed : Adolescent or adult same-sex experience on the street (same-sex)

		Frequency	Percent	Valid Percent
Valid	0 No	340	83.1	83.1
	1 Yes	69	16.9	16.9
	Total	409	100.0	100.0

### Scale Construction

Based upon the review of the literature, four risk-assessment scales were constructed. This was done by combining variables pertaining to significant predictors in the areas of sexual victimization, appearance of vulnerability, and staff/institutional protective and risk factors. These scales and their construction are contained in Appendix I. The first scale assessed sexual victimization by using variables pertaining to an inmate's prior sexual victimization and an inmate's knowledge of sexual victimization within the institution. The risk factor "prior sexual victimization" contained the variable *s\_abuse*, while the risk factor "knowledge of sexual victimization within the institution" contained the variables *r\_o\_kill*, *r\_v\_kill*, *r\_suic*, *r\_one*, *r\_group*, *r\_witnes*, and *r\_movie*. These variables were then combined into a Sexual Victimization Index (SV Index) ( $M = 1.72$ ,  $SD = 1.48$ ). The syntax for this scale's computation is presented in Figure 32 and the frequency distribution is presented in Table 70.

```
COMPUTE expect = s_abuse+r_o_kill+r_v_kill+r_suic+
r_one+r_group+r_witnes+r_movie.
```

Figure 32. Syntax for SV Index scale construction.

Table 70. Frequency Distribution: Sexual Victimization Index (SV Index)

		Frequency	Percent	Valid Percent
Valid	.00	83	20.3	20.3
	.50	22	5.4	5.4
	1.00	95	23.2	23.2
	1.50	18	4.4	4.4
	2.00	81	19.8	19.8
	2.50	4	1.0	1.0
	3.00	57	13.9	13.9
	3.50	4	1.0	1.0
	4.00	24	5.9	5.9
	5.00	13	3.2	3.2
	6.00	4	1.0	1.0
	7.00	4	1.0	1.0
	Total	409	100.0	100.0

The second scale assessed appearance of vulnerability by using variables pertaining to an inmate’s fear of sexual assault. The risk factor “fear of sexual assault” contained the variables *r\_entitl*, *r\_retali*, *r\_worry*, *r\_hear*, *r\_folk*, *r\_turn*, and *s\_attrac*. These variables were then combined into an Appearance of Vulnerability Index (AV Index) ( $M = 3.13$ ,  $SD = 1.46$ ). The syntax for this scale’s computation is presented in Figure 33 and the frequency distribution is presented in Table 71.

```
COMPUTE expect = r_entitl+r_retali+r_worry+r_hear+
r_folk+r_turn+s_attrac.
```

Figure 33. Syntax for AV Index scale construction.

Table 71. Frequency Distribution: Appearance of Vulnerability Index (AV Index)

		Frequency	Percent	Valid Percent
Valid	.00	9	2.2	2.2
	.50	5	1.2	1.2
	1.00	32	7.8	7.8
	1.50	20	4.9	4.9
	2.00	63	15.4	15.4
	2.50	23	5.6	5.6
	3.00	90	22.0	22.0
	3.50	28	6.8	6.8
	4.00	52	12.7	12.7
	4.50	15	3.7	3.7
	5.00	44	10.8	10.8
	5.50	7	1.7	1.7
	6.00	18	4.4	4.4
	6.50	1	.2	.2
	7.00	2	.5	.5
	Total	409	100.0	100.0

The third and fourth scales assessed staff and institutional factors that impact risk for prison sexual assault. The third scale pertained to “staff and institutional protective factors” and contained the variables *r\_preve*, *s\_trans*, *s\_pc*, *r\_report*, *r\_talk*, *r\_protec*, *r\_post*, and *s\_preven*. These variables were then combined into a Staff and Institutional Protective Index (SIP Index) ( $M = 2.64$ ,  $SD = 1.31$ ). The syntax for this scale’s computation is presented in Figure 34 and the frequency distribution is presented in Table 72. The fourth scale pertained to “staff and institutional risk factors” and contained the variables *h\_favor*, *r\_play*, *s\_off*, *r\_off*, and *r\_snitch*.



These variables were then combined into a Staff and Institutional Risk Index (SIR Index) ( $M = 2.60$ ,  $SD = 1.15$ ). The syntax for this scale's computation is presented in Figure 35 and the frequency distribution is presented in Table 73.

```
COMPUTE expect = r_preve+s_trans+s_pc+r_report+
r_talk+r_protec+r_post+s_preven.
```

*Figure 34.* Syntax for SIP Index scale construction.

**Table 72.** Frequency Distribution: Staff/Institutional Protective Index (SIP Index)

		Frequency	Percent	Valid Percent
Valid	.00	12	2.9	2.9
	.50	6	1.5	1.5
	1.00	37	9.0	9.0
	1.50	30	7.3	7.3
	2.00	109	26.7	26.7
	2.50	35	8.6	8.6
	3.00	68	16.6	16.6
	3.50	17	4.2	4.2
	4.00	62	15.2	15.2
	4.50	2	.5	.5
	5.00	20	4.9	4.9
	6.00	9	2.2	2.2
	6.50	1	.2	.2
	8.00	1	.2	.2
	Total	409	100.0	100.0

COMPUTE expect = h\_favor+r\_play+s\_off+r\_off+r\_snitch.

Figure 35. Syntax for SIR Index scale construction.

Table 73. Frequency Distribution: Staff/Institutional Risk Index (SIR Index)

	Frequency	Percent	Valid Percent
Valid	.00	20	4.9
	1.00	49	12.0
	2.00	101	24.7
	3.00	157	38.4
	4.00	68	16.6
	5.00	14	3.4
Total	409	100.0	100.0

### *Cronbach's alpha ( $\alpha$ )*

In order to test the reliability of the constructed risk-assessment scales, Cronbach's  $\alpha$  was used. Cronbach's  $\alpha$  is a measure of internal consistency and is the common test used to assess whether there is sufficient interrelation between variables for justification of their combination into an index. Ideally, an alpha level of .7 is accepted as the cut-off for estimating internal consistency (Schmitt, 1996). However, a more lenient alpha level of .6 has been also accepted for items to be considered a reliable scale, and this was the alpha used as a benchmark of acceptability in the present study (Schmitt, 1996).

Reliability was first assessed for the Sexual Victimization Index (SV Index). Figure 36 presents the syntax for testing of SV Index's reliability. Cronbach's  $\alpha$  returned an alpha level of .54 for this scale, which is lower than the .6 benchmark ( $M = 1.72$ ,  $SD = 1.48$ ). Table 74 indicates how the alpha level can be affected if certain items are deleted from the index. The first item, pertaining to whether an inmate had been sexually abused when they were younger (*s\_abuse*), would bring the alpha level up to .57 if deleted. This variable was included because it upheld the risk factor for prior victimization, and its inclusion with other risk factors for knowledge of sexual victimization within the institution was theorized to be useful in identifying an overall risk for sexual victimization. However, even the deletion of this variable will not raise the index to even the most lenient of alpha levels for reliability.

```
RELIABILITY
/VARIABLES =s_abuse r_o_kill r_v_kill r_suic
r_one r_group r_witnes r_movie
/SCALE ('ALL VARIABLES') ALL
/MODEL =ALPHA
/STATISTICS =DESCRIPTIVE SCALE
/SUMMARY =TOTAL MEANS.
```

*Figure 36.* Syntax for SV Index reliability.

Table 74. Cronbach's Alpha: Sexual Victimization Index (SV Index)

	Cronbach's Alpha if Item Deleted
s_abuse	.574
r_o_kill	.528
r_v_kill	.490
r_suic	.458
r_one	.508
r_group	.502
r_witnes	.467
r_movie	.473

The second scale assessed was the Appearance of Vulnerability Index (AV Index). Cronbach's  $\alpha$  returned an extremely low alpha level of .45. Figure 37 presents the syntax for testing of AV Index's reliability. The deletion of any item would not increase the alpha level to an already lenient acceptable alpha of .6, as indicated in Table 75. While the variables included in this index uphold the theoretical construct of appearance of vulnerability, the items may be too multidimensional to work together as a reliable risk-assessment index.

```

RELIABILITY
/VARIABLES =r_entitl r_retali r_worry r_hear
r_folk r_turn s_attrac
/SCALE ('ALL VARIABLES') ALL
/MODEL =ALPHA
/STATISTICS =DESCRIPTIVE SCALE
/SUMMARY =TOTAL MEANS.

