SEXUAL ASSAULT SURVIVORS’ NARRATIVES
AND PREDICTION OF REVICTIMIZATION

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SEXUAL ASSAULT SURVIVORS’ NARRATIVES
AND PREDICTION OF REVICTIMIZATION

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One of the most damaging potential consequences of sexual assault is sexual revictimization. Women who have been sexually victimized are as much as twice as likely to be sexually victimized (in their case, revictimized) than women who have never been sexually victimized. Among the theories that have been advanced to explain this relationship is the theory that for some women, being traumatically sexually victimized disrupts their processing of cognitions and affect in such a way as to impair their ability to cope with situations in which they are vulnerable to revictimization.

This study examines the relationship between the level of coherence and organization of sexual assault survivors’ narratives of their assault experiences and their risk of revictimization. One hundred forty college women answered questionnaires about their sexual assault experiences and were interviewed about their experiences. The interviews were then analyzed for the presence of several putative markers of organization, disorganization, coherence, and incoherence. After approximately four months, the women were assessed to determine which had been sexually revictimized during the intervening period.

Logistic regression analysis finds no effect of organization or coherence of the women’s narratives on either sexual revictimization in general, or sexual revictimization involving unwanted sexual intercourse. This study examines possible reasons for this
negative finding and suggests possible future studies that could continue to examine the relationship between narrative and trauma.

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Table of Contents

Abstract 4
Acknowledgments 6
List of Tables 9

Introduction
  Overview 10

Review of the Literature 16
  Prevalence and Incidence of Sexual Assault 16
  Risk Factors for Sexual Assault 18
  Revictimization: Sexual Assault as a Risk Factor for Sexual Assault 20
  Consequences of Revictimization 22
  Correlates of Revictimization 23
  Models of Revictimization 30
    Learning theory 30
    Risk recognition 32
    Unresolved trauma 34
  Unresolved Trauma and Mechanisms of Revictimization 37
  Unresolved Trauma and Meaning 38
  Unresolved Trauma and Narrative 43
  Identifying Coherence in Narratives 47

The Present Study 50
Method 52
  Participants 52
    Return rate for participants 53
    Demographics 57
  Data Collection 63
    Questionnaires 63
    Interview 67
  Transcription and Coding of Interviews 69
  Reliability 74
  Data Analysis 80

Results 85
  Situational Factors 86
  Sexual Victimization History 89
  Revictimization 95
  Questionnaire Measures 102
List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic Summary of Participants</td>
<td>58-60</td>
</tr>
<tr>
<td>2. Sexual History of Participants</td>
<td>61-62</td>
</tr>
<tr>
<td>3. Interrater Reliability of Coding for Content Analysis Manual</td>
<td>78-79</td>
</tr>
<tr>
<td>4. Interrater Reliability of Coding for Life Story Coherence Scale</td>
<td>81-82</td>
</tr>
<tr>
<td>5. Variables and Measures Tested in the Study</td>
<td>83-84</td>
</tr>
<tr>
<td>6. Alcohol Use by Participants in the Study</td>
<td>87-88</td>
</tr>
<tr>
<td>7. Victimization History of Participants in the Study</td>
<td>90-94</td>
</tr>
<tr>
<td>8. Perpetrators and Recency of Assault</td>
<td>96-97</td>
</tr>
<tr>
<td>9. Revictimization Experiences of Participants in the Study</td>
<td>98-101</td>
</tr>
<tr>
<td>10. Perpetrators and Recency of Revictimization</td>
<td>103-104</td>
</tr>
<tr>
<td>11. Descriptive Statistics of Questionnaire Measures</td>
<td>105</td>
</tr>
<tr>
<td>12. Intercorrelations Between Questionnaire Measures</td>
<td>106</td>
</tr>
<tr>
<td>13. Descriptive Statistics of Narrative Variables</td>
<td>108</td>
</tr>
<tr>
<td>14. Intercorrelations Between Narrative Variables</td>
<td>109-110</td>
</tr>
<tr>
<td>15. Summary of Univariate Logistic Regression Analyses</td>
<td>118-121</td>
</tr>
<tr>
<td>16. Summary of Multivariate Logistic Regression Analyses</td>
<td>122-125</td>
</tr>
</tbody>
</table>
Sexual Assault Survivors' Narratives
and Prediction of Revictimization

Introduction

Overview

Sexual assault of women by men is by no means a recent social phenomenon, nor is it one that is unique to Western or American culture. However, despite its age-old history and its particular saliency for women, it is only in the last 20 years or so that sexual assault has come to be acknowledged as both an important topic of scientific study and an antisocial behavior that might be prevented, or at least made less prevalent, through careful investigations into its antecedent causes and correlates (Harvey & Herman, 1992).

Although some of the studies into the causes and prevention of sexual assault have investigated perpetrators of such assault (e.g., Cornett & Shuntich, 1999; Layman, 1996; Merrill et al., 1999; Ouimette & Riggs, 1998), the majority of studies have focused on attitudes, behaviors, and other possible risk factors whose presence in women may increase women's chances of becoming victims of sexual assault. What has been made abundantly clear by these studies is that sexual assault is a multiply-determined event. Studies have found that among women, risk factors for sexual assault include demographic, interpersonal, and psychological factors (e.g., Acierno, Resnick, Kilpatrick, Saunders, & Best, 1999; Greene & Navarro, 1998; Merrill et al., 1999; Reig, 1999; Sandberg, 1996).
Possibly the most well-established risk factor for sexual assault is a history of a previous sexual assault (Gidycz, Coble, Latham, & Layman, 1993; Koss & Dinero, 1989). With few exceptions (Dowdall, 1999; Nash et al., 1993) studies have found that the experience of being sexually victimized, whether as a child, adolescent, or adult, significantly increases a woman's chance of being sexually assaulted again in the future (e.g., Acierno et al., 1999; Collins, 1998; Gidycz et al., 1993; Gidycz, Hanson, & Layman, 1995; Greene & Navarro, 1998; Merrill et al., 1999). Studies have found that as many as 50% of rape or attempted rape victims have histories of prior sexual victimization (Ellis, Atkinson, & Calhoun, 1982; Miller et al., 1978; Russell, 1983), and that being sexually victimized makes a woman between 1.5 and 2.4 times more likely to be the victim of a subsequent sexual assault than a woman who has not been previously victimized (Gidycz et al., 1993, 1995; Wyatt, Guthrie, & Notgrass, 1992).

Like sexual victimization, sexual revictimization is a multiply-determined event. Factors that have been found to significantly increase a woman's chance of being revictimized include demographic factors (Ellis et al., 1982; Miller et al., 1978), interpersonal factors (Mayall & Gold, 1995), psychological factors (Ellis et al., 1982; Miller et al., 1978; Sandberg, 1996), and specific aspects of the previous victimization (Collins, 1998; Cloitre, 1998; Mayall & Gold, 1995; Miller et al., 1978).

While some factors are risk factors for both sexual victimization and revictimization, many others have been found to be uniquely associated with revictimization, strongly suggesting that the factors that place a woman at risk for sexual
revictimization are qualitatively different from the factors that place a woman at risk for an initial sexual assault.

It is also clear from the existing data that although being sexually victimized often leads to being revictimized, not every woman who has been sexually victimized once is victimized again. That is, no study has as yet identified any specific path that consistently leads from victimization to revictimization.

A number of models have been theorized to try to explain revictimization. Among them are models derived from learning theory (Mandoki & Burkhart, 1989; Messman & Long, 1996; van der Kolk, 1989; Wyatt et al., 1992). Other theories focus on disturbances in interpersonal trust and attributions, or schemas, about the self and the world resulting from the original victimization (Brothers, 1992; Janoff-Bulman, 1989; McCann & Pearlman, 1990), or suggest that deficits in recognition of risk or responsiveness to perceived risk may underlie revictimization (Cloitre, 1994; Wilson, Calhoun, & Bernat, 1999). Still others are derived from the unresolved trauma model of revictimization, which posits that a victim's search for meaning in, or mastery over, the victimization experience may lead to an unconscious compulsion to repeat the trauma or to place one's self in harm's way (Cloitre, Scarvalone, & Difede, 1997; Finkelhor & Browne, 1985; Freud, 1920/1961; van der Kolk, 1989).

In recent years, a number of studies have been conducted in initial attempts to garner support for one or another of these models (Messman & Long, 1996). Discouragingly, most of these studies have succeeded mainly in raising doubts about the
models of interest, either by finding contradictory evidence or by making it more evident that the models themselves lack a necessary amount of internal coherence.

As is the case with models derived from learning theory, schema theories, or theories of impaired risk recognition, models derived from theories of unresolved trauma suffer similar problems. The theoretical complexity and multitude of possible mechanisms of unresolved trauma make it difficult at best to identify any one specific related factor that would lead to revictimization. This very complexity, however, suggests another way of searching for the necessary and sufficient precursors of revictimization. That is, regardless of the specific theoretical mechanism that may be at work, theorists who hold to unresolved trauma as the cause of revictimization claim that it appears to result in a victim's either putting herself in harm's way or keeping herself there, despite – or perhaps because of – her recognition of the dangerousness of the situation (Cloitre, Scarvalone, & Difede, 1997; Finkelhor & Browne, 1985; Freud, 1920/1961; van der Kolk, 1989). Following this line of reasoning, if one could reliably identify markers of putative unresolved trauma among sexual assault survivors, one could hypothesize that such markers could allow a clinical observer to predict which survivors are at greatest risk for revictimization, regardless of how such revictimization might ultimately come about. Identification of such markers could be an important step in understanding and ultimately preventing revictimization among survivors of sexual assault.

One common thread appearing throughout several related lines of research regarding the resolution of trauma is the usefulness of investigating the narrative
expression of a traumatic event as a way to determine both organization and meaningfulness of the victim's representation of the event (Amir, Stafford, Freshman, & Foa, 1998; Foa, 1997; Foa, Molnar, & Cashman, 1995; Foa & Riggs, 1994; Harber & Pennebaker, 1992; Harvey, 1996; Herman, 1997; Leahy, Pretty, & Tenenbaum, 2003; Pennebaker, Mayne, & Francis, 1997; Pennebaker & Seagal, 1999; van Minnen, Wellel, Dijkstra, & Roelofs, 2002; Zoellner, Alvarez-Conrad, & Foa, 2002). Narrative simply refers to the story that the victim tells to herself or others about the sexual victimization experience (Herman, 1997). However, in both the field of traumatology and the field of narrative analysis, a narrative is both more and less than a simple story, in that it represents the victim's attempt to integrate the event into her normal consciousness and to make coherent sense of her experience (Amir et al., 1998; Foa, 1997; Foa et al., 1995; Foa & Riggs, 1994; Riessman, 1993; Zoellner, Alvarez-Conrad, & Foa, 2002).

The field of narrative analysis, developed from the study of psycholinguistics, grammar, and discourse, tells us that a narrative, in addition to being the story of an event, shows us "how respondents in interviews impose order on the flow of experience to make sense of events and actions in their lives" (Riessman, 1993, p.2). In narrative analysis, it is not so much what is said that is important, but how it is said (Riessman, 1993). Thus, from the field of narrative analysis as well comes the idea that it is the organization of a victim's narrative, even more than the content, that may reflect a victim's current cognitive and emotional stance toward a traumatic event. That is, a victim's narrative of her traumatic experience may provide a window into the extent to which she has resolved – or failed to resolve – her experience.
This study examined whether the lack of resolution of trauma resulting from sexual assault, as shown by the disorganization of sexual assault survivors' narratives of their assault experiences, was associated with an increased risk of revictimization. One hundred forty college women who experienced sexual assault as adolescents filled out questionnaires related to their assault experiences, current symptomatology, and the meaning they have derived from or placed on their experiences. In addition, they took part in individual interviews about their assault experiences in order to obtain current narratives about their experiences. These narratives were analyzed to determine the degree of organization and meaningfulness evidenced in the narratives. The participants returned for follow-ups at approximately four to six months, at which time they reported on any sexual victimization experiences that occurred during the follow-up period. By using this prospective design, this study examined whether unresolved trauma resulting from sexual assault, as indicated by the degree of organization and meaningfulness in a woman's narrative of her sexual assault experience, predicts revictimization.
Review of the Literature

*Prevalence and Incidence of Sexual Assault*

A recent nationwide telephone survey by the National Institute of Justice and the Centers for Disease Control and Prevention, the National Violence Against Women Survey (Tjaden & Thoennes, 1998), sampled 8,000 women over the age of 18 to investigate the prevalence and incidence of physical violence and forcible rape. The survey used questions that were worded in such a way as to avoid the use of the actual words “rape” or “sexual assault” to prevent the underreporting of situations in which a woman may have had an experience that met the legal definition of rape, but which the victim did not perceive as rape or assault (Koss, 1985, 1988; Layman, Gidycz, & Lynn, 1996; Mynatt & Allgeier, 1990) This survey found that 18% of the women surveyed had experienced a completed or attempted rape at some time in their life, and that 0.3% of the women surveyed had experienced a completed or attempted rape in the previous 12 months. The authors extrapolated from their survey sample to the entire current United States population, and estimated that 17,722,672 women had been forcibly raped during their lifetime (out of an estimated total population of 100,697,000 women), and that 302,091 women had been forcibly raped during the previous 12 months. It is important to note that this survey only measured oral, anal, or vaginal intercourse or attempted intercourse, and only that perpetrated by force or the use of force. No provision was made in the survey language for rape or attempted rape that occurred through the use of
authority, alcohol, or drugs, or for unwanted sexual experiences that did not involve completed or attempted intercourse.

Other recent studies have found prevalence rates that are generally similar to or higher than those found by the National Violence Against Women Survey. The U.S. Naval Recruit Health Study surveyed 3,776 female and male recruits during basic training using language that also avoided using the terms “rape” and “sexual assault,” and found that 36% of the women reported having had experiences that met the legal definition of rape (Merrill et al., 1998). However, the limited population base of this study makes the generalizability of its findings questionable. The National College Health Risk Behavior Study, a survey of 4,828 college students funded by the Centers for Disease Control, found that 20% of the women surveyed had experienced rape and that 15% of the women surveyed had experienced rape since the age of 15 (Brenner, McMahon, & Douglas, 1999), although this study is also limited in its generalizability.

As documented by the National Violence Against Women Survey, rape is primarily a crime that is perpetrated against young women. Of the women who reported being raped in some time in their lives, 22% were under 12 years old and 32% were 12 to 17 years old when they were first raped. An earlier study conducted by the National Victims Center and the Crime Victims Research and Treatment Center at the Medical University of South Carolina found that almost 61% of rapes occur before the victim's 18th birthday (Kilpatrick, Edmonds, & Seymour, 1992).