```

*Figure 37. Syntax for AV Index reliability.*

Table 75. Cronbach's Alpha: Appearance of Vulnerability Index (AV Index)

	Cronbach's Alpha if Item Deleted
r_entitl	.380
r_retali	.459
r_worry	.381
r_hear	.283
r_folk	.315
r_turn	.426
s_attrac	.331

The Staff and Institutional Protective Index's (SIP Index) reliability was then assessed. Similar to the alpha for the AV Index, Cronbach's  $\alpha$  returned an even lower alpha level of .20. Figure 38 presents the syntax for testing of SIP Index's reliability. Once again, no deletions of items would increase the alpha to an acceptable level, as indicated in Table 76. Multidimensionality may be at play with this index as well, or there may be a theoretical issue with the combination of the variables.

```

RELIABILITY
/VARIABLES = r_preve s_trans s_pc r_report
r_talk r_protec r_post s_preven
/SCALE ('ALL VARIABLES') ALL
/MODEL =ALPHA
/STATISTICS =DESCRIPTIVE SCALE
/SUMMARY =TOTAL MEANS.

```

Figure 38. Syntax for SIP Index reliability.

Table 76. Cronbach's Alpha: Staff/Institutional Protective Index (SIP Index)

	Cronbach's Alpha if Item Deleted
r_preve	.237
s_trans	.168
s_pc	.159
r_report	.163
r_talk	.168
r_protec	.139
r_post	.202
s_preven	.213

The final index analyzed for reliability was the Staff and Institutional Risk Index (SIR Index). While the alpha of .46 did not reach an acceptable level, it approached it much higher than the previous index. Figure 39 presents the syntax for testing of SIR Index's reliability. Once again, no deletions of items would increase the alpha to an acceptable level, as indicated in Table 77. The SIR Index made use of five items, while the SIP Index made use of eight. While the alpha is nowhere near an acceptable level to estimate internal consistency, it may be interesting to assess whether the inclusion of more variables pertaining to staff and institutional theoretical risk factors would increase the alpha to a level approaching acceptable standards.

```

RELIABILITY
/VARIABLES = h_favor r_play s_off r_off r_snitch
/SCALE ('ALL VARIABLES') ALL
/MODEL =ALPHA
/STATISTICS =DESCRIPTIVE SCALE
/SUMMARY =TOTAL MEANS.

```

Figure 39. Syntax for SIR Index reliability.

Table 77. Cronbach's Alpha: Staff/Institutional Risk Index (SIR Index)

	Cronbach's Alpha if Item Deleted
h_favor	.393
r_play	.420
s_off	.335
r_off	.444
r_snitch	.409

### *Exploratory Factor Analysis (EFA)*

Following the assessment of index reliability using Cronbach's  $\alpha$ , Exploratory Factor Analyses (EFA) were conducted to test the relation of the variables to one another. Using the maximum likelihood (ML) factor analysis extraction method, reliability of the inclusion of variables in the indices can be assessed. Maximum likelihood (ML) extraction was conducted on all of the included variables and the separate indices in an attempt to assess which variables work best together. The Kaiser criterion was used for dropping factors from analysis. This criterion specifies that factors with eigenvalues, or the variance in all the variables accounted for by that factor, less than 1.0 should be dropped (Costello & Osborne, 2005). The Scree plot of the eigenvalues was then used to further assess factor retention. Costello & Osborne (2005) explain that "the scree test involves examining the graph of the eigenvalues...and looking for the natural bend or break point in the data where the curve flattens out" (p. 3). Prior to interpretation of the factor loadings, Maximum Likelihood (ML) extraction was repeated, yet limited to the number of factors identified in the scree test. Orthogonal (varimax) rotation was then used, as this rotation minimizes the complexity of factors by maximizing the variance of loading on each

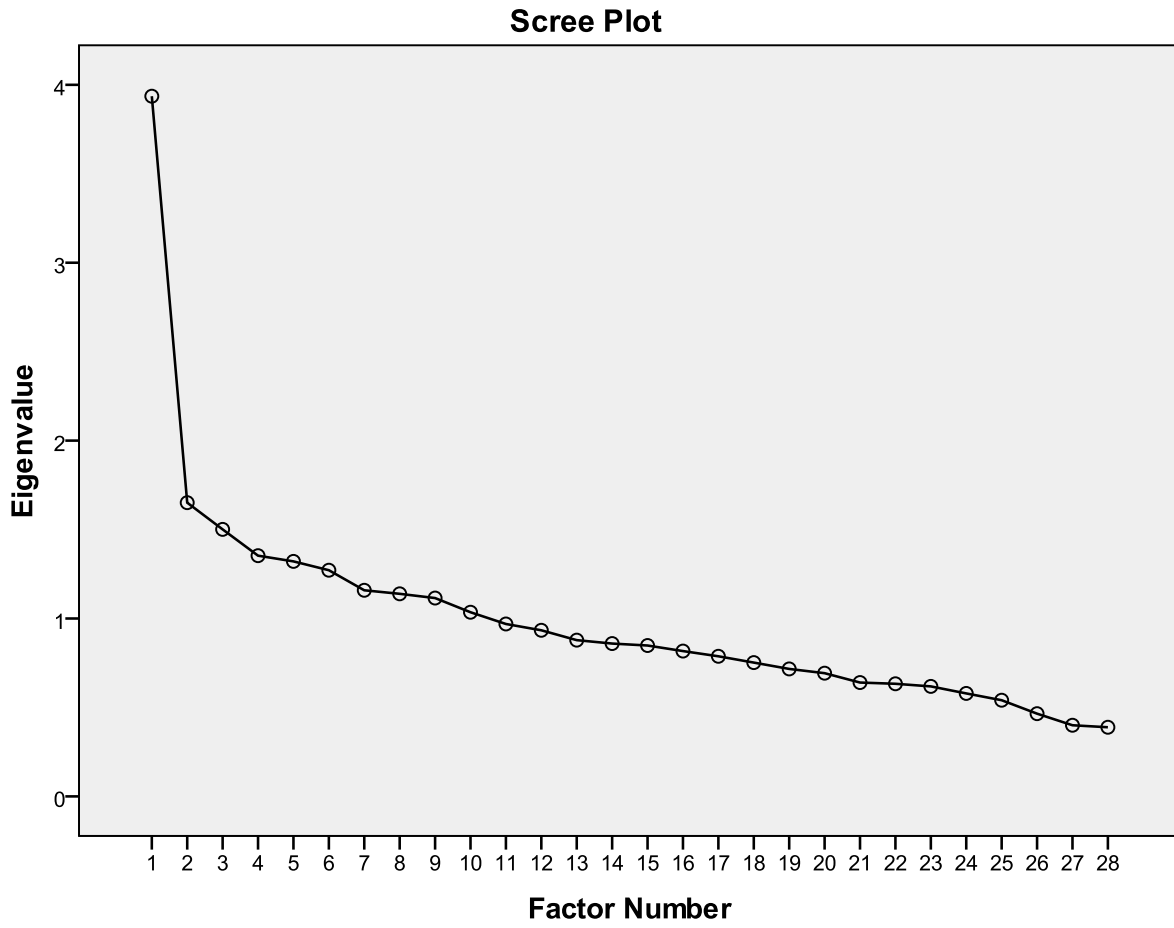
factor. For exploratory purposes, the lower factor loading level of .4 was used (Costello & Osborne, 2005).

Maximum likelihood (ML) extraction was first conducted upon all of the included variables. Using the Kaiser criterion, ten factors were produced. Table 78 expresses the eigenvalues for all of the included variables. The Scree plot of the eigenvalues, indicated in Figure 40, identified that two factors should be retained. Maximum Likelihood (ML) extraction was then repeated, limited to two factors. Using varimax rotation, expressed in Table 79, variables above the .4 cutoff included *r\_report* (0.66), *r\_play* (0.53), *r\_talk* (0.51), *r\_suic* (0.50), *r\_hear* (0.46), and *r\_movie* (0.43) in the first factor, and *s\_off* (0.65) in the second factor. The variables included in the first factor are of significant importance because these variables' strong loadings (above .50 for all but two) indicate a solid factor, while the single loading variable in the second factor indicates an unstable factor (Costello & Osborne, 2005).



Table 78. Eigenvalues for all included variables.