College women are hardly immune from rape and sexual assault. Koss, Gidycz, and Wisniewski (1987) conducted a national study of sexual victimization on college
campuses and found that more than half of the women surveyed (54%) reported some form of sexual contact, while 15% of those women reported that they had an experience that met the legal definition of rape. A recent study conducted among 589 women at a mid-sized Midwestern university found that 62 women (9.5%) reported experiencing some sort of sexual victimization during a single 9-week period, and that of those 62 women, 22 women (3.7% of the total sample) reported having been the victims of rape or attempted rape (Dowdall, 1999).

While there is some disagreement about the actual percentages from study to study, it is well supported that the prevalence of rape in the United States is 15% or greater, that women under the age of 18 are at elevated risk for rape or other sexual assault, and that college women share at least the same degree of risk as women in the general population.

*Risk Factors for Sexual Assault*

A wide variety of factors have been found to correlate with a woman’s risk of sexual assault, with researchers investigating cultural factors, such as societal power differentials between men and women (Harney & Muehlenhard, 1991), situational factors, such as alcohol use (Greene & Navarro, 1998; Merrill et al., 1999; Muehlenhard & Linton, 1987; Sandberg, 1996), and victim characteristics, including demographic factors such as young age (Acierno et al., 1999) and personality factors (Amick & Calhoun, 1987).

For example, in examining cultural risk factors, several studies have found that acceptance of rape myths, such as the belief that women secretly want to raped, is
significantly associated with a man’s likelihood of being sexually aggressive (Muehlenhard & Linton, 1987; Rapaport & Burkhart, 1984). Among situational risk factors, alcohol use by both men and women has consistently been found to be associated with an increase in a woman’s chance of sexual victimization (Koss & Dinero, 1989; Muehlenhard & Linton, 1987), with one recent study finding that women who drank heavily (more than twice a week, six or more drinks each time) were approximately eight times more likely to be assaulted during a two-month period than women who were non-drinkers (Gidycz et al., 2001). Other situational risk factors include more precocious and frequent consensual sexual experience (Greene & Navarro, 1998; Koss & Dinero, 1989; Merrill, 1999; Reig, 1999; Sandberg, 1996) and presence in an isolated or non-public location (Amick & Calhoun, 1987; Muehlenhard & Linton, 1987).

Characteristics of the victim that have been found to be associated with sexual assault risk include holding traditional female role values, such as deference to males or believing that women should not get angry (Amick & Calhoun, 1986; Bart & O’Brien, 1984), or being more accepting of violence against women (Muehlenhard & Linton, 1987); however, other studies have not found such factors to be associated with sexual assault (Koss, 1985; Koss & Dinero, 1989), and this area remains controversial (Harney & Muehlenhard, 1991; Himelein, 1995). Recently, Greene and Navarro (1998) found depression and anxiety to be risk factors for rape, although Acierno et al. (1999) found that depression was not associated with increased risk of rape.

A number of interpersonal risk factors have also been investigated in regard to sexual assault. Muehlenhard and Linton (1987) found that men were more likely to be
sexually aggressive when men drive and pay expenses on dates. In an analogue study, Marx and Gross (1995) reported that a woman’s token resistance to sexual pressure at the start of a relationship may place her at greater risk of having a man ignore her resistant statements and actions later in the relationship. Greene and Navarro (1998) found insecurity in other-sex relationships to be associated with a higher risk of rape.

A necessary critique of most of the above studies is that the design of most studies of sexual assault makes it difficult at best to ascribe cause and effect. With few exceptions (Himelein, 1995; Sandberg, 1996), the studies cited above used retrospective designs in which putative risk factors were examined after sexual assault had occurred, leaving open the question of whether the factors cited as “risk factors” were precursors or consequences of the assault.

Revictimization: Sexual Assault as a Risk Factor for Sexual Assault

One well-established consequence of sexual assault is an increased risk of revictimization (Acierno et al., 1999; Collins, 1998; Gidycz et al., 1993, 1995; Greene & Navarro, 1998; Koss & Dinero, 1989; Merrill et al., 1999; Sorenson, Siegel, Golding, & Stein, 1991). Studies have found that the experience of being sexually abused or assaulted, whether as a child, adolescent, or adult, increases a woman's chance of being sexually assaulted again in the future. In a study of rape victims in an emergency room, Miller et al. (1978) found that 24% had been sexually victimized previously, while Russell (1984) found that 50% of a sample of victims of rape or attempted rape had a history of victimization.
Prospective, longitudinal studies by Gidycz and colleagues (Gidycz et al, 1993, 1995) among college women have indicated that women with a history of sexual victimization were 1.5 – 2 times more likely than non-victims to be revictimized during the course of an academic quarter, and that risk of revictimization was directly related to the severity of victimization in the immediately previous time period. Wyatt et al. (1992) reported that women who had been sexually abused as children were 2.4 times more likely to revictimized as adults than non-victims.

Mandoki and Burkhart (1989) caution that studies that include child sexual abuse as prior sexual victimization may be confounded by the high base rates of child sexual victimization, estimates of which range from 19% (Finkelhor, 1979) to 38% (Russell, 1984), making it fairly likely that in any group of women, a significant percentage will have experienced prior victimization. Very few studies have restricted their examination of revictimization to adolescence and adulthood, considering only prior victimization which occurred after age 14. Using this more restrictive definition of prior victimization, Ellis et al. (1982) found that 21% of a sample of 117 women seen at a rape crisis center had been raped previously after the age of 14, a figure that is similar to those seen in samples that include child sexual victimization. However, in the National Violence Against Women Survey (Tjaden & Theonnes, 1998), which found that 0.3% of women had been forcibly raped during the previous 12 months, the mean number of victimizations per victim during the previous 12 months was 2.9 (SD = 1.431), strongly suggesting that even when child sexual abuse is removed from the equation, prior history of sexual victimization as an adolescent or adult is significantly related to the risk of
future sexual victimization. Similarly, in a prospective study of 100 college women, Himelein (1995) found that precollege sexual victimization while dating was the most powerful predictor of sexual victimization in college. A more recent study of 589 women at a mid-sized Midwestern university found that although there was no significant relationship between childhood sexual victimization and an adolescent or adult sexual victimization experience, there was a significant relationship between adolescent sexual victimization and adult sexual victimization, such that women who experienced sexual victimization as adolescents were significantly more likely to experience sexual victimization as adults than women who had not been sexually victimized in adolescence (Dowdall, 1999).

**Consequences of Revictimization**

In addition, studies have typically found that the experience of being sexually victimized more than once increases a woman's risk for certain consequences of assault. Ellis et al. (1982) compared 25 multiple-incident victims of sexual assault with 25 single-incident victims, and found that the multiple-incident victims reported significantly more suspiciousness and hostility, fewer and less satisfying social and sexual relationships, more depression, and more suicide attempts. Kilpatrick, Veronen, and Resick (1979) reported that multiple rape victims show more fear than victims of single rapes. Frank, Turner, and Stewart (1980) found that multiply-victimized survivors of sexual assault showed lower global social adjustment and increased disruption in social functioning compared to single-incident rape victims, and McCahill, Meyer, and Fischman (1979) reported that one year post-rape, victims of multiple rapes had more intense nightmares.
and more fear of being home alone than victims of single rapes. However, neither Marhoefer-Dvorak, Resick, Hutter, and Girelli (1988) nor Sorenson et al. (1991) found differences between single and multiple rape victims in terms of psychological functioning.

Correlates of Revictimization

A multitude of explanations have been advanced to account for the increased risk of revictimization among prior victims, as well as for increased consequences upon revictimization (Sandberg, 1996). Among the mechanisms that have been investigated are demographic and social variables (Ellis et al., 1982; Koss & Dinero, 1989; Miller et al., 1978; Skelton, 1985; Ziegenhagen, 1976), personality variables (Classen, 1998; Ellis et al., 1982;), specific aspects of the previous victimization, such as incestuous assault (Russell, 1986) or use of force (Collins, 1998), the presence of additional types of victimization in addition to prior sexual victimization (Moeller, Bachmann, & Moeller, 1993), or neurobiological or cognitive responses to the previous assault (Cloitre, 1994; Gidycz et al., 1993, 1995; van der Kolk, 1989).

In their study of 117 women at a rape crisis center, Ellis et al. (1992) found that multiple-incident victims were more likely to be at a lower socioeconomic level, to be more transient, and to report a history of greater use of psychiatric services compared to single-incident victims. They suggested that poverty, transience, and living in high crime neighborhoods may place multiple-incident victims at greater risk. Alternately, they suggested that their relatively poor psychological adjustment (compared to women who had not previously been victimized) led to their lower income level, more dangerous
living situations, and a more solitary lifestyle, all of which they felt would contribute to increased risk for revictimization. These results are comparable to those of Miller et al. (1978), who found that multiply-victimized women seen at a rape crisis center were more likely to be unemployed and to be recent arrivals to the city, as well as to have previously sought psychiatric treatment. While excluding rape victims, Ziegenhagen (1976) found that recidivist victims of crime were slightly older, from lower income backgrounds, and more likely to be victimized away from home than non-recidivist crime victims. Simons and Whitbeck (1991) found that sexually revictimized adults were more likely than first-time victims to have a history of prostitution and criminal behavior. However, it should be noted that all of these studies used retrospective rather than prospective designs, making it impossible to determine whether these correlates of sexual revictimization were causes or consequences of previous victimization experiences. It must also be noted that study participants who are recruited at rape crisis centers may not be representative of the general population, as a large percentage of women who are sexually assaulted never report the events (Koss, 1985, 1988; Layman, Gidycz, & Lynn, 1996; Mynatt & Allgeier, 1990; Russell, 1983).

Several studies have examined the association between alcohol use and consensual sex and sexual revictimization. Koss and Dinero (1989) found that several factors, including more liberal sexual attitudes, increased use of alcohol, and increased sexual activity contributed to revictimization among college women, while Wyatt et al. (1992) found that multiply victimized adults reported more unintended pregnancies and abortions, more sex partners, and briefer sexual relationships than singly victimized
adults. The direction of cause and consequence in the latter study was unknown, however. Mandoki and Burkhart (1989) found that an increased number of sex partners, a larger number of different dating partners, and living apart from one's mother were all associated with their multiply-victimized group; however, they also found that an increase in the number of sex partners followed adult revictimization, rather than predicting revictimization.

Few studies have examined personality variables between single-rape and multiple-rape victims. Classen (1998) used the Inventory of Interpersonal Problems (IIP; Horowitz et al., 1988) to show that recent sexual assault victims with a history of child sexual abuse were higher in overly nurturant, intrusive, and nonassertive interpersonal behaviors than recent victims without a history of child sexual abuse. Miller et al. (1978) reported that multiply victimized women have strong dependency needs, and Skelton (1985) found that women with higher rates of victimization were more likely to choose assertive, domineering, "macho" men as their partners. As with most other studies of revictimization, it is not possible to tell from these studies whether these correlates are causes or consequences.

Specific aspects of the prior victimization may also contribute to revictimization. Collins (1998) conducted a secondary analysis of a longitudinal data set of 315 adolescent mothers, and found that in addition to previous sexual victimization, previous forcible rape and having ever been hit by a partner increased the likelihood of revictimization. Mayall and Gold (1995) surveyed 654 college women and found that only contact forms of child sexual abuse were associated with significant rates of
revictimization, while non-contact forms of child sexual abuse were not. Moeller et al. (1993) found that the number of different types of childhood victimization, and not childhood sexual abuse by itself, was predictive of revictimization.

Van der Kolk (1989) has noted a number of neurobiological consequences of sexual assault that may contribute to revictimization. He has noted that trauma leads to a decreased ability to modulate physiological arousal, with the result that a person who has experienced a prior trauma will be more likely to experience a subsequent stress as a somatic state, and not as a specific event to be coped with. In addition, he has referred to animal models and to studies of Vietnam veterans to suggest that trauma victims will experience a dysregulation of the endogenous opioid system and extreme increases in endogenous opioids in response to subsequent stress, such that exposure to extreme stress is necessary to stimulate the endogenous opioid system and provide soothing relief from anxiety. Van der Kolk (1989) has referred to this process as "addiction to trauma" (p. 399).

Among cognitive responses to assault, dissociation in response to trauma has been widely investigated. Dissociation is defined in the current version of the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, Text Revision (DSM-IV-TR, American Psychiatric Association, 2000) as “a disruption of the usually integrated functions of consciousness, memory, identity, or perception” (p. 519). Severely pathological dissociation may take the form of an extensive inability to remember personal information not due to organic illness, as in dissociative amnesia or dissociative fugue. In some less severe instances of dissociation as well, although sensory processes
operate properly, those sensations are not perceived, or do not enter in consciousness, or are not properly encoded into memory.

Unlike repression, which was conceptualized as active forgetting of material that had once been conscious (Freud, 1920/1961), dissociation was originally conceptualized from a psychodynamic perspective as a defense mechanism that operated to protect the psyche of a person who underwent an unbearably traumatic experience by preventing material from entering consciousness in the first place. In this way, dissociation was thought to make the unbearable bearable (Janet, 1907; Van der Kolk, van der Hart, and Marmar, 1996). Although psychodynamic writers saw this as a dissociation between the observing and experiencing egos (Marmar, Weiss, Schlenger, and Fairbank, 1994), more neurobiologically oriented authors have sought to explain dissociation in terms of chemical events such as massive noradrenergic activity at the time of the traumatic event (Van der Kolk, van der Hart, & Marmar, 1996) or continuous physiologic hyperarousal due to dysfunctions in the hypothalamus-pituitary-adrenal (HPA) axis caused by exposure to severe or long-lasting stress (Bremner et al., 1992).

A large number of studies have shown that dissociation in response to trauma, and particularly peritraumatic dissociation, significantly predicts subsequent PTSD. While a number of these studies have involved combat veterans (Bremner et al, 1992; Brende, 1987; Marmar et al., 1994; Solomon, 1989), civilian survivors of war (Carlson & Rosser-Hogan, 1991; Shalev, Peri, Canetti, & Schreiber, 1996), or survivors of natural or man-made disasters (Cardeña & Spiegel, 1993; Koopman, Classen, & Spiegel, 1994; McFarlane, 1988), Birmes, Brunet, Carreras, and Ducasse (2003) found a similar
relationship among victims of physical assault, and Coons and Milsten (1986) found a similar relationship among victims of rape in adolescence or adulthood. The presence of PTSD, in turn, has been found to increase a woman's risk for sexual victimization (Acierno et al., 1999; Sandberg, 1996). Since PTSD has been found in as many as 50% of rape victims (Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992), this suggests that dissociation leading to PTSD may be one pathway by which victimization may lead to revictimization.