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	3.94	14.06	14.06
2	1.65	5.90	19.95
3	1.50	5.36	25.31
4	1.35	4.83	30.15
5	1.32	4.72	34.87
6	1.27	4.54	39.41
7	1.16	4.14	43.54
8	1.14	4.07	47.61
9	1.11	3.98	51.59
10	1.04	3.70	55.29
11	0.97	3.46	58.75
12	0.93	3.33	62.09
13	0.88	3.14	65.22
14	0.86	3.07	68.29
15	0.85	3.03	71.32
16	0.82	2.92	74.24
17	0.79	2.81	77.05
18	0.75	2.69	79.74
19	0.72	2.56	82.30
20	0.69	2.47	84.77
21	0.64	2.29	87.06
22	0.63	2.26	89.32
23	0.62	2.21	91.52
24	0.58	2.07	93.59
25	0.54	1.93	95.52
26	0.47	1.66	97.18
27	0.40	1.43	98.61
28	0.39	1.39	100.00



*Figure 40.* Scree Plot of Eigenvalues for all included variables.

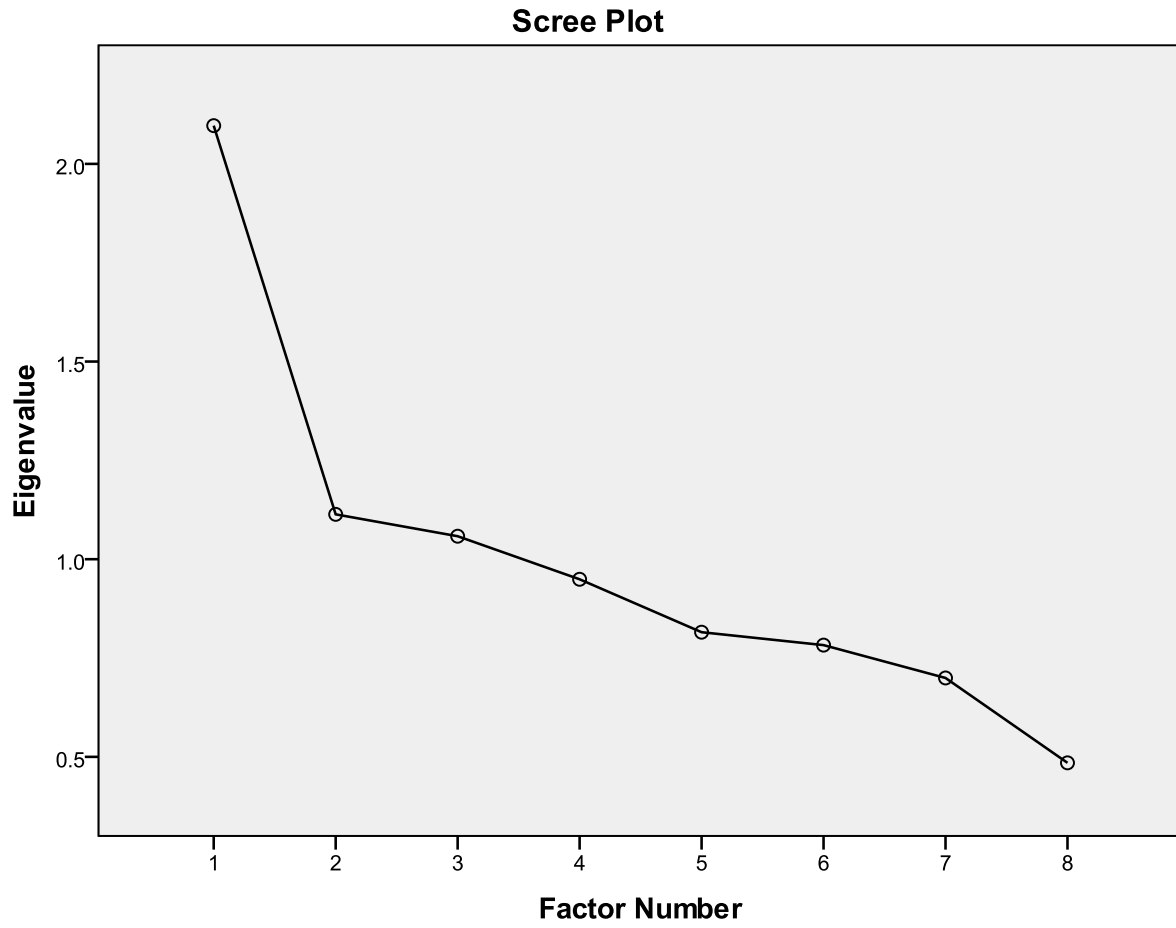
Table 79. Rotated Factor Analysis for all included variables.

	Factor	
	1	2
r_report	<b>0.66</b>	0.01
r_play	<b>0.53</b>	0.06
r_talk	<b>0.51</b>	0.07
r_suic	<b>0.50</b>	0.09
r_hear	<b>0.46</b>	0.37
r_movie	<b>0.43</b>	0.09
s_off	0.26	<b>0.65</b>
s_abuse	0.00	0.14
r_o_kill	0.32	0.14
r_v_kill	0.29	0.11
r_one	0.25	0.28
r_group	0.31	0.11
r_witnes	0.38	0.19
r_entitl	0.20	0.14
r_retali	0.02	0.03
r_worry	0.27	0.16
r_folk	0.22	0.35
r_turn	0.15	0.04
s_attrac	0.30	0.39
r_preve	-0.14	0.09
s_trans	0.03	-0.18
s_pc	0.05	-0.01
r_protec	0.07	-0.20
r_post	0.19	-0.11
s_preven	-0.10	0.02
h_favor	0.13	0.22
r_off	0.24	0.12
r_snitch	0.00	0.39

Second, the Sexual Victimization Index (SV Index) was analyzed using maximum likelihood extraction. Using the Kaiser criterion, three factors were produced, indicated in Table 80. The Scree plot in Figure 41, however, indicated that two factors should be retained for analysis. Maximum Likelihood (ML) extraction was then repeated, limited to two factors. Using varimax rotation, expressed in Table 81, variables above the .4 cutoff included *r\_movie* (1.00) and *r\_witnes* (0.48) in the first factor; and *r\_suic* (0.53) in the second factor. Because of so few variables loading on each factor, neither factor can be considered solid.

Table 80. Eigenvalues for Sexual Victimization Index (SV Index).

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.10	26.21	26.21
2	1.11	13.92	40.13
3	1.06	13.23	53.35
4	0.95	11.87	65.22
5	0.82	10.19	75.41
6	0.78	9.78	85.19
7	0.70	8.74	93.94
8	0.48	6.06	100.00



*Figure 41.* Scree Plot of Eigenvalues for Sexual Victimization Index (SV Index).

Table 81. Rotated Factor Analysis for Sexual Victimization Index (SV Index).

	Factor	
	1	2
r_movie	<b>1.00</b>	0.02
r_witnes	<b>0.48</b>	0.20
r_suic	0.23	<b>0.53</b>
s_abuse	-0.02	0.09
r_o_kill	0.04	0.36
r_v_kill	0.22	0.39
r_one	0.12	0.32
r_group	0.14	0.29

The same maximum likelihood extraction was then conducted upon the Appearance of Vulnerability Index (AV Index). The eigenvalues are expressed in Table 82 indicate that using the Kaiser criterion, only two factors were produced. The scree plot in Figure 42 likewise indicates that two factors should be retained for analysis. Maximum Likelihood (ML) extraction was then repeated, limited to two factors. The varimax rotation, expressed in Table 83, however, did not produce very solid factors. The first factor only included the variables above the .4 cutoff of *s\_attrac* (0.53) and *r\_hear* (0.41), which was cross-loaded on the second factor as well (*r\_hear* = 0.45).

Table 82. Eigenvalues for Appearance of Vulnerability Index (AV Index).

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	1.67	23.89	23.89
2	1.12	16.03	39.92
3	0.95	13.62	53.55
4	0.95	13.60	67.14
5	0.86	12.29	79.43
6	0.77	11.04	90.47
7	0.67	9.53	100.00

Scree Plot

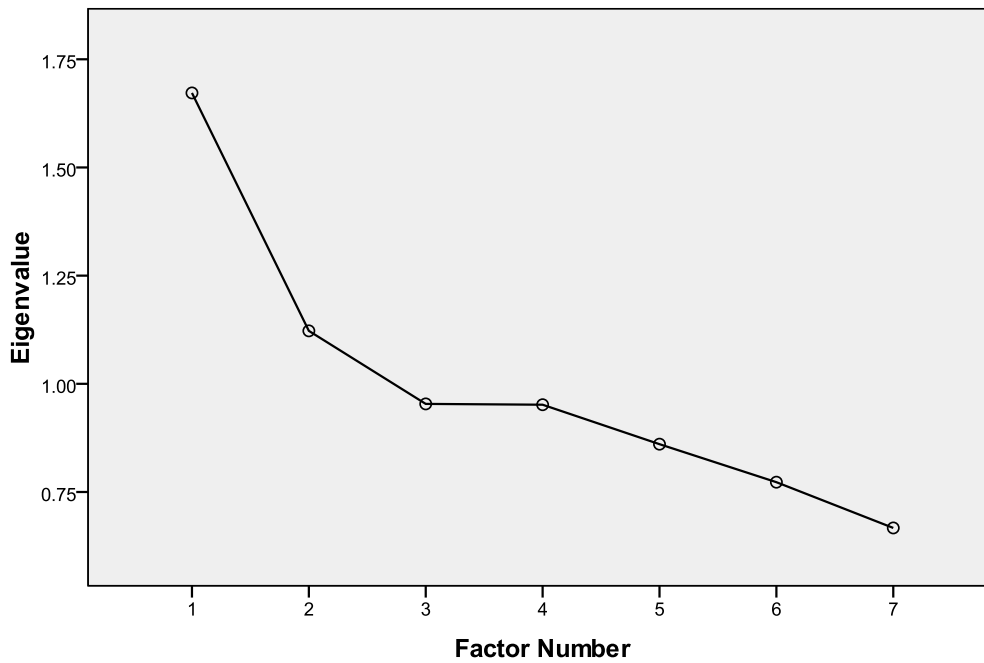


Figure 42. Scree Plot of Eigenvalues for Appearance of Vulnerability Index (AV Index).

Table 83. Rotated Factor Analysis for Appearance of Vulnerability Index (AV Index).

	Factor	
	1	2
s_attrac	<b>0.53</b>	0.10
r_hear	<b>0.41</b>	<b>0.45</b>
r_entitl	0.28	0.02
r_re tali	0.14	-0.11
r_worry	0.14	0.31
r_folk	0.38	0.12
r_turn	-0.02	0.33

Next, maximum likelihood extraction was conducted upon the Staff/Institutional Protective Index (SIP Index). Table 84 indicates the eigenvalues and that the Kaiser criterion suggests three factors were produced. The scree plot in Figure 43 suggests retaining only two factors, however. Maximum Likelihood (ML) extraction was then repeated, limited to two factors. The varimax rotation, expressed in Table 85, did not reveal any solid factors. Variables above the .4 cutoff were only *r\_report* (1.00) in the first factor, and *r\_preve* (0.63) and *s\_preven* (0.41) in the second factor.



Table 84. Eigenvalues for Staff/Institutional Protective Index (SIP Index).

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	1.60	20.04	20.04
2	1.27	15.86	35.90
3	1.13	14.07	49.97
4	0.98	12.30	62.27
5	0.86	10.76	73.03
6	0.81	10.16	83.19
7	0.74	9.21	92.41
8	0.61	7.59	100.00

Scree Plot

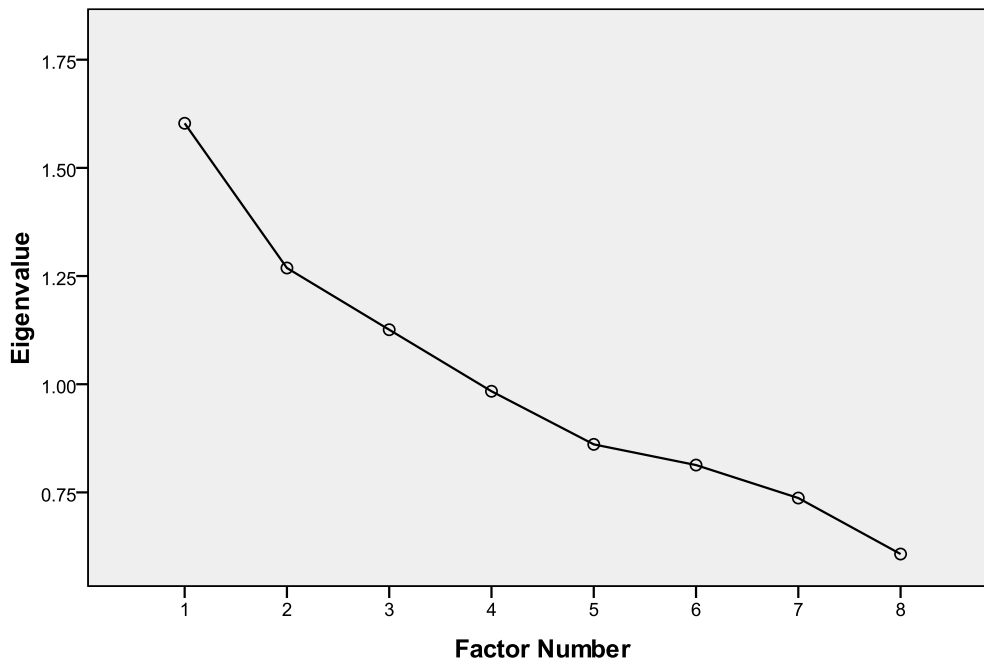


Figure 43. Scree Plot of Eigenvalues for Staff/Institutional Protective Index (SIP Index).

Table 85. Rotated Factor Analysis for Staff/Institutional Protective Index (SIP Index).

	Factor	
	1	2
r_report	<b>1.00</b>	-0.07
r_preve	-0.05	<b>0.63</b>
s_preven	-0.07	<b>0.41</b>
r_protec	-0.03	-0.01
s_trans	0.01	-0.04
s_pc	0.06	0.05
r_talk	0.34	-0.16
r_post	0.12	-0.22

The last constructed index, Staff/Institutional Risk Index (SIR Index), was then analyzed using maximum likelihood extraction. Using the Kaiser criterion, two factors were produced. Table 86 expresses the eigenvalues for SIR Index. The Scree plot of the eigenvalues, indicated in Figure 44, also identified that two factors should be retained. Maximum Likelihood (ML) extraction was then repeated, limited to two factors. Using varimax rotation, expressed in Table 87, variables above the .4 cutoff included *s\_off* (0.58) and *r\_snitch* (0.46) in the first factor, and *r\_play* (0.48) in the second factor. Once again, because less than three variables loaded on each, the factors are assumed to be weak or unstable.

Table 86. Eigenvalues for Staff/Institutional Risk Index (SIR Index).

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	1.59	31.81	31.81
2	1.05	21.01	52.82
3	0.85	17.01	69.82
4	0.80	16.04	85.87
5	0.71	14.13	100.00

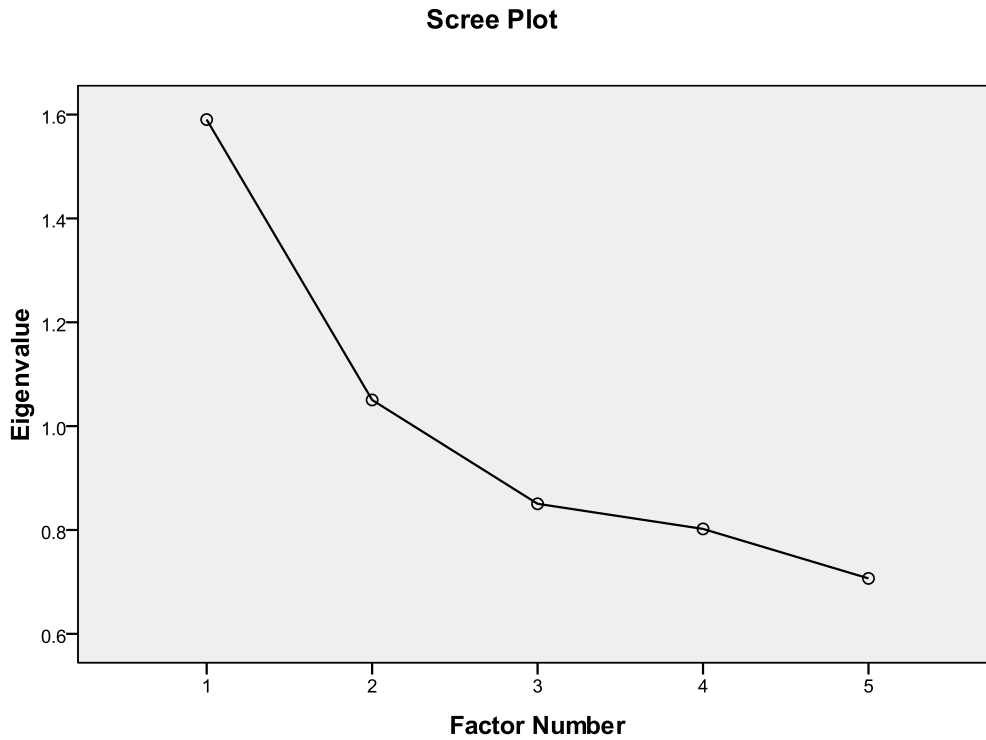


Figure 44. Scree Plot of Eigenvalues for Staff/Institutional Risk Index (SIR Index).