However, a recent study by Gershuny, Cloitre, and Otto (2003) casts some doubt on the relationship between dissociation and PTSD. This study of 146 non-patient college women found that after controlling for the fear of death and losing control which the women experienced during the event, the relationship between Peritraumatic dissociation and PTSD was no longer significant.

Dissociation as a variable in revictimization apart from its relationship with PTSD has only begun to be investigated. Cloitre et al. (1997) found that women with a history of both childhood and adult sexual assaults reported dissociative experiences more frequently than women who had been assaulted only in adulthood. Becker-Lausen, Sanders, and Chinsky (1995) surveyed 299 undergraduate college students and found that dissociation following child maltreatment was directly related to later sexual victimization (although it has been noted that because this study was not a prospective study, the results may simply show that revictimization leads to increased dissociation, rather than the other way around; Sandberg, Matorin, & Lynn, 1999). To the contrary, Sandberg et al. (1999) reported that in a prospective study of 323 college women,
dissociation did not predict revictimization; however, that study used a measure of 
current dissociation, the Dissociative Experiences Scale (Bernstein & Putnam, 1986), 
rather than a measure of peritraumatic dissociation (although the Dissociative 
Experiences Scale was also the instrument used in the Becker-Lausen et al's 1995 study 
referenced above). Sandberg et al. (1999) also noted other possible reasons for their 
study’s failure to find a relationship between dissociation and revictimization, including a 
relatively short follow-up period and the possibility that dissociation may have interfered 
with the participants’ recollection and reporting of sexual victimization.

Taking an opposite view of reporting problems, Merckelbach and Muris (2001) 
noted that high scores on the Dissociative Experiences Scale are often accompanied by 
high scores on fantasy proneness and suggestibility. They suggest that rather than 
preventing the reporting of sexual victimization, dissociation may encourage these 
fantasy prone individuals to report traumatic experiences that may not have occurred.

A recent retrospective-prospective study by Pashdag, Dowdall, and Gidycz 
(1999), however, found no relationship between current dissociation, as measured by the 
Dissociative Experiences Scale, and revictimization, although peritraumatic dissociation 
in response to child sexual abuse was found to be associated with an increased risk of 
adolescent sexual revictimization. In light of these studies, a direct association between 
dissociation and revictimization that is not mediated by PTSD has yet to be convincingly 
shown.
Models of Revictimization

A number of researchers have attempted to unite several of these variables into organized models of revictimization. Among the most common are models relating to learning theory (Kilpatrick et al., 1979; Messman & Long, 1996; van der Kolk, 1989; Wyatt et al., 1992), deficits in risk recognition and other cognitive or information processing deficits (Cloitre, 1994; Foa & Hearst-Ikeda, 1996; Foa & Riggs, 1994; Gidycz et al., 1993), and unresolved trauma (Cloitre et al., 1997; Finkelhor & Browne, 1985; Freud, 1920/1961; Gidycz et al., 1993; van der Kolk, 1989; Janoff-Bulman, 1989; McCann & Pearlman, 1990; McCann, Sakheim, & Abrahmson, 1988; Marhoefer-Dvorak et al., 1988; Roth & Lebowitz, 1988; Roth & Newman, 1991, 1993). In recent years, several studies have been conducted to begin the task of attempting to validate or disprove these and other models (Messman & Long, 1996).

Learning theory.

Messman & Long (1996) have developed a model of revictimization based on learning theory. Their model suggests that victims are classically and operantly conditioned to be "better" victims (Messman & Long, 1996). Messman and Long (1996) specifically mention the perpetrator's use of modeling, instruction, reinforcement, and punishment to facilitate compliance in a victim. In addition, the perpetrator's lack of regard for the victim's wishes may lead to decreased self-efficacy. Mandoki and Burkhart (1991) and Wyatt et al. (1992) add that victims learn low self-esteem, as well as the perception that they are unable to control what happens to their bodies or to find nonabusive relationships, and thus learn that resistance is futile.
Van der Kolk (1989) has related revictimization to state-dependent learning; that is, exposure to extreme stress primes the norepinephrine system in such a way that the current stress is experienced as a reenactment of the original trauma, especially among victims who have experienced primary dissociation. Van der Kolk (1989) also noted that when faced with an extremely stressful situation, hyperaroused animals with a history of trauma will seek out familiar circumstances, even if those circumstances (such as a shock box) are aversive, rather than increase their state of arousal even more by seeking out a novel stimuli, even if it might reduce exposure to pain. This is not simply learned helplessness (Seligman, 1991) in which an animal fails to seek to escape from an aversive situation, but rather a situation in which the animal actively goes to the place where the aversive consequence is probable or certain. Van der Kolk has extrapolated this to cases in which human victims of trauma sometimes appear to place themselves in the same or similar situations as those in which their traumatic experiences occurred.

Van der Kolk (1989) has further proposed that Solomon's opponent process theory may account for some of the strength of the learned maladaptive behavior. According to this theory, behaviors that are initially aversive, such as skydiving or running a marathon, can become highly pleasurable due to the pleasure that is felt once the aversive reinforcer is removed. Over time, the desire to experience that pleasure strengthens as the desire to avoid the originally aversive stimuli weakens due to habituation, as in the case of an experienced skydiver who no longer feels the initial fear of jumping out of a plane, but who continue to feel exhilarated after landing. Van der
Kolk (1989) suggested that this process is the cognitive component of the neurobiological addiction to trauma previously discussed.

Models of revictimization relating to learning theory incorporate many well-known aspects of learning, including classical and operant conditioning by the perpetrator, poor self-efficacy, learned helplessness, state-dependent learning, and opponent process theory. Although these models may be theoretically sound, none of these models have, to date, been tested empirically.

Risk recognition.

A second model that has been proposed to account for revictimization processes proposes that at least some women who have experienced trauma are affected in such a way as to lessen their ability to recognize danger cues in their environment. Thus, they may enter or remain in risky or dangerous situations not in an attempt to reduce arousal, as van der Kolk (1989) suggests, but rather as a result of their inability to perceive the risk (Wilson et al., 1999). In support of this model, Wilson and Calhoun (cited in Wilson et al., 1999) found that women who had been sexually victimized more than once took significantly longer to determine that a woman in an audiotaped scenario was in danger of sexual assault than did women with only one or no prior victimizations. Furthermore, among those women who had been victimized more than once, women with lower levels of arousal took longer to respond to danger cues than did women with higher levels of arousal. This suggests that if van der Kolk (1989) is correct, a victim may seek out a familiar, if dangerous, situation or setting in order to lower her arousal to a bearable level, only to be revictimized not only because the situation or setting is dangerous, but also
because she has succeeded in finding the lower arousal she had sought. Meadows and her colleagues (Meadows, Jaycox, Webb, & Foa, cited in Wilson et al., 1999) have also found that revictimized women experience decreased recognition of danger cues. In their study, they also found that this relationship was mediated by dissociation.

Cloitre (1994) has theorized that several mechanisms might contribute to impairment in risk recognition among victims of previous assault. Dissociation may directly decrease a woman's awareness of her environment and its potential risks. Alexithymia, the inability to identify affect, may make it more difficult to identify potentially dangerous emotional cues in other persons, as well as making an alexithymic woman's protests against sexual aggression less apparent or convincing. Emotional numbing, or lack of normal arousal and responsiveness to threat, may lead to a decreased likelihood of taking action to avoid or escape the threat. This model has not yet been empirically tested.

Some researchers have suggested that dissociation, especially, may play an important role in diminished risk recognition. For example, Kluft (1990) found strongly decreased ability to recognize and react to danger cues among 18 female incest victims with dissociative disorders, all of whom had been sexually exploited by one or more psychotherapists, and 78% of whom had also been raped as adults. Waller, Quinton, and Watson (1995) found that among 105 non-clinical women who took part in a computerized word identification task, although threatening words were perceived equally well regardless of women’s level of dissociation, women with higher levels of dissociation took longer to identify threatening words.
However, several empirical studies have cast doubt on the theorized dissociation/risk recognition connection. For example, both Sandberg (1996) and Wilson et al. (1999) found that dissociation did not contribute to increased latency in recognizing danger cues while listening to an audio tape of a potential assault, although the latter authors noted several possible reasons why dissociation was not related to poorer risk recognition in their study, including possible insensitivity of the measure used to assess dissociation (the Dissociative Experiences Scale), the possibility that the analogue task was not powerful enough to elicit a dissociative response, and the fact that they did not directly measure dissociation during the decision latency testing procedure itself.

Risk recognition models of revictimization rely primarily on dissociation as the mechanism by which a failure of risk recognition occurs. Although there is some empirical evidence to support both poor risk recognition as a factor in revictimization and dissociation as a mechanism leading to poor risk recognition, neither concept has been fully supported as of yet.

*Unresolved trauma.*

Models of revictimization related to unresolved trauma stem from Freud's (1920/1961) conceptualization of the repetition compulsion, in which repression of the traumatic aspects of an experience leads to a compulsion to repeat the repressed experience in the present rather than simply remembering it as something that happened in the past. This unconscious repetition is theorized to take many different forms. Terr (1983) described a child victim of the Chowchilla (Calif.) bus kidnapping, who afterwards repeatedly played a game called "bus driver," in which all the passengers
would get safely off the bus. In more extreme forms, victims may reenact their traumatic experiences by victimizing themselves through self-harm, victimizing others, or by unconsciously placing themselves in situations in which they are likely to be revictimized (van der Kolk, 1989).

Whatever the intensity and specific form of the reenactment, however, its true purpose, according to the most prevalent interpretation of this model, is to attempt to obtain mastery of the original traumatic experience (van der Kolk, 1989). Some psychoanalytic writers have suggested there is a second component of the process in which aggressive drives of the id push the victim to reproduce certain types of painful stimuli, even as the ego strives to master the event (Bibring, cited in Horowitz, M. J., 1983; Freud, 1920/1961; Hartmann, cited in Horowitz, M. J., 1983), while others add the suggestion that the superego is also involved by promoting self-punishment by revictimization (Waelder, cited in Horowitz, M. J., 1983). The tragedy of such repetition, according to these authors, is that while it may indeed provide temporary relief, it ultimately leads to an ongoing sense of being helpless, bad, and out of control (van der Kolk, 1989), and revictimization that can result leads to further negative consequences, as noted earlier.

Levy (1998) notes that the striving for mastery is only one of several possible interpretations of the repetition compulsion. He suggests that reenactment may alternatively result from maladaptive learning processes, the use of rigid defenses, or general deficits in ego strength resulting from the original trauma. Laub and Auerhan (1993) add the suggestion that reenactment may take place through a transference
phenomenon, while van der Kolk (1989), in contrast, suggests that an important factor in the so-called repetition compulsion may be a physiological addiction to the endorphins released during a traumatic experience.

A comprehensive theory of unresolved trauma has been put forward by Horowitz (1986). Horowitz notes that compulsive repetitions of traumatic events can take the form of recurrent thoughts, feelings, and images – as noted in the intrusive symptoms of PTSD – as well as behavioral reenactments ranging from compulsive verbalizations of the event to recurrent interpersonal patterns of behavior and physiological responses. Horowitz relates these repetitions to an oscillating cycle of denial and intrusion following trauma, which the survivor may attempt to manage through a variety of maladaptive avoidant behaviors, including suicide, the use of drugs, or a frenzy of counterphobic activity. Horowitz cites Schur in relating such behavior to the Zeigarnik effect – the tendency to remember incomplete tasks better than completed tasks – and suggests that trauma survivors experience a cognitive completion tendency in which the traumatic event remains in active memory until it is fully processed into inner schemata of the world and the self through assimilation and accommodation, at which time it is incorporated into long term memory.

Herman (1997) has noted that although the repetition compulsion may indeed occur unconsciously, sometimes in service of a fantasy of undoing the trauma or changing its outcome, it may at times occur consciously, and may in fact at times be adaptive. Herman cites the case of a combat veteran who put his felt need to reenact his traumatic experiences to productive use as a paramedic. However, Herman notes that
even when such repetitious actions are voluntarily chosen, they usually feel involuntary. She cites Russell as suggesting that emotional, not cognitive, experience drives the repetition compulsion, as the victim attempts to master the overwhelming affect of the traumatic event.

**Unresolved Trauma and Mechanisms of Revictimization**

Whatever the key factors that lead someone to reenact a previous traumatic experience, such reenactments may have numerous paths leading to revictimization. Either a search for mastery or a physiological addiction to trauma might lead to a victim's actively seeking out dangerous situations, while any of the other posited mechanisms could lead to revictimization through the more passive means of not removing one's self from danger.

Among others, Finkelhor and Browne (1985), Gidycz et al. (1993), and Cloitre (1994) have considered specific ways in which the unresolved effects of trauma might lead to revictimization. Finkelhor and Browne (1985) have posited a model wherein the consequences of sexual victimization can be broadly categorized into traumatic sexualization, betrayal, stigmatization, and powerlessness. These unresolved issues lead to feelings of low self-esteem and sexual confusion, which in turn lead to behavioral consequences of isolation and promiscuity, two behavioral patterns that have been shown to be related to increased victimization (Ellis et al., 1992; Koss & Dinero, 1989; Wyatt et al., 1992).

In a prospective study of 857 college women, Gidycz et al. (1993) used a retrospective/prospective design and a path analysis model to investigate whether
unresolved trauma from a previous victimization, in the form of increased depression and anxiety, predicted future victimization. They found that increased depression and anxiety at the start of an academic quarter were predicted by child and adolescent sexual victimization, and that depression and anxiety at the start of the quarter, along with child or adolescent sexual victimization, predicted victimization over the course of the quarter. Gidycz et al. (1993) suggested that as a woman experiences feelings of betrayal and powerlessness as a result of sexual abuse or assault, she becomes more likely to experience increased depression, reduced self-efficacy, and reduced coping skills. These deficits, in turn, may lead to an increased risk of revictimization, as the victim's perception that she is powerless against an attacker may lead her to do little to attempt to avoid or resist an attack.

Cloitre (1994) has related unresolved trauma to revictimization through Safran's interpersonal schema model. Safran proposes that cognitive schemas, developed out of a child’s attachment history, guide the child in her future interpersonal interactions. According to Cloitre, these schemas can lead an abused child to associate abuse with caring and love. As the child matures, she will readily accept relationships in which she is abused and find it difficult to form non-abusive relationships, thereby increasing her risk of revictimization.