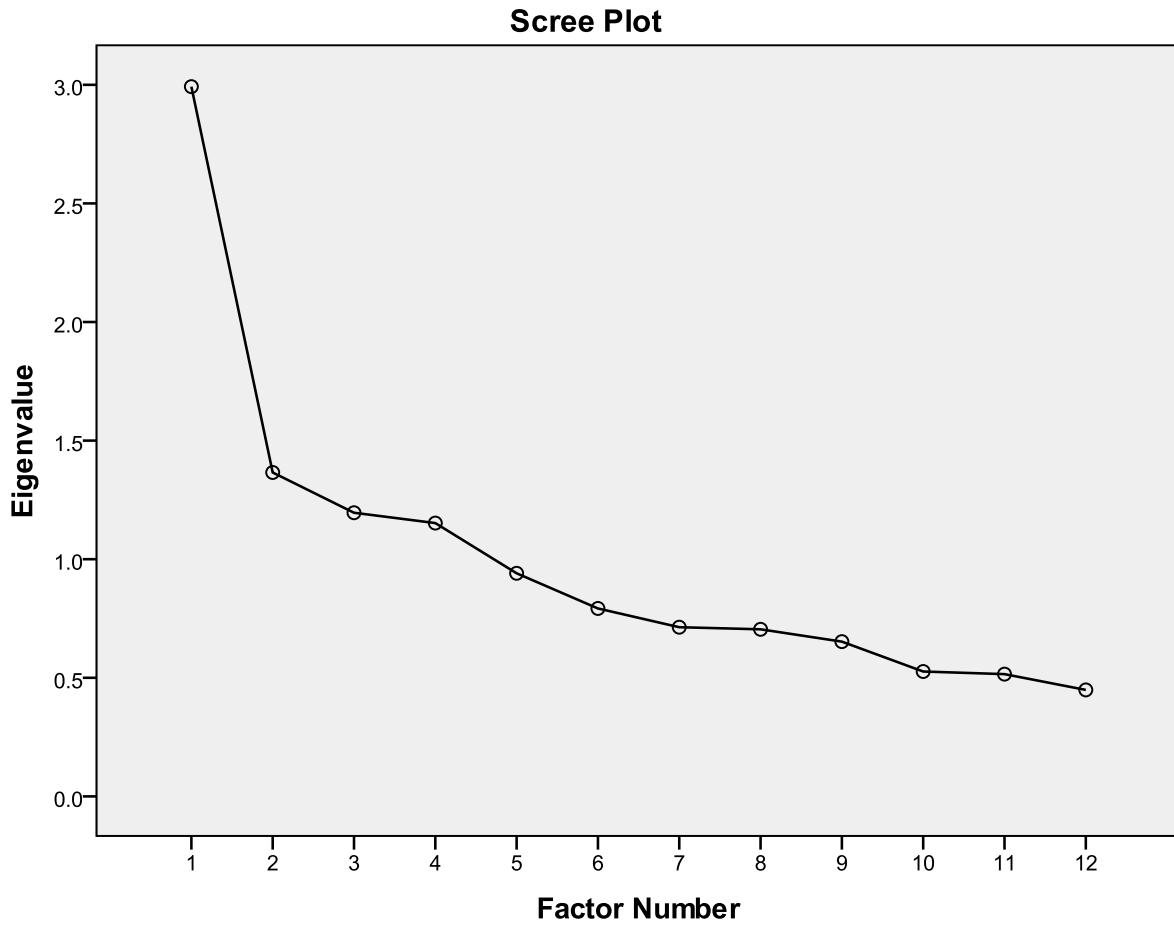
Table 87. Rotated Factor Analysis for Staff/Institutional Risk Index (SIR Index).

	Factor	
	1	2
s_off	<b>0.58</b>	0.19
r_snitch	<b>0.46</b>	0.04
r_play	0.12	<b>0.48</b>
h_favor	0.27	0.26
r_off	0.06	0.38

Following the maximum likelihood extraction upon all variables and the constructed indices, variables that did not load upon any factors were then removed from the analysis. Maximum likelihood extraction was performed again on the variables *r\_suic*, *s\_off*, *r\_hear*, *s\_attrac*, *r\_witnes*, *r\_movie*, *r\_report*, *r\_play*, *r\_talk*, *s\_preven*, *r\_snitch*, and *r\_preve*. Using the Kaiser criterion, four factors were produced. Table 88 expresses the eigenvalues for all of the interrelated variables. The Scree plot of the eigenvalues, indicated in Figure 45, identified that two factors should be retained. Maximum Likelihood (ML) extraction was then repeated, limited to two factors. Using varimax rotation, expressed in Table 89, variables above the .4 cutoff included *r\_report* (0.62), *r\_talk* (0.54), *r\_play* (0.52), *r\_movie* (0.48), *r\_suic* (0.43), *r\_hear* (0.41), and *r\_witnes* (0.40) in the first factor; and *s\_off* (0.84) in the second factor. Once again the variables included in the first factor are of significant importance because these variables' strong loadings (seven variables with three loading above .50) indicate a solid factor, while the variable loadings in the second factor, including the cross-loading of *r\_hear* (0.40 in the second factor) indicate a very weak factor.

Table 88. Eigenvalues for interrelated variables.

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.99	24.94	24.94
2	1.37	11.38	36.32
3	1.20	9.97	46.28
4	1.15	9.60	55.88
5	0.94	7.84	63.72
6	0.79	6.60	70.32
7	0.71	5.94	76.27
8	0.70	5.87	82.14
9	0.65	5.44	87.58
10	0.53	4.39	91.96
11	0.52	4.30	96.26
12	0.45	3.74	100.00



*Figure 45.* Scree Plot of Eigenvalues for interrelated variables.

Table 89. Rotated Factor Analysis for interrelated variables.

	Factor	
	1	2
r_report	<b>0.62</b>	0.14
r_talk	<b>0.54</b>	0.14
r_play	<b>0.52</b>	0.11
r_movie	<b>0.48</b>	0.08
r_suic	<b>0.43</b>	0.17
r_hear	<b>0.41</b>	<b>0.40</b>
r_witnes	<b>0.40</b>	0.14
s_off	0.11	<b>0.84</b>
s_attrac	0.29	0.37
s_preven	-0.08	-0.03
r_snitch	0.00	0.32
r_preve	-0.13	0.03

From these results, one more index was constructed. This index and its construction are included in Appendix III. In keeping with the prior justification for the variables' inclusion in the Sexual Victimization Index (SV Index), Staff/Institutional Protective Index (SIP Index), and Staff/Institutional Risk Index (SIR Risk), the variables *r\_report*, *r\_talk*, *r\_play*, *r\_movie*, *r\_suic*, *r\_hear*, and *r\_witnes* were added together to create a Risk for Sexual Victimization Index (RSV Index) ( $M = 1.83$ ,  $SD = 1.75$ ). Cronbach's  $\alpha$  was used to measure internal consistency. Surprisingly, Cronbach's  $\alpha$  reported an alpha level of .71, above both the lenient alpha benchmark of .6 and the widely-accepted cut-off of .7. This result is extremely significant in that with only seven items, a reliable scale was able to be created. Figure 46 presents the syntax for the scale construction, while Figure 47 presents the syntax for reliability, and Table 90 indicates that the alpha level would not be raised any higher by the deletion of any items. Table 91 presents the frequency distributions for this index.

```
COMPUTE expect = r_report + r_talk + r_play + r_movie + r_suic +
r_hear + r_witnes.
```

*Figure 46.* Syntax for RSV Index scale construction.

```
RELIABILITY
/VARIABLES =r_report r_talk r_play r_movie r_suic r_hear r_witnes
/SCALE ('ALL VARIABLES') ALL
/MODEL =ALPHA
/STATISTICS =DESCRIPTIVE SCALE
/SUMMARY =TOTAL MEANS.
```

*Figure 47.* Syntax for RSV Index reliability.

Table 90. Cronbach's Alpha: Risk for Sexual Victimization Index (RSV Index).

	Cronbach's Alpha if Item Deleted
r_suic	.685
r_hear	.682
r_witnes	.692
r_movie	.681
r_report	.657
r_play	.680
r_talk	.673



Table 91. Frequency Distribution: Risk for Sexual Victimization Index (KSVI Index).