*Unresolved Trauma and Meaning*

A number of researchers have suggested that disturbances in interpersonal trust and attributions, or schemas, about the self and the world may play an important role in unresolved trauma.
Janoff-Bulman's "assumptive world" theory (1989) suggests that symptomatology resulting from trauma occurs secondary to the shattering of underlying assumptions about the self and the world caused by the traumatic event. Specifically, Janoff-Bulman theorizes that disturbances in three major areas of belief – belief in the benevolence of the world, the meaningfulness of the world, and the worthiness of the self – are related to post-traumatic symptomatology. Using the World Assumptions Scale which she developed to measure such disturbances in schemas, Janoff-Bulman (1989) has found that even years after a traumatic experience, victims had more negative assumptions and more depression than nonvictims, and that positive reinterpretations of the traumatic event were associated with less symptomatic impact. In a further explication of the importance of meaning, Janoff-Bulman (1989) has described how the perception that one's victimization served some purpose is related to an increased belief in an orderly, comprehensible world, and in turn to less post-traumatic symptomatology.

McCann and Pearlman (1990) have developed Constructivist Self Development Theory to describe how a specific victim's experience may result from the interaction between one's self, including her psychological needs and cognitive schemas, and the traumatic event. McCann and Pearlman (1990) suggest that disruptions in eight schemas – frame of reference, safety, trust and dependency, independence, power, esteem, and intimacy – are likely to occur as a result of trauma. These researchers suggest that resolution of trauma involves the accommodation of the trauma-caused disruptions of these schemas into one or more of several possible outcomes, including several previously described by Koss and Burkhart (1989) – the healthy questioning of one's
beliefs about the meaning and direction of her life, a newly discovered ability to maintain a sense of competence under stress, an increased sensitivity to horror and dehumanization, and the development of strong convictions – as well as increased spiritual growth, resiliency, and appreciation for life. McCann and Pearlman (1990) have developed the Traumatic Stress Institute Belief Scale to measure the status of these schemas in trauma victims.

Resick, Schnicke, and Markway (cited in Resick, 1993) added three scales to McCann and Pearlman’s (1990) scale, negative beliefs about rape, self-blame, and undoing, in creating the Personal Beliefs and Reactions Scale. Among female rape survivors, Resick and her colleagues (cited in Foa, Ehlers, Clark, Tolin, & Orsillo, 1999) found that negative beliefs concerning self-blame, undoing, and safety were related to intrusive symptoms of PTSD; negative beliefs concerning trust, self-blame, undoing, and intimacy were related to avoidant symptoms of PTSD; and negative beliefs concerning power and safety were related to arousal symptoms of PTSD.

Over the past decade, Roth and colleagues (Lifton, 1996; Newman, Riggs, & Roth, 1997; Roth & Batson, 1997; Roth & Lebowitz, 1988; Roth, Lebowitz, & DeRosa, 1997; Roth & Newman, 1993) have been developing the Thematic Adaptation Scale to measure degree of post-traumatic resolution of seven affect categories and eight schema categories, each with six dimensions. The affect categories measured are helplessness, rage, fear, loss, shame, guilt, and diffuse affect (defined as intense emotions that are nonspecific), and the dimensions along which they are measured represent increasing awareness of the affect, its association with the traumatic event, and the willingness to
deal with the affect. Resolution implies that the victim has come to terms with the reality of the event and is no longer having to deal with the affect. The cognitive schemas measured by Roth's system are benign world, meaningful world, people trustworthy, self-worthy, self-blame, reciprocity, alienation, and legitimacy; once again, the dimensions measure the degree to which the victim has awareness of the trauma's effect on her cognitive schemas and her attempt to resolve the discrepancy between her previous and current beliefs, or to change her schemas that are maladaptive.

Although Roth and her colleagues have not yet been able to develop a reliable version of the Thematic Adaptation Scale (Roth et al., 1997), and although her coding manual is available only to her own colleagues and students (Roth, personal communication), she and her colleagues have found some intriguing results in their studies to date. For example, Newman et al. (1997) found that among sexual assault survivors, the degree of thematic resolution predicted post-traumatic symptomatology, and De Rosa, Fischer, & Roth (cited in Roth et al., 1997) found that among survivors of a fire, the only significant predictor of chronic PTSD was the number of unresolved trauma themes each survivor held.

Foa and her colleagues have proposed that two dysfunctional beliefs mediate the development of PTSD: the belief that the world is completely dangerous, and that oneself is totally incompetent (Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). Working with Ehlers and colleagues, who have found preliminary evidence that negative appraisals of a traumatic event are related to persistent PTSD in assault victims, and that perceptions of permanent negative change and alienation delay recovery from PTSD among rape,
assault, and torture victims (Ehlers et al., 1998; Dunmore, Clark, & Ehlers, 2001), Foa and colleagues have developed the Posttraumatic Cognitions Inventory (Foa et al., 1999). The Posttraumatic Cognitions Inventory measures negative posttraumatic beliefs in nine categories, including general negative view of self, perceived permanent change, alienation from self and others, hopelessness, negative interpretation of symptoms, self-trust, self-blame, trust in other people, and unsafe world. In a preliminary study with 601 adult volunteers, 392 of whom had experienced a traumatic event, Foa et al. (1999) found that these beliefs fell into three factors, negative cognitions about self, negative cognitions about the world, and self-blame, and that all three factors showed moderate to strong correlations with measures of PTSD, depression, and anxiety.

Other researchers have suggested that resolution per se is more important in recovering from trauma and reducing symptoms and revictimization than resolution of specific emotions or schemas. For example, Harvey, Orbuch, Chwalisz, and Garwood (1991) found that among a group of sexual assault survivors, "account-making," as shown by the extent of formal therapy, helpful discussion with others, keeping a diary or journal, and reflecting privately on the event and its implications, was associated with more successful coping and less negative affect. Harvey cited Horowitz's sequential stage model of stress and its emphasis on working through a trauma, and theorized that such account making recasts one's sense of vulnerability within a structure of the meaning of the trauma – that is, why it occurred, what impact it has had, and what possible value it may have in the survivor's life. Silver, Boon, and Stones (1983) found that resolution of trauma and increased psychosocial adjustment (including a decrease in recurrent,
intrusive, disruptive symptoms and an increase in social adjustment and self-esteem) were associated with putting an end to one's focus on searching for the meaning of a traumatic event, especially when such an end was brought about by a survivor's having found meaning in the event. Silver et al. (1983) similarly suggested that such resolution was the result of Freud's concept of working through the trauma, in the sense that the victim has cognitively relived and reenacted the experience.

*Unresolved Trauma and Narrative*

The importance of understanding personal narrative as a way of understanding a person's psyche has received increasing attention in recent years (e.g. Polkinghorne, 1988; Sarbin, 1986). From these theoretical beginnings, narrative has come to be seen as a useful tool for understanding meaning, especially in clinical work (e.g., Goncalves, Korman, & Angus, 2000; Omer, 1994; White & Epston, 1990). Omer (1994), for example, offers a typology of flawed narratives associated with psychopathology, including patchy and chaotic narratives, in which crucial episodes or causal links are omitted, reflecting a breakdown in the unity or meaningfulness of the narrator's life; closed narratives, in which the narrator's stories are framed in such a way as to eliminate positive options, and meaningless narratives, which reflect inauthenticity, triviality, or absurdity rather than coherent and meaningful life stories.

During the past decade as well, several lines of trauma theory and research have converged to emphasize the importance of narrative, both in the establishment and maintenance of self-concept, and, more specifically, in determining a person's recovery status following trauma.
Herman (1997) has noted, from clinical studies, that original narratives of trauma are often repetitious, stereotyped, and emotionless, and cites Mollica as calling them "prenarrative" in form (p. 175). Herman has found that one key to recovery is for the trauma survivor to reconstruct her trauma story, including the context of her pre-trauma life, and to incorporate it into her life story, such that telling the story of the traumatic event no longer arouses intense feeling and vivid sensations.

In an ongoing series of studies, Pennebaker and his colleagues have reliably found that writing about a traumatic event – that is, placing it into a narrative structure – leads to improvements in both mental and physical health (Harber & Pennebaker, 1992; Pennebaker, Mayne, & Francis, 1997; Pennebaker & Seagal, 1999). While Pennebaker's original studies (Pennebaker & Beall, 1986; Pennebaker, Kiecolt-Glaser, & Glaser, 1988) showed that the simple act of writing about a traumatic event led to such improvements, later studies have identified specific components of the process that appear to be especially beneficial. Among these are an increase in the coherency of the narrative account, the use of more words representing insight (e.g., realize, understand) or causality (e.g., because), and the use of more positive-emotion words (e.g., happy) and a moderate number of negative-emotion words (e.g., sad) (Pennebaker et al., 1997; Pennebaker & Seagal, 1999). Pennebaker (1997) believes that the act of constructing a narrative about a traumatic event changes the way a person cognitively organizes the trauma and responds affectively to such cognitions, integrating thoughts and feelings into a coherent and meaningful representation of the experience; this in turn facilitates the summarization and storage of memories of the event, allowing the victim to experience the event as
something that happened in the past and which can now be more easily managed and ultimately forgotten, rather than reappearing through flashbacks or other forms or reexperiencing. The work of Pennebaker and his colleagues has focused on written rather than verbal narrative. In addition, although Pennebaker’s studies have included examinations of the effect of constructing narrative on mental health, most of these studies have focused much more on physical health, especially as measured by changes in the immune system.

Foa and her colleagues have likewise conducted a number of studies that have provided empirical evidence for an association between the structure of trauma narratives and a person's degree of recovery from the traumatic experience. These studies, however, have focused on verbal narrative and mental health consequences. Foa and her colleagues have found resolution of trauma, as shown by a decrease in post-traumatic symptoms, to be reflected in an increase in organized thoughts, such as planning and realization, and a decrease in fragmented thoughts, such as unfinished or repeated phrases, during verbal narrative recall of a traumatic event (Foa, 1997; Foa et al., 1995; van Minnen, Wessel, Dijkstra, & Roelofs, 2002; Zoellner, Alvarez-Conrad, & Foa, 2002).

In addition to those researchers working specifically from a trauma perspective, researchers working from a psycholinguistic perspective have also found evidence for an association between aspects of narrative and resolution or unresolution of trauma. McCabe, Capron, and Peterson (1990) found the narratives of injury victims to commonly incorporate a type of narrative structure that expressed an inability to plan or form goals. They called such “reactive sequences” “a hallmark of victimization” (p. 151).
Both Stein, Sheldrick, and Broaders (1999) and Baerger and McAdams (1999) have found that different aspects of narrative relate to psychological wellbeing. The former have found that trauma survivors whose narratives focus on unattainable goals or expressed beliefs regarding inability to cope have greater levels of depression than those whose narratives focus on the generation of new goals or on positive lessons learned from the traumatic experience, and the latter have found that persons whose life narratives are more coherent in terms of orientation, structure, affect, and integration of disparate elements express greater life satisfaction and less depression than persons whose life narratives are less coherent.

In studying narratives of persons with agoraphobia, Capps and Ochs (1995) have identified several aspects of narrative form and content that are associated with panic, including the use of adverbs indicating the surprising nature of the event, adverbs that indicate sudden shifts in place, person, or tense, and words that indicate a lack of agency on the part of the narrator. Lieblich, Tuval-Mashiach, and Zilber (1998) have used a similar list to identify formal structural markers of emotional or mental disturbance in narratives, including, in addition to the above, the use of deintensifiers (such as "maybe"), the use of repetitions, and breaks in causal or chronological progression. Pillemer, Derochers, and Ebanks (1998), as well, have noted that the use of present tense during a trauma narrative denotes, through its heightened emotionality and sensational-perceptual imagery, that the narrator is effectively reliving the event rather than simply remembering it, and has noted that such features are characteristic of PTSD.
Identifying Coherence in Narrative

In the past two decades, the fields of narrative analysis, psycholinguistics, and grammar have developed a variety of methods for analyzing the structure of narratives, including the coherence of narratives. Among the most widely used are high point analysis (Labov, 1997; Labov & Waletzky, 1967) and episodic or story grammar (Mandler, 1984), both of which provide methods of investigating the coherence of narratives as well as specific structural elements.

High point analysis (Labov, 1997; Labov & Waletzky, 1967) considers a complete, or “classic,” narrative to be one in which the narrative builds to a climax (high point), informs the listener of the narrator's emotional stance toward the event and its meaning for the narrator (evaluation), and resolves the narrative (resolution and coda). Alternatives to the classic structure include ending at the high point, in which no resolution is provided and the narrative is left with an unfinished feeling; leap-frogging, in which the narrative jumps from one event to another within an integrated experience, leaving out major events; and chronological, in which the narrator simply describes a series of events.

Episodic or story grammar (Mandler, 1984; Peterson & McCabe, 1983), on the other hand, focuses less on the presence of an evaluative statement by the narrator and more on causal relationships, recognizing nine different types of narrative structures. These include descriptive sequences, which simply describe characters and their surroundings without describing causal relationships; action sequences, which list actions that are chronologically rather than causally ordered; reactive sequences, in which a set of
events cause other events without any indication of planning; and complete episodes, which describe the aims or goals of a protagonist and express evidence of planning.

In evaluating both types of analysis, Peterson and McCabe (1983) describe neither as sufficient for delineating narrative structure, but find both useful in examining different aspects of narrative coherence. According to Peterson and McCabe, high point analysis offers the benefit of emphasizing the narrator's emotional response to a meaningful event, and expresses the overall coherence of a narrative, but fails to capture information regarding causality. Episodic grammar, on the other hand, captures causality especially well, but ignores evaluative information.

Baerger and McAdams (1999) have developed a system for coding the coherence of life stories which incorporates aspects of both high point analysis and episodic grammar. Baerger and McAdams (1999) used their system, which examines the coherence of the orientation (setting and context), structure (goal-drivenness), affect (evaluation), and integration of disparate elements, context, and relevance of life narratives, to evaluate the narratives of 50 participants drawn from a larger study investigating the meaning of generativity among African-American and Anglo-American adults. Baerger and McAdams (1999) found coherence to be positively associated with greater life satisfaction and less depression. Using a slightly different method that measures the percentage of temporal organization clauses, narrative density (the frequency of subject/verb clauses), and the percentage of orienting, referential (structural), and evaluative clauses within a narrative, Barclay (1996) has found narratives of traumatic events (specifically, the Holocaust) to lack temporal organization.
and evaluation. Barclay states that "the subjective experiences of trauma and atrocity often lack the essential narrative elements needed to give coherence to those experiences." (p. 94).

In studying the construction of coherent life stories, Linde (1993) has found evaluation to be the most important aspect of coherence insofar as it appears essential in transmitting information socially. Causality, in Linde's research, depends on both the narrative sequence of clauses and formal lexical markers, and "adequate" causality further requires that the cause of an event be consistent with the narrator's character. When such consistency is not present, or when the event is expressed as being due to randomness or accident, such as being in the wrong place at the wrong time, or being due to agency of someone other than the narrator, such as following someone else's suggestion, Linde has found that narrators often attempt to manage such "inadequate" causality through such techniques as self-distancing or an appeal to destiny as an explanation for the event.

Working from a perspective that examines narratives as a whole rather than in parts, Gergen and Gergen (1986, 1988) have also examined the importance of coherence in explaining one's life to oneself and to others; they suggest that a complete narrative needs a valued endpoint or goal toward which the story is directed, and that a coherent narrative line is achieved by selecting and ordering events around this endpoint. Gergen and Gergen have used a type of holistic-form analysis, which examines the structure of a narrative as a whole, and in doing so, reveals the narrator's personal construction of his or her experience (Lieblich et al., 1998). Gergen and Gergen (1988) describe the creation of
a coherent self-narrative as “essential in giving one’s life a sense of meaning and direction” (p. 19).

The Present Study

The possible use of disorganization of verbal narratives of trauma as indices of lack of resolution of traumatic experiences has been demonstrated on the level of microstructure of phraseology (Amir et al., 1998; Foa et al., 1995; Zoellner, Alvarez-Conrad, & Foa, 2002) and the level of macrostructure of the narrative as a whole (Barclay, 1996; Baerger and McAdams, 1999). In addition, the attribution of causality or meaning to a traumatic event by the narrator has been demonstrated to be an important component in the resolution of a traumatic experience (Foa et al., 1995; Barclay, 1996; Pennebaker et al., 1997; Pennebaker & Seagal, 1999).

This study examined whether the lack of resolution of trauma resulting from sexual assault, as shown by the disorganization or lack of coherence of sexual assault survivors' narratives of their assault experiences, was associated with an increased risk of revictimization. One hundred forty college women who experienced sexual assault as adolescents or young adults filled out questionnaires related to their assault experiences, current symptomatology, and the meaning they derived from or placed on their experiences. In addition, they took part in individual interviews about their assault experiences in order to obtain current narratives about their experiences. These narratives were analyzed using a combination of methods to determine the degree of organization, or coherence, and meaningfulness evidenced in the narratives. The participants returned at follow-ups of four to six months, at which time they reported on any sexual
victimization experiences that occurred during the follow-up period. This prospective design was intended to show whether unresolved trauma resulting from sexual assault, as indicated by the degree of organization and meaningfulness in a woman's narrative of her sexual assault experience, predicted revictimization.

The first hypothesis was that survivors of sexual assault whose narratives of their assault experiences were more disorganized and less coherent would be more likely to experience sexual revictimization during the course of the study than survivors whose narratives were more organized and coherent.

The second hypothesis was that survivors of sexual assault whose narratives of their assault experiences expressed more meaningfulness to the narrator would be less likely to experience sexual revictimization during the course of the study than survivors whose narratives expressed less meaningfulness.

No specific hypotheses were proposed regarding correlations among various traumatic events and post-traumatic symptoms, as measured by the questionnaires, and revictimization. Rather, the questionnaires used in this study were analyzed to determine whether the different constructs measured by the questionnaires correlated with the same constructs as measured by the narrative analysis, and whether the questionnaires or the narrative analysis were more accurate predictors of revictimization.
Method

Participants

Participants in this study were college women at Ohio University. One hundred forty women completed all segments of the study. These participants were enrolled in psychology courses and had the choice of volunteering to participate in psychology experiments or writing a brief summary of a journal article in exchange for course credit. Students volunteered for participation through sign-up sheets posted on the Ohio University psychology research bulletin board. To decrease volunteer bias, the title of the experiment was “Women’s Social Experiences.”

Those who volunteered filled out several questionnaires including the Sexual Experiences Survey, on which participants reported the types of unwanted sexual experiences they had experienced, as well as details such as number of perpetrators and recency of the incident. Eligibility for the study was determined by indicating one or more sexual victimization experiences involving physical contact since the age of 14. Requiring a higher minimum level of intrusiveness for participation, such as including only those who had experienced unwanted intercourse or attempted intercourse, may have provided a participant population with higher levels of unresolved trauma, but it would have also reduced the number of potential participants. Requiring a lower minimum level of intrusiveness, such as including those who had only experienced someone exposing himself, would have made the participant pool larger, while reducing the typical level of trauma experienced by the participants. The criterion of having
undergone a victimization experience involving physical contact was chosen as a compromise between these two extremes.

Exclusion criteria were a recent sexual assault (within the previous three months), current suicidal ideation, a history of psychiatric hospitalization, or current treatment for a serious psychiatric condition. Participants were be given one credit for their participation in the initial session.

Participants in this study received two additional credits for participating in a one-hour questionnaire session (Session I) and an interview. As the present study also required participation in a follow-up questionnaire session at the end of the subsequent quarter, participants were paid 20 dollars to return for that additional 1-1/2 hour follow-up session (Session II).

Return rate for participants.

A total of 601 female undergraduates participated in the screening sessions for the study. Three hundred eighty-three women were screened during Fall quarter (Cohort One), and 218 women were screened during Spring quarter (Cohort Two).

Of the 383 women screened during Fall quarter, 88 met the eligibility criteria by having had unwanted sexual intercourse between the ages of 14 and 18, and 295 were not eligible. Of those 88 who were eligible, eight women were either disqualified due to meeting exclusionary criteria or declined to participate. The remaining 80 women completed the Session I questionnaire session. Of those, four either declined to participate in the subsequent interview session or did not show up for their interview.
appointments. Of the 76 women who participated in the interview session, one declined to participate in the final follow-up questionnaire session.

Of the 218 women screened during Spring quarter, 79 met the eligibility criteria, and 139 were not eligible. Of the 79 who were eligible, six either declined to participate in the interview session or did not show up for their interview appointments. Of the 73 women who participated in the interview session, four declined to participate in the follow-up questionnaire session.

Of the 167 women who were eligible, 153 completed the questionnaires at Session I, 149 completed the interview, and 144 completed the follow-up questionnaire session at Session II.

A series of independent sample t-tests, Mann-Whitney U-tests, and Chi-square tests were conducted to examine whether there were any differences between the 144 women who completed the study and the 23 women who were eligible but who either did not participate or did not complete the study. There were no differences between the two groups as to age, year in school, ethnicity, religion, age of first consensual sexual experience, sexual orientation, marital status, dating status, sexual history, number of consensual sexual partners, personal alcohol use, date’s alcohol use, frequency of intoxication, or worst sexual assault experience.

Another series of tests were conducted to examine whether there were any differences between the 144 women who completed the study and the five women who completed the interview but did not complete Time two. There were no differences between the two groups as to year in school, ethnicity, religion, age of first consensual
sexual experience, sexual orientation, marital status, dating status, sexual history, number of consensual sexual partners, personal alcohol use, date’s alcohol use, or frequency of intoxication. There were statistically significant differences between the two groups as to age, \( X^2 (5, N = 140) = 18.40, p < .01 \) and worst sexual assault experience, \( X^2 (5, N = 140) = 16.72, p < .01 \). The difference in regard to age was due to the fact that none of the women who did not complete the study were 19 years old, which was the modal age of those who did complete the study. In regard to worst sexual assault experience, the women who did not complete the study generally had less severe assault experiences than the women who did complete the study, with none of the former indicating they had been forced into unwanted sexual intercourse.

Of the 149 women who completed the interview, there were no differences on any of the demographic measures, sexual history measures, or alcohol use measures between women from Cohort One and women from Cohort Two. Of the 144 women who completed the entire study, there were also no demographic differences between the women from Cohort One and the women from Cohort Two. Cohorts One and Two did not differ as to the percentage of participants who completed the study.

There were no significant differences between the two cohorts on any of the questionnaire or narrative independent variables related to the study’s hypotheses.

Among the 144 women who completed all three portions of the study, several failed to complete major portions of one or more questionnaire. A series of independent sample t-tests and Chi-square tests showed that there were no significant differences between those women who completed all sections of the questionnaires and those that did
not on any of the demographic variables or the dependent variables. Therefore, it was
decided to eliminate those participants who failed to complete one or more entire
measures during the follow-up questionnaire session. This resulted in data from 140
participants being available for analysis. Overall, of 167 eligible women, 83.8%
completed all portions of the study and were used in the analysis.

Visual inspection of the data revealed no apparent pattern to the remaining
missing data points, either within or across subjects. Only one specific questionnaire
answer was missing from more than one subject’s data (Dissociative Experiences Scale
Revised – Version II at Time 1, Number 41, missing twice) and no subject was missing
more than one data point. Because the remaining missing data points appeared to be
randomly distributed, they were imputed using the mean substitution method. This was a
conservative method, as no subject whose data were imputed in this way scored more
than one standard deviation below the mean for the remaining data in the measure that
was being adjusted. After imputation, a series of t-tests on the variables to which imputed
data had been added indicated no significant difference between means with or without
the imputed data.

A test for outlying data points was conducted by converting all scores to standard
scores and looking for resulting standard scores greater than three (Hair, et al., 1995).
Only two subjects had resulting data points greater than three. One subject scored 3.067
on the Post Traumatic Conditions Inventory during time one. Another subject scored
3.067 on the PCI, 3.591 on the Impact of Events Scale-Revised, which measured
symptoms of Post Traumatic Stress Disorder, and 3.259 on the Peritraumatic Dissociative
Experiences Questionnaire. An examination of this subject’s remaining data revealed that this subject had high scores on the Sexual Experiences Survey, indicating a history of severe sexual assault, and that her most recent assault experience had occurred recently. This subject also reported during her interview that her level of distress was eight on a scale of one to ten, with ten being the highest. Her questionnaire scores, therefore, although high, were deemed to be valid data and were included in the final analysis (Hair, et al., 1995).

Demographics.

The women who participated in the study were predominantly Caucasian (95.7%), heterosexual (99.3%), and had never been married (97.1%). Slightly more than two-thirds were in their freshman year at college (66.9%), 23.6% were sophomores, and the rest were juniors, seniors, and one graduate student. See Table 1 for demographic details of the participants.

Slightly more than half of the participants described themselves as being in a casual dating relationship (55.0%). More than one-third described themselves as being in a long-term relationship (38.6%) or engaged to be married (1.4%). A large majority had engaged in consensual sexual intercourse (88.6%), and the modal age at which this occurred was 16. Most had had one (20.0%), two (16.4%), or three (16.4%) consensual sexual partners, although a significant minority reported having seven or more sexual partners (12.9%). See Table 2 for details of participants’ sexual history.
Table 1

Demographic Summary of Participants

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>70</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>19</td>
<td>48</td>
<td>34.3</td>
<td>84.3</td>
</tr>
<tr>
<td>20</td>
<td>16</td>
<td>11.4</td>
<td>95.7</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>.7</td>
<td>96.4</td>
</tr>
<tr>
<td>22</td>
<td>3</td>
<td>2.1</td>
<td>98.6</td>
</tr>
<tr>
<td>over 22</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
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<th>Year in school</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
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<tr>
<td>freshman</td>
<td>70</td>
<td>67.9</td>
<td>67.9</td>
</tr>
<tr>
<td>sophomore</td>
<td>33</td>
<td>23.6</td>
<td>91.4</td>
</tr>
<tr>
<td>junior</td>
<td>7</td>
<td>5.0</td>
<td>96.4</td>
</tr>
<tr>
<td>senior</td>
<td>4</td>
<td>2.9</td>
<td>99.3</td>
</tr>
<tr>
<td>graduate</td>
<td>1</td>
<td>.7</td>
<td>100.0</td>
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</tbody>
</table>
Table 1 Continued

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<th>Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
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<tr>
<td>Caucasian</td>
<td>134</td>
<td>95.7</td>
<td>95.7</td>
</tr>
<tr>
<td>African-American</td>
<td>3</td>
<td>2.1</td>
<td>97.9</td>
</tr>
<tr>
<td>Asian-Pacific</td>
<td>1</td>
<td>.7</td>
<td>98.6</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
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<table>
<thead>
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<th>Religion</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
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<tbody>
<tr>
<td>Catholic</td>
<td>51</td>
<td>36.4</td>
<td>36.4</td>
</tr>
<tr>
<td>Protestant</td>
<td>32</td>
<td>22.9</td>
<td>59.3</td>
</tr>
<tr>
<td>Jewish</td>
<td>4</td>
<td>2.9</td>
<td>62.1</td>
</tr>
<tr>
<td>Nondenominational</td>
<td>14</td>
<td>10.0</td>
<td>72.1</td>
</tr>
<tr>
<td>None</td>
<td>19</td>
<td>13.6</td>
<td>85.7</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>14.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Sexual orientation</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual</td>
<td>139</td>
<td>99.3</td>
<td>99.3</td>
</tr>
<tr>
<td>Bisexual</td>
<td>1</td>
<td>.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 1 Continued

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never Married</td>
<td>136</td>
<td>97.1</td>
<td>97.1</td>
</tr>
<tr>
<td>Co-Habitating</td>
<td>1</td>
<td>.7</td>
<td>97.9</td>
</tr>
<tr>
<td>Married</td>
<td>3</td>
<td>2.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dating status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not date</td>
<td>4</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Date casually</td>
<td>77</td>
<td>55.0</td>
<td>57.9</td>
</tr>
<tr>
<td>Long term relation</td>
<td>54</td>
<td>38.6</td>
<td>96.4</td>
</tr>
<tr>
<td>Engaged</td>
<td>2</td>
<td>1.4</td>
<td>97.9</td>
</tr>
<tr>
<td>Married</td>
<td>3</td>
<td>2.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 2

Sexual History of Participants

<table>
<thead>
<tr>
<th>Consensual sexual intercourse</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>124</td>
<td>88.6</td>
<td>88.6</td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>11.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of first consensual sexual experience</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not apply</td>
<td>16</td>
<td>11.4</td>
<td>11.4</td>
</tr>
<tr>
<td>13 or younger</td>
<td>2</td>
<td>1.4</td>
<td>12.9</td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>10.7</td>
<td>23.6</td>
</tr>
<tr>
<td>15</td>
<td>20</td>
<td>14.3</td>
<td>37.9</td>
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<td>16</td>
<td>37</td>
<td>26.4</td>
<td>64.3</td>
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<td>17</td>
<td>26</td>
<td>18.6</td>
<td>82.9</td>
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<tr>
<td>18</td>
<td>18</td>
<td>12.9</td>
<td>95.7</td>
</tr>
<tr>
<td>19 or older</td>
<td>6</td>
<td>4.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 2 Continued

<table>
<thead>
<tr>
<th>Number of consensual sexual partners</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>17</td>
<td>12.1</td>
<td>12.1</td>
</tr>
<tr>
<td>1</td>
<td>28</td>
<td>20.0</td>
<td>32.1</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>16.4</td>
<td>48.6</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>16.4</td>
<td>65.0</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>10.0</td>
<td>75.0</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>6.4</td>
<td>81.4</td>
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<td>6</td>
<td>8</td>
<td>5.7</td>
<td>87.1</td>
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<tr>
<td>7 or more</td>
<td>18</td>
<td>12.9</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Data Collection

Questionnaires.