		Frequency	Percent	Valid Percent
Valid	.00	103	25.2	25.2
	.50	24	5.9	5.9
	1.00	90	22.0	22.0
	1.50	12	2.9	2.9
	2.00	39	9.5	9.5
	2.50	9	2.2	2.2
	3.00	53	13.0	13.0
	3.50	7	1.7	1.7
	4.00	34	8.3	8.3
	4.50	1	.2	.2
	5.00	22	5.4	5.4
	6.00	10	2.4	2.4
	7.00	5	1.2	1.2
	Total	409	100.0	100.0

Following the maximum likelihood (ML) extraction for all variables, the constructed indices, and the resulting interrelated variables, principal axis factoring (PAF) was then conducted upon the same sets. The PAF analysis provided similar results as the ML analysis. The factor loadings on the first two factors were typically the same for each set of variables, except where *r\_witnes* and *s\_off* loaded on the first factor for the PAF of all variables; *r\_v\_kill* loaded on the second factor for the Sexual Victimization Index (SV Index); *r\_folk* loaded on the first factor in the Appearance of Vulnerability Index (AV Index); and *r\_talk* loaded on the first factor for the Staff/Institutional Protective Index (SIP Index). Most important, for the resulting constructed Risk for Sexual Victimization Index (RSV Index), the varimax rotation of the interrelated variables from which the index was created was almost very similar for both the ML

and PAF analyses. For the ML analysis, the first factor contained the variables, *r\_report* (0.62), *r\_talk* (0.54), *r\_play* (0.52), *r\_movie* (0.48), *r\_suic* (0.43), *r\_hear* (0.41), and *r\_witnes* (0.40). For the PAF, the first factor contained the variables, *r\_report* (0.61), *r\_talk* (0.50), *r\_movie* (0.49), *r\_play* (0.46), *r\_suic* (0.43), and *r\_witnes* (0.41). The second factor for the ML and PAF analyses both shared the variable *s\_off* (ML = 0.84, PAF = 0.71), but the PAF also contained the variables *r\_hear* (0.44), and *s\_attrac* (0.43). Because there were no severe discrepancies, the resulting indices still stand as reliable measures for sexual victimization.

### *Construct Validation*

The constructed risk-assessment index, Risk for Sexual Victimization Index (RSV Index), was then tested for construct validity. An assessment of construct validity is important because it reports the extent to which the underlying theoretical constructs are being met in the constructed scales. For the scale to be construct validated, Pearson's Product Moment Correlation Coefficient (Pearson's *r*) and Spearman's rho correlations were conducted. These correlations were tested against the hypotheses (1) risk for sexual victimization is inversely related to age (RSV Index correlated with *age*), and (2) risk for sexual victimization is inversely related to total time within an institution (RSV Index correlated with *state\_mo*, RSV Index correlated with *state\_\_b*, RSV Index correlated with *state\_\_a*). Figure 48 presents the syntax for the Pearson's *r* correlations and Figure 51 presents the syntax for the Spearman's rho correlations.

```
CORRELATIONS
/VARIABLES= RSVindex age
state_mo state__b state__a
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE.
```

*Figure 48.* Syntax for Pearson's  $r$  correlations.

```
NONPAR CORR
/VARIABLES= RSVindex age
state_mo state__b state__a
/PRINT=SPEARMAN TWOTAIL NOSIG
/MISSING=PAIRWISE.
```

*Figure 49.* Syntax for Spearman's rho correlations.

Concerning Hypothesis 1, the relationship between the Risk for Sexual Victimization Index (RSV Index) and *age* was found to be significant at the .05 level. However, this relationship was found to be very weak, with a Pearson's  $r$  coefficient of .12 and a Spearman's rho coefficient of .11. While the relationship was found to be significant, the variables used in the construction of the index were dichotomous, and thus not normally distributed. Because normal distribution is an underlying assumption for correlations, this may cause error to enter into the validation. Furthermore, the hypothesis was focusing on an inverse relationship. It may be that older inmates have more knowledge of sexual assault in the institution, and thus are more likely to report that instances occur. While this relationship is not what the hypothesis sought to assess, this explanation appears to make sense.

With Hypothesis 2, three relationships were analyzed. For the first relationship between RSV Index and *state\_mo*, both Pearson's  $r$  and Spearman's rho reported significant relationships at the .01 level with low correlation coefficients of .38 and .41, respectively. For RSV Index and

*state\_\_b*, both analyses reported significance at the .01 level, also, with a low Pearson's *r* coefficient of .35 and a low Spearman's rho coefficient of .36. In regards to RSV Index and *state\_\_a*, Pearson's *r* revealed a low coefficient of .37 with significance at the .01 level, and Spearman's rho indicated a similarly low coefficient of .39 with significance at the .01 level. Based upon this analysis, it does not appear that the hypothesis was substantively validated. Similar to the issue with age, it would seem to follow that those inmates that have been in the institution longer would have more knowledge of sexual assault incidents. While inmates that have been in the institution for a less amount of time may be more likely to be victimized, those that have been in prison longer may have more knowledge of the events. However, while these are very weak relationships between the scale and the identified variables, the scale may be argued to have construct validity.

## CHAPTER 5

### DISCUSSION

The results of this study indicate that reliable and valid indices may be built off of a qualitative dataset. However, there is only evidence for construct validity. While Cronbach's  $\alpha$  returned a more than high enough alpha level of .71 for the created Risk for Sexual Victimization Index (RSV Index), the correlations used in the construct validation were generally weak. However, despite the low number of items for this index, the strength and number of the factor loadings suggest a solid index. As discussed in the previous chapter, one issue may be that the newly constructed reliable index actually assesses the knowledge and/or perception that sexual victimization occurs within the prison, rather than the risk for this occurrence. If so, then this scale can still be of some use in analyzing rape within an institution. The main issue would be in substantively validating this scale against another dataset. However, if this study were to be repeated with a look toward creating indices of knowledge and perception, the hypotheses used in the construct validation would appear much differently. In this case, it would make more sense that older inmates that have been in the institution longer would have more knowledge about sexual assault victimization than recently admitted, younger inmates.

Most exciting for this research, is that a reliable scale can be easily used within institutions to assess awareness of sexual assault within prison, and to assess risk for sexual assault victimization. While the Risk for Sexual Victimization Index (RSV Index) may focus more upon knowledge that victimization is occurring, rather than risk for victimization itself, the

scale is both reliable and valid with the use of only seven questions. Of the theoretical and constructed scales, the RSV Index provides the most potential for easy assessment of sexual victimization amongst prison inmates.

As the theoretical and constructed scales are now designed, they may be able to be of some use to other researchers in conducting qualitative research. By structuring their own questions to align with these identified scales, researchers may be able to gain a better idea of the extent to which sexual assault occurs within the respective facility they are researching. Furthermore, these scales draw attention to a tangible problem within prison. If these scales can be revisited and validated appropriately, they can be used to gain clear evidence to support prison reform in reclassification of inmates into more protective housing, so that their punishment is contained solely to the loss of their freedom, not to their right to live. Proper classification and segregation of those at risk for victimization has been acknowledged as a simple and effective way to better protect inmates (Hensley, Koscheski, & Tewksbury, 2005; Hensley, Tewksbury, & Castle, 2003; Man & Cronan, 2001; Wolf, Shi, Blitz, & Siegel, 2007). As Wolff and associates (2007) state, “action is required by prison officials and researchers to reliably identify those at elevated risk, to develop reliable placement strategies that minimize the proximity of inmates who have predatory tendencies...” (p. 554). Whether or not these constructed scales accurately assess risk for sexual assault, they may still be used in helping to alleviate inmates from this problem.

There are a number of limitations in this study. Perhaps the usage of dichotomous variables in attempting to create a risk-assessment scale contributed to a lack of reliability and validity. First, the correlations may be attenuated, as these depend upon a normal distribution that is impossible with dichotomous variables. Furthermore, while two clear categories with

which to define situations are helpful in identifying either “yes, they do occur,” or “no, they do not,” perhaps risk is better assessed with more response categories. With three or more categories in each variable, the questions could be shifted from “does this occur?” to a more open, “how often does this event occur?” Therefore, it may be that each of the scales created for this study may benefit from more exhaustive response categories, not only for better responses, but for better statistical significance. In keeping with the discussion of dichotomous variables, further issues may have risen from the imputation strategy used in this study. While the study sought to err on the side of caution in imputing missing values of variables, this study inadvertently transformed certain variables from dichotomous to ordinal. This issue may have had some impact upon the reliability and validity of the index. Further studies may wish to use more exhaustive strategies, such as Maximum Likelihood or multiple imputation techniques to assess any potential discrepancies. Certainly, future research would do well to further explore these issues.