The following measures were used during the questionnaire sessions of the study.

Demographics Questionnaire. This was a brief questionnaire used to collect relevant personal information regarding basic participant characteristics such as age, ethnicity/race, religious background, sexual orientation, drinking habits, and consensual dating behavior. (See Appendix B.)

Sexual Experiences Survey. The Sexual Experiences Survey (Koss & Oros, 1982) assessed experiences of sexual aggression in men and sexual victimization in women from the age of 14 on. Typical of the items that reflect extreme forms of victimization in women is the following: "Have you ever had sexual intercourse when you didn't want to because a man threatened you or used some degree of force – twisting your arm, holding you down, etc. – to make you?" The internal consistency for women is .74, and the percent agreement between items administered one week apart was 93%. As evidence for the construct validity of the Sexual Experiences Survey, the Pearson correlation between a woman's level of victimization based on her responses to an interviewer and her responses on the Sexual Experiences Survey was .73. (See Appendix C.)

Traumatic Events Questionnaire. This 12-item questionnaire, adapted from the Posttraumatic Stress Diagnostic Scale (Foa, 1995), was used to assess whether participants have experienced or witnessed traumatic events other than unwanted sexual experiences in adolescence. Included are such items as accidents, natural disasters, physical abuse or assault, or life-threatening illnesses. Because participants answered the
Sexual Experiences Survey regarding adolescent unwanted sexual experiences, questions relating to sexual assault as an adolescent were eliminated as redundant. Because child physical and emotional abuse have been found to be risk factors for sexual victimization (Acierno et al., 1999; Ellis et al., 1982; Finkelhor, 1997; Sanders & Moore, 1999), questions relating to those experiences were added. (See Appendix D.)

Impact of Event Scale-Revised. The Impact of Event Scale-Revised (Weiss & Marmar, 1997) used 22 questions to assess 14 of the 17 DSM-IV symptoms of Post-Traumatic Stress Disorder (PTSD), including subjective experiences of intrusion, avoidance, and hyperarousal resulting from a specific traumatic event. Participants are asked to think about the most stressful event they have ever experienced (or, in the case of this study, their most stressful sexual victimization experience) and to state how often each symptom was true for them over the past 7 days on a 4-point Likert-type scale, with possible responses ranging from "Not at all" to "Extremely." Weiss and Marmar (1997) found evidence of good internal consistency, including Cronbach's α values for subscale scores ranging from .79 to .92 in various samples and six-month test-retest reliability correlations for subscale scores ranging from .89 to .94. Convergent validity is supported by a correlation of .77 between IES-R scores and reexperiencing scores on the Posttraumatic Stress Disorder Scale and a correlation of .69 between IES-R scores and avoidance cluster scores on the Posttraumatic Stress Disorder Scale. Lauterbach, Hayes, and Pavlicek (1998) reported that the IES-R discriminated between persons who did and did not experience a trauma and that IES-R subscale scores were highly intercorrelated.
with corresponding subscale scores on the Purdue PTSD Scale-Revised. (See Appendix E.)

Peritraumatic Dissociative Experiences Questionnaire – Self-Report Version. The Peritraumatic Dissociative Experiences Questionnaire – Self-Report Version (Marmar, Weiss, & Metzler, 1997) used 10 questions to assess the severity of psychological dissociation at the time of a sexual abuse or assault experience. Participants are asked to endorse such items such as, "I had moments of losing track of what was going on – I 'blackened out' or 'spaced out' or in some way felt that I was not part of what was going on," on a 5-point Likert-type scale, with possible responses ranging from "Not at all true" to "Extremely true." Several studies have investigated the use of the Peritraumatic Dissociative Experiences Questionnaire with male and female Vietnam veterans, emergency services workers, and earthquake survivors, and have found the device to be internally consistent and strongly associated with measures of traumatic stress responses, general dissociative tendencies, and level of stress exposure (Marmar et al., 1994; Marmar, Weiss, Metzler, Ronfeldt, & Foreman, 1996; Tichenor, Marmar, Weiss, & Metzler, 1996; Weiss, Marmar, Metzler, & Ronfeldt, 1995). (See Appendix F.)

Dissociative Experiences Scale Revised – Version 2. The Dissociative Experiences Scale Revised – Version 2 (Coe, Dalenberg, Aransky, & Reto, 1995) assessed current dissociative experiences; that is, the scale measured dissociation at the present time rather than at the time of the traumatic experience. The scale used 41 questions to assess how often various dissociative symptoms occurred to the participant, including amnesia, depersonalization, derealization, absorption, and imaginative
involvement. Each question was answered on a 6-point scale, with answers ranging from "Never" to "At least once a month." The scale was developed as a revision of the widely used Dissociative Experiences Scale (Carlson & Putnam, 1993), on which participants were required to indicate the frequency of 28 different dissociative symptoms by circling a number on an 11-point scale ranging from 0 = "Never" to 100 = "Always." Alternate form reliability between this scale and the original Dissociative Experiences Scale had been shown to be greater than .90 (Coe et al., 1995; Duvenage & Dalenberg, 1993). (See Appendix G.)

Posttraumatic Cognitions Inventory. The Posttraumatic Cognitions Inventory (Foa et al., 1999) was a measure of trauma-related thoughts and beliefs. Participants were asked to answer 36 items regarding their thoughts about a traumatic experience, including such items as "People can't be trusted" and "I have no future." Each item is answered on a 7-point scale ranging from 1 = "Totally disagree" to 7 = "Totally agree." In an initial study (Foa et al., 1999), the scale was administered to 601 volunteers, including 392 persons who had experienced a traumatic event, 170 of whom had been diagnosed with moderate to severe posttraumatic stress disorder (PTSD). Principal components analysis showed that the scale had three factors, Negative Cognitions About Self, Negative Cognitions About the World, and Self-Blame. Internal consistency was excellent, with Cronbach's alphas for the three subscales and total ranging from .86 to .97. All three subscales and the total score correlated substantially with PTSD severity, and all three subscales and the total score showed good sensitivity and high specificity in identifying participants with and without PTSD. (See Appendix H.)
Questionnaire sessions were held in classrooms in the Department of Psychology. During the Screening Session, the facilitator passed out and read the consent form (see Appendix I). All participants were given an identification number which appeared on their scantron sheets and on a master list. This master list was kept in a locked filing cabinet in a locked office until each subsequent part of the study. The facilitator then passed out the Demographics Questionnaire, the Traumatic Events Questionnaire, and the Sexual Experiences Survey (Adolescent and Adult Versions). Participants were given one class credit for participating in the initial session. Following the initial session, those participants who were eligible were contacted by telephone and asked to participate in the remaining portions of the study.

During the second questionnaire session of the study, participants once again filled out a consent form. Participants were given their subject numbers and instructed to write them on their scantron sheets. Participants completed the Impact of Event Scale-Revised, Peritraumatic Dissociative Experiences Questionnaire, Dissociative Experiences Scale Revised – Version 2, and Posttraumatic Cognitions Inventory. After completing all questionnaires, participants were given one additional class credit and signed up for a subsequent interview.

Interview.

Within two weeks of completing the second questionnaire study, each participant took part in an individual, face-to-face interview concerning her adolescent sexual assault experience. The interviews were conducted by a female graduate student from the Department of Psychology in a private office in the Department of Psychology, and were
audiotaped. Participants were identified on tape only by their subject numbers. The interview was designed to obtain each participant’s impromptu narrative of her sexual assault experience, as well as its context and meaning for the participant. Each participant was asked, "Please tell me about your previous sexual assault experience, from its start to its finish, using as much detail as you are comfortable using." If a participant had more than one sexual assault experience, she was asked to talk about her most significant experience. Once a participant began her narrative, the only prompts that were given were neutral statements acknowledging the participant's utterances. Questions regarding length, detail, or other such issues were answered, "it's up to you." After each participant finished telling about her sexual assault experience, she was then asked, "How has this experience impacted your life?" Once again, each participant was free to choose where to begin and end her answer to the question and how much detail to provide. Following this, each participant was asked to rate her immediate level of distress on a scale of one to ten, with ten being extremely distressed and one being not at all distressed. Participants were also asked whether they had reported the experience to the police and whether they considered their experience to constitute the crime of rape, sexual assault but not a crime, or a misunderstanding; however, these last two questions were not considered in this study but were used by the interviewer in a different study.

Following the interview, the participant was again given one class credit. A debriefing statement was given at the conclusion of each interview, and participants were informed that they would be contacted at a later date to participate in Session III, which was scheduled to occur approximately four to six months later.
In the event that a participant experienced apparent significant distress during the interview, the interview was paused and the interviewer assessed whether the participant should receive immediate debriefing; if immediate debriefing or other intervention was called for, the interviewer initially provided such debriefing herself and gave the participant referral information for further assistance, then informed the study’s faculty advisor. Only one interview was terminated prematurely due to participant distress, and that participant declined further assistance following the termination of the interview.

Approximately four to six months following their initial screening, participants returned for a final follow-up session. Each participant was given her subject number and directed to write it on a scantron sheet. They again filled out a consent form and the Sexual Experiences Survey, which asked about their sexual experiences since the initial screening session. They also filled out the Impact of Event Scale-Revised, Dissociative Experiences Scale Revised – Version 2, and Posttraumatic Cognitions Inventory. At the conclusion of this session, participants were paid $20, were thanked for their participation, and were again given a debriefing statement.

Transcription and Coding of Interviews

The audiotaped narratives were transcribed and coded according to the following coding schemes.

Content Analysis Manual. The Content Analysis Manual (Foa et al., 1995) was developed to examine changes in narrative among a group of women undergoing prolonged exposure treatment for PTSD. The Content Analysis Manual described how to code and score a narrative of a traumatic event to formally measure the degree of
organization and fragmentation of the narrative. The Manual divided narratives into utterances guided by the location of subject-verb phrases, then categorized those utterances into thoughts, feelings, sensations, actions, details, dialogue, unfinished thoughts, repetitions, and speech fillers, with the last three categories combined to form an index of fragmentation. Several of the categories were further subdivided; for example, the category, "thoughts," was subdivided into organized thoughts, which was used as an index of organization, as well as disorganized/confused thoughts and desperate thoughts. Scores were converted into percentages in order to account for differences in narrative length.

The coding elements that were used in this study were organized thoughts, disorganized thoughts, and fragmentation. Examples of organized and disorganized thoughts as described by Foa et al. (1995) are as follows:

A. ORGANIZED THOUGHTS - chunks that involve attempts to understand what is happening such as planning, reasoning, hypothesis-setting, decision-making, realizing, etc.

For example, the following excerpts: "If he comes around to the other side of the bathroom/ I'm gonna hold onto both sides of the door/so that he can't come in" and "I decided if I wait until he turns around/then I can have a chance to grab the key/and run away" would be considered as ORGANIZED THOUGHTS.

B. DISORGANIZED/CONFUSED THOUGHTS - chunks that involve confusion or disjointed thinking, such as questioning, expressions of uncertainty, being overwhelmed, ambiguousness, etc.
For example, "I'm thinking why is he doing this to me?/Why is this happening to me?"; "I don't remember doing that"; "I can't believe he's not listening to me" would all be categorized as DISORGANIZED /CONFUSED THOUGHTS. (p.3)

In a study of 14 female sexual assault victims who were undergoing cognitive-behavioral treatment for PTSD, Foa et al. (1995) found that over the course of 18 weeks of treatment, the percentage of organized thoughts and utterances expressing thoughts and feelings increased, and that an increase in organization was positively correlated with a reduction in depression. Although the percentage of fragmentation in the narratives did not decrease significantly from pre- to post-treatment, reduction in fragmentation was positively correlated with a reduction in anxiety.

Foa et al. (1995) demonstrated inter-rater reliability of .93 for division of narratives into utterances, and inter-rater reliability of .94 for coding of the utterances. (See Appendix I).

During the course of this study, several additional rules were added to the Content Analysis Manual to accommodate the typical speech patterns of the participant population. These changes and the rationale for making them are described in detail in the subsequent section on reliability. (See Appendix J).

Life Story Coherence Coding System. The Life Story Coherence Coding System (Baerger & McAdams, 1999) was a narrative coding system that quantified coherence in life story narratives. The Life Story Coherence Coding System described components of four criteria, Orientation, Structure, Affect, and Integration, each of which was scored on
a 7-point scale from 1 = Very Low to 7 = Very High. Because these scores were rankings and not categories, the raw numbers were not converted into percentages. Examples of criteria components included "These elements are presented in a causally and temporally logical way" (Structure) and "The narrative uses emotion in order to make this evaluative point, employing explicit statements of feeling in order to create an affective tone or signify emotional meaning" (Affect). In a study of 50 participants drawn from a larger sample investigating the meaning and manifestations of generativity among African-American and Anglo-American adults, Baerger and McAdams (1999) coded 400 life story episodes and reported that inter-rater reliability in terms of total score was .79, with inter-rater reliability for the different subscales ranging from .77 to .84. Logistic regression analysis indicated that Life Story Coherence was significantly negatively correlated with depression ($r = -0.49$, $p < 0.001$) and positively correlated with education ($r = 0.33$, $p < 0.05$). (See Appendix K.)

Causal-Conditional Coding. An additional non-exclusive coding category was added to the Content Analysis Manual (Foa et al., 1995) to indicate the use of causal words (such as "because" or "so") and conditional words (such as "if"), following Pennebaker et al. (1997) and Barclay (1996), who noted the importance of expressions of causation and conditionality in establishing coherence within narratives of trauma. In a series of studies of the impact of written disclosure of trauma on health, Pennebaker et al. (1997), for example, consistently found that an increase in the number of causal words in a narrative was associated with improved physical health, while Barclay (1996) reported that Holocaust survivors’ verbal narratives typically contained only about half as many
causal or conditional (“if”) phrases as the narratives of persons who had not had traumatic experiences. As with codings taken from the Content Analysis Coding Manual, the scores for Causal and Conditional coding were converted into percentages of utterances to control for differences in narrative length. (See Appendix L.)

Transcriptions were made by a professional medical transcriber who had been provided by the principal investigator with the transcription rules to be used, along with six sample transcriptions. The first six transcriptions from the professional transcriber were compared to the transcriptions of the same narratives made by the principal investigator and were found to be in very close agreement, with the exception that the professional transcriber had omitted some notations denoting pauses, laughter, or other interruptions in the narrative. Following a review of the transcription rules, the transcriber was given another six narratives to transcribe. These six transcriptions were compared to the transcriptions of the same narratives made by the principal investigator and were found to be in 100% agreement. Thereafter, approximately one in ten transcriptions was compared with a transcription of the same narrative made by the principal investigator. No substantive disagreements were found.

Transcriptions were then coded according to the Traumatic Narrative Coding Manual (Appendix I). Coding was performed by the principal investigator. The transcriptions were first divided into utterances in which each utterance identified a single thought; these usually included a single subject/verb clause. Each utterance was then identified as belonging to one of the coding categories of the Content Analysis Manual, which were comprehensive and mutually exclusive. Following this, each transcription
was coded a second time using the rules of the Life Story Coherence scale, which coded the coherence of the narrative as a whole. Following this, each transcription was coded a third time using the rules of the Causal Conditional Coding manual, which examined the percentage of utterances that included causal or conditional words and phrases.

**Reliability**

Reliability of the coding of the narratives used in this study was tested by having a second coder, a graduate student in the Department of Psychology, code a portion of the narratives, and comparing those codings with the codings used in the data analysis. Although the second coder also conducted the interviews from which the narratives were derived, both coders worked from identical transcripts of the interviews, and the second coder did not receive transcripts to be coded until several months after conducting the interviews, lessening the chance that her codings could be influenced by verbal or non-verbal behavior of the participants during the interviews. The second coder was also blind to the revictimization status of the participants.

The second coder was initially given copies of the coding manuals to study. After she reviewed the coding manuals, she was then given transcriptions of three narratives, along with a copy of the codings made by the principle investigator, and was instructed to review the coded narratives using the coding manuals and to identify any codings that were not self-evident. After doing so, the second coder then coded the narratives and compared her codings with those made by the principle investigator. The principle investigator and the second coder then compared codings jointly, and where there were discrepancies, discussed the reasons for their particular codings.
As a result of this process, certain additions were made to the Content Analysis Manual clarifying the rules for chunking transcriptions into utterances and for coding certain categories. The most notable addition was made in regard to the coding of Speech Fillers. In the original Content Analysis Manual (Foa, 1995), these were described as “chunks that involve commonly used words or phrases such as ‘ok,’ ‘let me see,’ ‘you know,’ etc. that carry no meaning in and of themselves and are exclusively colloquial.” (p. 8). In reviewing the transcriptions, it became evident that due to the recruitment of participants from undergraduate college psychology classes, many participants had particularly high usage rates of such phrases. To restrict these codings to utterances that met the original intent of the coding category, it was decided to only code utterances as speech fillers if they interrupted an ongoing thought (see Appendix J).

Following this, the second coder was given transcriptions of another five narratives, with instructions to code them on her own. Following that, the principle investigator and the second coder again compared their versions of the codings, and discussed discrepancies with reference to the coding manuals so that the second coder could obtain results that were as consistent as possible with those obtained by the primary investigator.

Thereafter, this process was repeated until the second coder had coded a total of 30 narratives. These narratives ranged in length from 21 to 127 utterances, with a mean length of 51.69 utterances and a standard deviation of 28.92 utterances. These 30 narratives, representing slightly more than 20% of the total number of narratives, were
then compared with the same 30 narratives as coded by the principle investigator to determine interrater reliability.

Examples of utterances coded as Organized Thought by both coders are “I feel like I could have stopped it/if, you know, I had stood up to it more” and “I was the one who put myself in that situation.”

Examples of utterances coded as Disorganized/Confused Thought by both coders are “I don’t even know how we got there” and “I didn’t know what to do.”

For codings using the Content Analysis Manual (Foa, Molnar, & Cashman, 1995), overall interrater reliability was tested using Cohen’s Kappa, an index of agreement which controls for chance agreements between the coders. Kappa ranges from a possible score of 0.0, indicating no agreement, to 1.0, indicating complete agreement between two coders. A Kappa of .80 or above is generally considered acceptable, and Kappas as low as .60 are often considered acceptable for difficult material or when a coding system developed for one specific type of verbal material is tested with a somewhat different type of material (Bartholemew, Henderson, & Marcia, 2000; Smith, 2000). Testing was conducted using the statistical program ComKappa (Robinson & Bakeman, 1998). Scores for Question One alone (“Please tell me about your sexual assault experience”), Question Two alone (“How has this impacted your life?”, and both questions together were K=.79, K=.71, and K=.82, respectively.

Because Cohen’s Kappa only gives an overall index of agreement for a collection of categories and does not indicate agreement for each category specifically, indices of agreement were also calculated for each category in the coding manual, using a formula
developed by McClelland et al. (1953) to control for the frequency with which each category occurs. This formula, \( \frac{2 \times \text{number of agreements}}{\text{(number scored present by first coder)} + \text{(number scored present by second coder)}} \), is considered to be a more accurate index than simple percentage of agreements (Smith, 2000). This index was calculated for each category and for each question individually and together. This corrected percent agreement ranged from a low of zero percent to a high of 100 percent, although these extremes were only found in categories which were very seldom used by either coder. For example, of the five categories in which the coders disagreed with each other 100% of the time, two categories appeared only once out of 2,783 coded clauses. One category appeared three times, one category appeared four times, and one category appeared 11 times. Similarly, the single category in which the two coders achieved 100% agreement appeared only twice.

Of the remaining categories, which appeared from six to 902 times, corrected percent agreement ranged from 53.66% (Negative Feelings) to 84.58% (Unfinished Thoughts). For the five categories that were identified in the study’s hypotheses and which were used in the final logistic regressions, corrected percent agreement was 61.54% (Repetition), 75.98% (Speech Fillers), 76.42% (Organized Thoughts), 76.77% (Disorganized Thoughts), and 84.58% (Unfinished Thoughts). See Table 3.

For codings using the Life Story Coherence Scale, which used means of numbers derived from seven point Likert-type scales rather than categories, interrater reliability was tested by comparing the means of the two raters’ codings. Paired samples t-tests
Table 3

*Interrater Reliability of Coding for Content Analysis Manual*

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Agreements x 2⁵</th>
<th>Number Scored Present b</th>
<th>Corrected Percent Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organized Thoughts</strong></td>
<td>470</td>
<td>615</td>
<td>76.42</td>
</tr>
<tr>
<td><strong>Disorganized/Confused Thoughts</strong></td>
<td>76</td>
<td>99</td>
<td>76.77</td>
</tr>
<tr>
<td><strong>Desperate Thoughts</strong></td>
<td>0</td>
<td>1</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Positive Feelings</strong></td>
<td>0</td>
<td>4</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Negative Feelings</strong></td>
<td>22</td>
<td>41</td>
<td>53.66</td>
</tr>
<tr>
<td><strong>Angry Adaptive Feelings</strong></td>
<td>0</td>
<td>3</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Action – Self</strong></td>
<td>40</td>
<td>59</td>
<td>67.80</td>
</tr>
<tr>
<td><strong>Action – Perpetrator – Threat</strong></td>
<td>66</td>
<td>83</td>
<td>79.52</td>
</tr>
<tr>
<td><strong>Action – Perpetrator – Non-threat</strong></td>
<td>26</td>
<td>33</td>
<td>78.79</td>
</tr>
<tr>
<td><strong>Action – Joint</strong></td>
<td>30</td>
<td>36</td>
<td>83.33</td>
</tr>
<tr>
<td><strong>Action – Other</strong></td>
<td>6</td>
<td>4</td>
<td>66.67</td>
</tr>
</tbody>
</table>
Table 3 Continued

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Agreements x 2&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Number Scored Present&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Corrected Percent Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensation</td>
<td>0</td>
<td>1</td>
<td>0.00</td>
</tr>
<tr>
<td>Detail</td>
<td>683</td>
<td>902</td>
<td>75.72</td>
</tr>
<tr>
<td>Dialog – Perpetrator –</td>
<td>30</td>
<td>45</td>
<td>66.67</td>
</tr>
<tr>
<td>Threat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dialog – Perpetrator –</td>
<td>14</td>
<td>22</td>
<td>63.64</td>
</tr>
<tr>
<td>Non-Threat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dialog – Self –</td>
<td>78</td>
<td>111</td>
<td>70.27</td>
</tr>
<tr>
<td>Perpetrator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dialog – Self – Others</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>Unfinished Thoughts</td>
<td>384</td>
<td>454</td>
<td>84.58</td>
</tr>
<tr>
<td>Speech Fillers</td>
<td>174</td>
<td>229</td>
<td>75.98</td>
</tr>
<tr>
<td>Repetitions</td>
<td>16</td>
<td>26</td>
<td>61.54</td>
</tr>
<tr>
<td>Not Codable</td>
<td>0</td>
<td>11</td>
<td>0.00</td>
</tr>
</tbody>
</table>

<sup>a</sup>(Number of agreements between scorers on presence of category) x 2

<sup>b</sup>(Number scored present by first coder) + (number scored present by second coder)
showed that there were no significant differences between the means of the two raters’ codings for Structure, Evaluation, or Total Life Story Coherence score, although there were significant differences between the two raters’ codings for Orientation and Integration. Correlations between raters’ codings ranged from a low of $r = .49$ for Integration to a high of $r = .63$ for Orientation and Total Life Story Coherence (see Table 4).

Data Analysis

Table 5 lists the variables assessed in this study and the measures used to assess them. Initial analysis consisted of univariate statistics examining the relationship between all variables and any reported sexual victimization at Time 2. Univariate logistic regression analyses were used to determine whether there were differences between the revictimized and non-revictimized groups on any of the independent variables. Variables that were tested included two variables derived from the coding of the interviews, organization/coherence and meaningfulness, as well as several variables measured by questionnaires, including posttraumatic cognitions; posttraumatic symptomatology, including posttraumatic stress disorder, anxiety, depression, and dissociation; aspects of the previous sexual victimization, including child sexual abuse, adolescent sexual assault, and peritraumatic dissociation during such previous victimization; other trauma history; and situational variables, including alcohol or drug use and consensual sexual experience.

Next, a logistic regression model was developed including each variable that was individually significant or nearly so. These variables were entered simultaneously into logistic regression to determine which variables, in the presence of the other variables,
Table 4

*Interrater Reliability of Coding for Life Story Coherence Scale*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Orientation</th>
<th>Structure</th>
<th>Evaluation</th>
<th>Integration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coder 1</td>
<td>Coder 2</td>
<td>Coder 1</td>
<td>Coder 2</td>
<td></td>
</tr>
<tr>
<td>Orientation - Coder 1</td>
<td>1.000</td>
<td>.631**</td>
<td>.526**</td>
<td>.500**</td>
<td>.307</td>
</tr>
<tr>
<td>Orientation - Coder 2</td>
<td>1.000</td>
<td>.340</td>
<td>.612**</td>
<td>.242</td>
<td>.268</td>
</tr>
<tr>
<td>Structure - Coder 1</td>
<td>1.000</td>
<td>.538**</td>
<td>.575**</td>
<td>.238</td>
<td>.571**</td>
</tr>
<tr>
<td>Structure - Coder 2</td>
<td>1.000</td>
<td>.342</td>
<td>.480**</td>
<td>.476**</td>
<td>.372*</td>
</tr>
<tr>
<td>Evaluation - Coder 1</td>
<td>1.000</td>
<td>.515**</td>
<td>.678**</td>
<td>.137</td>
<td>.709**</td>
</tr>
<tr>
<td>Evaluation - Coder 2</td>
<td>1.000</td>
<td>.571**</td>
<td>.430*</td>
<td>.379*</td>
<td>.608**</td>
</tr>
<tr>
<td>Integration - Coder 1</td>
<td>1.000</td>
<td>.487**</td>
<td>.682**</td>
<td>.499**</td>
<td></td>
</tr>
<tr>
<td>Integration - Coder 2</td>
<td>1.000</td>
<td>.326</td>
<td>.524**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4 Continued

<p>| | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total LSC - Coder 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
<td>.625**</td>
</tr>
<tr>
<td>Total LSC - Coder 2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

*Results are significant at $p < .05$.

**Results are significant at $p < .01$. 
### Table 5

**Variables and Measures Tested in the Study**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measure(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Revictimization (criterion variable)</td>
<td>Sexual Experiences Survey (Time 2)</td>
</tr>
<tr>
<td>Narrative Variables</td>
<td></td>
</tr>
<tr>
<td>Organization/Coherence</td>
<td>&quot;Organized Thoughts&quot; scale of Content Analysis Manual</td>
</tr>
<tr>
<td></td>
<td>&quot;Fragmentation&quot; index of Content Analysis Manual</td>
</tr>
<tr>
<td></td>
<td>Life Story Coherence Coding System</td>
</tr>
<tr>
<td></td>
<td>“Orientation” score</td>
</tr>
<tr>
<td></td>
<td>“Structure” score</td>
</tr>
<tr>
<td></td>
<td>“Evaluation” score</td>
</tr>
<tr>
<td></td>
<td>“Integration” score</td>
</tr>
<tr>
<td></td>
<td>total Life Story Coherence</td>
</tr>
<tr>
<td>Meaningfulness</td>
<td>&quot;Disorganized/Confused Thoughts&quot; scale of Content Analysis Manual (reverse scored)</td>
</tr>
<tr>
<td></td>
<td>Life Story Coherence Coding System</td>
</tr>
<tr>
<td></td>
<td>&quot;Evaluation&quot; score</td>
</tr>
</tbody>
</table>
Table 5 Continued

<table>
<thead>
<tr>
<th>&quot;Integration&quot; score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causal/Conditional Coding</td>
</tr>
</tbody>
</table>

### Posttraumatic Cognitions
- Posttraumatic Cognitions Inventory
- Posttraumatic Growth Inventory

### Posttraumatic Symptomatology
- **Posttraumatic Stress Disorder**
  - Impact of Event Scale-Revised
- **Dissociation**
  - Dissociative Experiences Scale
  - Revised – Version 2

### Aspects of Previous Assault
- **Severity of Adolescent Sexual Assault**
  - Sexual Experiences Survey (Time 1)
- **Peritraumatic Dissociation**
  - Peritraumatic Dissociative Experiences Questionnaire
  - Self-Report Version

### Other Trauma History
- **Adult**
  - Traumatic Events Questionnaire
- **Child**
  - Traumatic Events Questionnaire

### Situational Variables
- **Alcohol or Drug Use**
  - Demographic Questionnaire
- **Consensual Sexual Experience**
  - Demographic Questionnaire
were significant in discriminating between those women who experienced any form of sexual revictimization during the follow-up period and those who did not, as well as between those women who experienced revictimization involving unwanted sexual intercourse and those who did not. Following this, a second model was developed and tested in which all of the initially identified variables were entered into logistic regression using backward stepwise procedure, with variable inclusion based on the conditional likelihood rate. The entry of all variables into the model allowed for the model to account for possible suppressor effects which might be missed if only those variables which were independently significant were entered into the final model.