One of the major limitations with this study, however, was the lack of another dataset with which to test all of the created scales. Reliability and validity were able to be assessed, but the presence of another dataset would have given much more insight as to how well these scales actually work in assessment of risk for sexual assault victimization. If the study were to be conducted again, a separate dataset would have been collected with which to properly assess the constructed scales. However, this identified limitation provides fertile ground for further studies to build off of this research and test whether or not these scales are of any worth in assessment of risk. Even if these scales are invalidated, they will still have brought attention to the issue of sexual assault victimization in prison, and added to the discussion of better inmate classification strategies.

## CHAPTER 6

### CONCLUSION

This research sought to create risk-assessment scales for sexual assault victimization within prisons through the usage of a qualitative dataset. A reliable and construct valid scale was created for risk for sexual victimization, and contained potential for further research. With a theoretical perspective of deprivation and importation with respect to the prison system, it is evident that prison sexual assault is a complex issue with many protective and risk factors. These factors extend from the demographic, behavioral, incarceration and conviction characteristics of the inmates, to even the staff and institutional factors that are outside the inmate's realm of control.

The main limitation with this research is the lack of another dataset with which to accurately assess the reliability and validity of the constructed risk-assessment scales. This limitation, however, provides fertile ground for further research in the creation and validation of proper risk-assessment tools for better inmate classification. The use of dichotomous variables and missing value imputation may have also contributed to problems in assessment of reliability and validity.

Overall, this research served to draw attention to the complexities in assessment of the risk and protective factors for inmate sexual assault victimization, and how the issue of classification is of paramount importance to the inmate's safety. Whether or not the created scales help in accurate assessment of risk for sexual assault victimization, this research clearly



identifies easily identifiable risk factors that can aid staff in their current classification systems. The problem of sexual assault in the prison system is not likely to be solved readily. However, with proper attention and classification, perhaps inmates at the greatest risk for victimization can be given a better chance to protect themselves.

## REFERENCES

- Bell, C., Coven, M., Cronan, J.P., Garza, C.A., Guggemos, J., & Storto, L. (1999). Rape and sexual misconduct in the prison system: Analyzing America's most "open" secret. *Yale Law & Policy Review*, 18(1), 195-223.
- Chonco, N.R. (1989). Sexual assaults among male inmates: A descriptive study. *The Prison Journal*, 69, 72-82.
- Costello, A.B., & Osborne, J. (2005) Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment Research & Evaluation*, 10(7), 1-9.
- DeCoster, J. (2005). *Scale Construction Notes*. Retrieved March 11, 2010 from <http://www.stat-help.com/notes.html>
- Dumond, R.W. (1992). The sexual assault of male inmates in incarcerated settings. *The International Journal of the Sociology of Law*, 20(2), 135-157.
- Dumond, R.W. (2001). Inmate sexual assault: The plague that persists. *The Prison Journal*, 80(4), 407-414.
- Dumond, R.W. (2003). Confronting America's most ignored crime problem: The Prison Rape Elimination Act of 2003. *Journal of the American Academy of Psychiatry and the Law*, 31, 354-360.
- Eigenberg, H.M. (2000). Correctional officers' definitions of rape in male prisons. *Journal of Criminal Justice*, 28, 435-449.
- English, K. & Heil, P. (2005). Prison rape: What we know today. *Corrections Compendium*, 30(5), 1-5, 42-44.
- Fleisher, M.S. (1989). *Warehousing violence*. Newbury Park, CA: Sage.
- Fleisher, M.S., & Kreinert, J.L. (2006). *Ethno-methodological study of the subculture of prison inmate sexuality in the United States, 2004-2005*. Washington, D.C., National Institute of Justice.
- Fleisher, M.S., & Kreinert, J.L. (2006a). *The culture of prison sexual violence*. Washington, D.C., National Institute of Justice.

- Fox-Wasylyshyn, S.M., & El-Masri, M. M. (2005). Handling missing data in self-report measures. *Research in Nursing & Health*, 28, 488-495.
- Gaes, G.G & Goldberg, A.L. (2004). *Prison rape: A critical review of the literature*. National Institute of Justice, Washington, D.C.
- Hensley, C., Koscheski, M., & Tewksbury, R. (2005). Examining the characteristics of male sexual assault targets in a southern maximum-security prison. *Journal of Interpersonal Violence*, 20(6), 667-679.
- Hensley, C., Tewksbury, R., & Castle, T. (2003). Characteristics of prison sexual assault targets in male Oklahoma correctional facilities. *Journal of Interpersonal Violence*, 18(6), 595-606.
- Knowles, G.J. (1999). Male prison rape: A search for causation and prevention. *The Howard Journal*, 38(3), 267-282.
- Man, C.D., & Cronan, J.P. (2001). The prison subculture of masculinity as a backdrop for deliberate indifference. *The Journal of Criminal Law & Criminology*, 92(1), 127-185.
- O'Donnell, I. (2004). Prison rape in context. *The British Journal of Criminology*, 44(2), 241-255.
- Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment*, 8(4), 350-353.
- Sisco, M.M., & Becker, J.V. (2007). Beyond predicting the risk of sexual victimization in prison – considering inmate options and reporting avenues for addressing an inherent problem. *Criminology and Public Policy*, 6(3), 573-584.
- Struckman-Johnson, C., Struckman-Johnson, D., Rucker, L., Bumby, K., & Donaldson, S. (1996). Sexual coercion reported by men and women in prison. *The Journal of Sex Research*, 33(1), 67-76.
- Tabachnick, B.G, & Fidell, L.S. (2001). *Using Multivariate Statistics*. Boston: Allyn and Bacon.
- Tewksbury, R. (1989). Fear of sexual assault in prison inmates. *The Prison Journal*, 69, 62-71.
- Wolff, N., Blitz, C.L., & Shi, J. (2007). Rates of sexual victimization in prison for inmates with and without mental disorders. *Psychiatric Services*, 58(8), 1087-1094.
- Wolff, N., Shi, J., Blitz, C.L., & Siegel, J. (2007). Understanding sexual victimization inside prisons: Factors that predict risk. *Criminology and Public Policy*, 6(3), 535-564.
- Wolff, N., Shi, J., & Siegel, J. (2009). Understanding physical victimization inside prisons: Factors that predict risk. *Justice Quarterly*, 26(3), 445-473.

## APPENDIX

Appendix I.

*Study Predictors: Prior Investigations and Current Study Measures, Coding, and Descriptive Statistics*

Predictors (Extant Research)	Variable Name (Measure)	Coding	% (Yes)
<i>Sexual Victimization</i> (Tewksbury, 1989; Dumond, 2000; Man & Cronan, 2001; Wolff et al., 2007):			
Prior sexual victimization	<i>s_abuse</i> (sexually abused by adult, relative, friend, or someone you trusted)	0 (no), 1 (yes)	17.8
Knowledge of sexual victimization in institution	<i>r_o_kill</i> (known a rapist who was killed)	<i>r_o_kill</i> : 0 (no), 1 (yes)	14.9
	<i>r_v_kill</i> (known rape victim who was killed)	<i>r_v_kill</i> : 0 (no), 1 (yes)	6.4
	<i>r_suic</i> (known rape victim who committed suicide)	<i>r_suic</i> : 0 (no), 1 (yes)	15.6
	<i>r_one</i> (perceived prevalence of one-on-one rape)	<i>r_one</i> : 0 (no), 1 (yes)	47.9
	<i>r_group</i> (perceived prevalence of group rape)	<i>r_group</i> : 0 (no), 1 (yes)	32.3
	<i>r_witnes</i> (personal knowledge of rape in any prison in which you have been institutionalized)	<i>r_witnes</i> : 0 (no), 1 (yes)	20
	<i>r_movie</i> (observed rape in the movies)	<i>r_movie</i> : 0 (no), 1 (yes)	11
SV Index	<i>s_abuse</i> + <i>r_o_kill</i> + <i>r_v_kill</i> + <i>r_suic</i> + <i>r_one</i> + <i>r_group</i> + <i>r_witnes</i> + <i>r_movie</i>	Cronbach's $\alpha$ : 0.54	$M = 1.72$ $SD = 1.48$

(Appendix I continues)

(Appendix I continued)

Predictors (Extant Research)	Variable Name (Measure)	Coding	% (Yes)
<i>Appearance of Vulnerability</i> (Chonco, 1989; Tewksbury, 1989; Hensley et al., 2005):			
Fear of Sexual Assault	<i>r_entitl</i> (perception of entitlement to forced sex)	<i>r_entitl</i> : 0 (yes), 1 (no)	21.3
	<i>r_retali</i> (retaliation of rape by friends)	<i>r_retali</i> : 0 (yes), 1 (no)	51.8
	<i>r_worry</i> (perceived threat of rape)	<i>r_worry</i> : 0 (no), 1 (yes)	19.6
	<i>r_hear</i> (heard about an inmate being raped)	<i>r_hear</i> : 0 (no), 1 (yes)	50.4
	<i>r_folk</i> (rape folklore within prison)	<i>r_folk</i> : 0 (no), 1 (yes)	68
	<i>r_turn</i> (perception that raping is the same turning out)	<i>r_turn</i> : 0 (no), 1 (yes)	37.7
	<i>s_attrac</i> (perception of inmate attraction to themselves)	<i>s_attrac</i> : 0 (no), 1 (yes)	33.7
AV Index	<i>r_entitl</i> + <i>r_retali</i> + <i>r_worry</i> + <i>r_hear</i> + <i>r_folk</i> + <i>r_turn</i> + <i>s_attrac</i>	Cronbach's $\alpha$ : 0.45	$M = 3.13$ $SD = 1.46$

(Appendix I continues)

(Appendix I continued)

Predictors (Extant Research)	Variable Name (Measure)	Coding	% (Yes)
<i>Staff/Institutional Factors</i> (Chonco, 1989; Dumond, 2000; Eigenberg, 2000):			
Protective Factors	<i>r_preve</i> (officers try to prevent rape)	<i>r_preve</i> : 0 (no), 1 (yes)	68.7
	<i>s_trans</i> (transferring solves sexual pressure)	<i>s_trans</i> : 0 (no), 1 (yes)	23
	<i>s_pc</i> (safety in protective custody)	<i>s_pc</i> : 0 (no), 1 (yes)	33.3
	<i>r_report</i> (known rape reported to officer)	<i>r_report</i> : 0 (no), 1 (yes)	26.2
	<i>r_talk</i> (heard officers talking about rape)	<i>r_talk</i> : 0 (no), 1 (yes)	23.5
	<i>r_protec</i> (can system protect from rape)	<i>r_protec</i> : 0 (no), 1 (yes)	18.8
	<i>r_post</i> (rape guidelines posted on bulletin boards)	<i>r_post</i> : 0 (no), 1 (yes)	8.6
	<i>s_preven</i> (officers try to prevent sex)	<i>s_preven</i> : 0 (no), 1 (yes)	42.5
SIP Index	<i>r_preve</i> + <i>s_trans</i> + <i>s_pc</i> + <i>r_report</i> + <i>r_talk</i> + <i>r_protec</i> + <i>r_post</i> + <i>s_preven</i>	Cronbach's $\alpha$ : 0.20	$M = 2.64$ $SD = 1.31$

(Appendix I continues)

(Appendix I continued)

Predictors (Extant Research)	Variable Name (Measure)	Coding	% (Yes)
Risk Factors	<i>h_favor</i> (can homosexuals influence staff)	<i>h_favor</i> : 0 (no), 1 (yes)	78
	<i>r_play</i> (inmates say they got raped to play staff)	<i>r_play</i> : 0 (no), 1 (yes)	30.1
	<i>s_off</i> (inmates and officers have sex)	<i>s_off</i> : 0 (no), 1 (yes)	68.7
	<i>r_off</i> (officers rape inmates)	<i>r_off</i> : 0 (no), 1 (yes)	6.1
	<i>r_snitch</i> (reporting rape considered snitching)	<i>r_snitch</i> : 0 (no), 1 (yes)	77.3
SIR Index	<i>h_favor</i> + <i>r_play</i> + <i>s_off</i> + <i>r_off</i> + <i>r_snitch</i>	Cronbach's $\alpha$ : 0.46	$M = 2.60$ $SD = 1.15$



Appendix II.

*Study Predictors: Prior Investigations and Current Study Measures, Coding, and Descriptive Statistics*

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Predictors (Extant Research)	Variable Name (Measure)	Coding	<i>M</i>	<i>SD</i>	<i>Freq.</i>	<i>%</i>
<i>Demographics</i> (Chonco, 1989; Knowles, 1999; Dumond, 2000; Man & Cronan, 2001; Hensley et al., 2003; Hensley, 2005):						
Age	<i>age</i> (current age)	24 (24- yrs)	35	9		
		25 (25-29 yrs)				
		30 (30-34 yrs)				
		35 (35-39 yrs)				
		40 (40-44 yrs)				
		45 (45-49 yrs)				
		50 (50-54 yrs)				
55 (55+ yrs)						
Race	<i>race</i> (race)	1 (Black)			202	49.4
		2 (White)			154	37.7
		3 (Hispanic)			42	10.3
		4 (Other)			11	2.7

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(Appendix II continues)

(Appendix II continued)

Predictors (Extant Research)	Variable Name (Measure)	Coding	<i>M</i>	<i>SD</i>
<i>Incarceration Factors</i> (Hensley et al., 2003; Wolff et al., 2006):				
Recently Incarcerated (0-5 Months in Jail)	<i>state_mo</i> (total months in state prison)	<i>state_mo</i> : 6 (6 months or less), 7 (7-12 mos.), 13 (13-24 mos.), 25 (25-36 mos.), 37 (37-48 mos.), 49 (49-60 mos.), 61 (61-84 mos.), 85 (85-120 mos.), 121 (121-168 mos.), 169 (169-216 mos.), 217 (217-276 mos.), 277 (277-336 mos.), 337 (337 months or more)	101.26	93.5
	<i>state_b</i> (coded state months in state prison)	<i>state_b</i> : 0 (less than 120 mos.), 1 (120 or more)	0.43	0.50
	<i>state_a</i> (coded state months in state prison)	<i>state_a</i> : 0 (60 mos. or less), 1 (more than 60 mos.)	0.57	0.50

(Appendix II continues)

(Appendix II continued)

Predictors (Extant Research)	Variable Name (Measure)	Coding	<i>M</i>	<i>SD</i>
Conviction (Sexual Offender,Child Abuser, Domestic Violence)	<i>curr_c_b</i> (current conviction)	<i>curr_c_b</i> : 1 (violent), 2 (non-violent), 3 (drug)	1.40	0.69
<i>Mental Health</i> (Tewksbury, 1989; Dumond, 2000; Wolf et al., 2007):				
Status	<i>mh_st</i> (treated for mental health issues on the street)	0 (no), 1 (yes)	0.28	0.45
Treatment	<i>mh_inst</i> (voluntarily requested mental health treatment in prison)	0 (no), 1 (yes)	0.31	0.46
<i>Sexual Orientation</i> (Dumond, 2000; Man & Cronan, 2001; Hensley et al., 2003; Hensley et al., 2005):				
Homosexual, Bisexual	<i>sex_pr_b</i> (sexual preference)	<i>sex_pr_b</i> : 1 (straight), 2 (gay), 3 (bisexual)	1.24	0.58
	<i>samesex</i> (adolescent or adult same-sex experience on the street)	<i>samesex</i> : 0 (no), 1 (yes)	0.17	0.38

Appendix III.

*Revised Indices, Coding, and Descriptive Statistics*

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Predictors	Variable Name (Measure)	Coding	% (Yes)
Risk for Sexual Victimization	<i>r_report</i> (known rape reported to officer)	<i>r_report</i> : 0 (no), 1 (yes)	26.2
	<i>r_talk</i> (heard officers talking about rape)	<i>r_talk</i> : 0 (no), 1 (yes)	23.5
	<i>r_play</i> (inmates say they got raped to play staff)	<i>r_play</i> : 0 (no), 1 (yes)	30.1
	<i>r_movie</i> (observed rape in the movies)	<i>r_movie</i> : 0 (no), 1 (yes)	11
	<i>r_suic</i> (known rape victim who committed suicide)	<i>r_suic</i> : 0 (no), 1 (yes)	15.6
	<i>r_hear</i> (heard about an inmate being raped)	<i>r_hear</i> : 0 (no), 1 (yes)	50.4
	<i>r_witnes</i> (personal knowledge of rape in any prison in which you have been institutionalized)	<i>r_witnes</i> : 0 (no), 1 (yes)	20
RSV Index	<i>r_report</i> + <i>r_talk</i> + <i>r_play</i> + <i>r_movie</i> + <i>r_suic</i> + <i>r_hear</i> + <i>r_witnes</i>	Cronbach's $\alpha$ : 0.71	$M = 1.83$ $SD = 1.75$

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