As logistic regression is a special case of chi-square analysis with a dichotomous criterion variable, a conservative method of estimating power, regardless of the number of predictor variables, is to estimate power for a 2 x 2 contingency table, with the understanding that the final logistic regression is then likely to have more power than required due to its accounting for covariation among the variables (Carlson, personal communication). Using this approach, a review of power tables indicated that the $N$ of 140 was more than sufficient to observe a medium effect size, appropriate for a clinical measure, as a total $N$ of 87 is actually required to observe a medium effect size at Power = .80 and $alpha = .05$ (Cohen, 1992). An $alpha$ level of .05 was used for all statistical tests of significance.

Results

Although the statistical method to be used in the final analysis, logistic regression, does not assume normality or equal variance-covariance matrices between groups (Hair,
et al., 1995), a series of normal probability plots were examined to determine normality using the Kolmogorov-Smirnov test. This test revealed that among the independent variables, the most important narrative variables (fragmentation, organization, and life story coherence) were all normally distributed, while the Causal/Conditional variable was slightly negatively skewed. Among the questionnaire measures, the Dissociative Experiences Scale Revised – Version II was normally distributed, the Impact of Events Scale – Revised at Time one and the Posttraumatic Cognitions Inventory at Time one were slightly negatively skewed, and the Peritraumatic Dissociative Experiences Questionnaire at Time one was slightly peaked. Because the departures from normality were small and the final analytic technique is robust, further analyses were carried out using the original data rather than transforming the data. This allows greater comparability between the results of this study and other studies using the same variables (Hair, et al., 1995).

Situational Factors

A large majority of participants drank alcoholic beverages, with most reporting drinking alcohol once or twice a week (36.4%) or one to three times a month (29.3%). A sizeable minority reported drinking three or more times a week (19.3%). The largest percentage reported becoming intoxicated one to three times in a two-month period (29.3%), with the next largest groups reporting becoming intoxicated four to five times in a two-month period (18.6%) and six to ten times in a two-month period (17.1 percent). Fifteen percent stated they never became intoxicated. See Table 6 for details of participants’ alcohol use.
Table 6

*Alcohol Use by Participants in the Study*

<table>
<thead>
<tr>
<th>Frequency of alcohol use</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>never</td>
<td>7</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0-1 x month</td>
<td>14</td>
<td>10.0</td>
<td>15.0</td>
</tr>
<tr>
<td>1-3 x month</td>
<td>41</td>
<td>29.3</td>
<td>44.3</td>
</tr>
<tr>
<td>1-2 x week</td>
<td>51</td>
<td>36.4</td>
<td>80.7</td>
</tr>
<tr>
<td>3+ x week</td>
<td>27</td>
<td>19.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount drunk on typical drinking occasion</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>7</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>.1-3 beers</td>
<td>18</td>
<td>12.9</td>
<td>17.9</td>
</tr>
<tr>
<td>3-4 beers</td>
<td>25</td>
<td>17.9</td>
<td>35.8</td>
</tr>
<tr>
<td>5 or 6 beers</td>
<td>57</td>
<td>40.7</td>
<td>76.6</td>
</tr>
<tr>
<td>more than 6 beers</td>
<td>33</td>
<td>23.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Frequency of Intoxication</td>
<td>Frequency</td>
<td>Percent</td>
<td>Cumulative Percent</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>never</td>
<td>21</td>
<td>15.0</td>
<td>15.0</td>
</tr>
<tr>
<td>1-3 x 2 month</td>
<td>41</td>
<td>29.3</td>
<td>44.3</td>
</tr>
<tr>
<td>4-5 x 2 month</td>
<td>26</td>
<td>18.6</td>
<td>62.9</td>
</tr>
<tr>
<td>6-10 x 2 month</td>
<td>24</td>
<td>17.1</td>
<td>80.0</td>
</tr>
<tr>
<td>11-15 x 2 month</td>
<td>17</td>
<td>12.1</td>
<td>92.1</td>
</tr>
<tr>
<td>16-20 x 2 month</td>
<td>8</td>
<td>5.7</td>
<td>97.8</td>
</tr>
<tr>
<td>more than 20 x 2 month</td>
<td>3</td>
<td>2.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Sexual Victimization History

Slightly more than half the participants (N=77, 55%) reported that their worst sexual assault experience consisted of unwanted sexual intercourse perpetrated by pressure. Thirty-three women, or 23.6%, reported that their worse sexual assault experience consisted of unwanted sexual intercourse in which the perpetrator took advantage of the fact they were drunk and unable to resist. Twenty women, or 14.3%, reported that their worst experience was unwanted intercourse perpetrated by force. Nine women, or 6.4%, reported that their worst experience was intercourse perpetrated after they had been drugged, and one woman, 0.7%, reported that her worst experience was intercourse perpetrated by the use of authority.

More women also reported having been sexually victimized through pressure than any other method. Ninety-five women, or 67.9%, had experienced unwanted sexual intercourse through pressure one or more times. Sixty-three women, or 45%, had experienced unwanted intercourse while drunk. Twenty-one women, or 15%, had experienced unwanted intercourse through force. Fifteen women, or 10.7%, had been drugged into unwanted intercourse, only three women, or 2.1%, had experienced unwanted intercourse through the use of authority. Table 7 gives details of the number of unwanted sexual experiences reported by participants.

Nearly all of the participants, 131 women (93.6%) had been victimized by a sole perpetrator. Three women (2.1%) were victimized by a pair of perpetrators, and six women (4.3%) were victimized by three or more perpetrators. A slight majority of participants, 72 women or 51.4%, were victimized by someone they described as a
Table 7
Victimization History of Participants in the Study

<table>
<thead>
<tr>
<th>Number of Times</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gave in to sex play due to pressure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>39</td>
<td>27.9</td>
<td>27.9</td>
</tr>
<tr>
<td>1</td>
<td>34</td>
<td>24.3</td>
<td>52.2</td>
</tr>
<tr>
<td>2</td>
<td>26</td>
<td>18.6</td>
<td>70.8</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>5.0</td>
<td>75.8</td>
</tr>
<tr>
<td>4 or more</td>
<td>34</td>
<td>24.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Gave in to sex play due to authority</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>134</td>
<td>95.7</td>
<td>95.7</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
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<td>97.1</td>
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<tr>
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<td>1.4</td>
<td>98.5</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>98.5</td>
</tr>
<tr>
<td>4 or more</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 7 Continued

<table>
<thead>
<tr>
<th>Number of Times</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gave in to sex play due to force</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>112</td>
<td>80.0</td>
<td>80.0</td>
</tr>
<tr>
<td>1</td>
<td>22</td>
<td>15.7</td>
<td>95.7</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1.4</td>
<td>97.1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>.7</td>
<td>97.9</td>
</tr>
<tr>
<td>4 or more</td>
<td>3</td>
<td>2.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Perpetrator attempted intercourse by use of force</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>111</td>
<td>79.3</td>
<td>79.3</td>
</tr>
<tr>
<td>1</td>
<td>21</td>
<td>15.0</td>
<td>94.3</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>3.6</td>
<td>97.9</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>.7</td>
<td>98.6</td>
</tr>
<tr>
<td>4 or more</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>
### Table 7 Continued

<table>
<thead>
<tr>
<th>Number of times</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perpetrator attempted intercourse by use of drugs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>118</td>
<td>84.3</td>
<td>84.3</td>
</tr>
<tr>
<td>1</td>
<td>19</td>
<td>13.6</td>
<td>97.9</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.7</td>
<td>98.6</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perpetrator attempted intercourse when victim was too drunk to resist</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>77</td>
<td>55.0</td>
<td>55.0</td>
</tr>
<tr>
<td>1</td>
<td>42</td>
<td>30.0</td>
<td>85.0</td>
</tr>
<tr>
<td>2</td>
<td>13</td>
<td>9.3</td>
<td>94.3</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>2.9</td>
<td>97.1</td>
</tr>
<tr>
<td>4 or more</td>
<td>4</td>
<td>2.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Number of times</td>
<td>Frequency</td>
<td>Percent</td>
<td>Cumulative Percent</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Perpetrator used pressure to effect unwanted sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>45</td>
<td>32.1</td>
<td>32.1</td>
</tr>
<tr>
<td>1</td>
<td>54</td>
<td>38.6</td>
<td>70.7</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>13.6</td>
<td>84.3</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>2.1</td>
<td>86.4</td>
</tr>
<tr>
<td>4 or more</td>
<td>19</td>
<td>13.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Perpetrator used authority to effect unwanted sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>137</td>
<td>97.9</td>
<td>97.9</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1.4</td>
<td>99.3</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Perpetrator used drugs to effect unwanted sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>125</td>
<td>89.3</td>
<td>89.3</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>7.9</td>
<td>97.1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.7</td>
<td>97.9</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>.7</td>
<td>98.6</td>
</tr>
<tr>
<td>4 or more</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 7 Continued

<table>
<thead>
<tr>
<th>Number of times</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perpetrator used force to effect unwanted sexual intercourse</td>
<td>0</td>
<td>119</td>
<td>85.0</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>16</td>
<td>11.4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>.7</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>.7</td>
</tr>
<tr>
<td></td>
<td>4 or more</td>
<td>3</td>
<td>2.1</td>
</tr>
</tbody>
</table>
romantic acquaintance. Twenty-two women, or 15.7%, were victimized by a casual or first date. Thirty-eight women, or 27.1%, were victimized by an acquaintance, and eight women, or 5.7%, were victimized by strangers. More than half the participants, 76 women (54.6%), had been victimized within the year prior to their screening for the study. Sixty-one women, or 43.6%, were victimized between one and five years prior to their screening, and two women (1.4%) were victimized more than five years prior to their screening. Table 8 presents details regarding perpetrators and recency of assault.

Revictimization

Slightly more than one-third of the participants – 52 women, or 37.1% – reported some kind of sexual revictimization at Time Two. Of those 52 women, 39 women, or 27.9% of the participants, experienced reported revictimization that consisted of unwanted sexual intercourse. Twenty-three women, or 16.4% of the total, reported that their worst revictimization experience consisted of unwanted sexual intercourse perpetrated by pressure. Eight women, or 5.2%, reported their worst experience as unwanted intercourse in which the perpetrator gave the woman a drug, and six women, or 4.3%, reported that their worst experience was unwanted sexual intercourse when they were too drunk to resist. Only two women (1.4%) reported being raped by force, which they also described as their worst revictimization experience. Table 9 gives details of the number of revictimization experiences reported by the participants.
Table 8

*Perpetrators and Recency of Assault*

<table>
<thead>
<tr>
<th>Number of perpetrators</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>131</td>
<td>93.6</td>
<td>93.6</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>2.1</td>
<td>95.7</td>
</tr>
<tr>
<td>3+</td>
<td>6</td>
<td>4.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship of perpetrators to victim</th>
</tr>
</thead>
<tbody>
<tr>
<td>stranger</td>
</tr>
<tr>
<td>acquaintance</td>
</tr>
<tr>
<td>casual/first date</td>
</tr>
<tr>
<td>romantic</td>
</tr>
</tbody>
</table>
### Table 8 Continued

<table>
<thead>
<tr>
<th>Number of victimization experiences</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>76</td>
<td>54.3</td>
<td>54.3</td>
</tr>
<tr>
<td>2</td>
<td>34</td>
<td>24.3</td>
<td>78.6</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>6.4</td>
<td>85.0</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>3.6</td>
<td>88.6</td>
</tr>
<tr>
<td>5+</td>
<td>16</td>
<td>11.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most recent victimization</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 3 months</td>
<td>20</td>
<td>14.3</td>
<td>14.3</td>
</tr>
<tr>
<td>3-6 months</td>
<td>28</td>
<td>20.0</td>
<td>34.3</td>
</tr>
<tr>
<td>6-12 months</td>
<td>28</td>
<td>20.0</td>
<td>54.3</td>
</tr>
<tr>
<td>1-2 years</td>
<td>34</td>
<td>24.3</td>
<td>78.6</td>
</tr>
<tr>
<td>3-5 years</td>
<td>27</td>
<td>19.3</td>
<td>97.9</td>
</tr>
<tr>
<td>more than 5 years</td>
<td>3</td>
<td>2.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 9

*Revictimization Experiences of Participants in the Study*

<table>
<thead>
<tr>
<th>Number of times</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gave in to sex play due to pressure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>105</td>
<td>75.0</td>
<td>75.0</td>
</tr>
<tr>
<td>1</td>
<td>22</td>
<td>15.7</td>
<td>90.7</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>5.7</td>
<td>96.4</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1.4</td>
<td>97.9</td>
</tr>
<tr>
<td>4 or more</td>
<td>3</td>
<td>2.1</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gave in to sex play due to authority</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>138</td>
<td>98.6</td>
<td>98.6</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>.7</td>
<td>99.3</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.7</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gave in to sex play due to force</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>138</td>
<td>98.6</td>
<td>98.6</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Number of times</td>
<td>Frequency</td>
<td>Percent</td>
<td>Cumulative Percent</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Perpetrator attempted intercourse by use of force</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>138</td>
<td>98.6</td>
<td>98.6</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Perpetrator attempted intercourse by use of drugs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>135</td>
<td>96.4</td>
<td>96.4</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>2.1</td>
<td>98.6</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Perpetrator attempted intercourse when victim was too drunk to resist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>124</td>
<td>88.6</td>
<td>88.6</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>7.9</td>
<td>96.4</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>2.9</td>
<td>99.3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>99.3</td>
</tr>
<tr>
<td>4 or more</td>
<td>1</td>
<td>.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Number of times</td>
<td>Frequency</td>
<td>Percent</td>
<td>Cumulative Percent</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perpetrator used pressure to effect unwanted sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>114</td>
<td>81.4</td>
<td>81.4</td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>12.9</td>
<td>94.3</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>2.9</td>
<td>97.1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1.4</td>
<td>98.6</td>
</tr>
<tr>
<td>4 or more</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Perpetrator used authority to effect unwanted sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>139</td>
<td>99.3</td>
<td>99.3</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Perpetrator used drugs to effect unwanted sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>132</td>
<td>94.3</td>
<td>94.3</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>4.3</td>
<td>98.6</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.7</td>
<td>99.3</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>99.3</td>
</tr>
<tr>
<td>4 or more</td>
<td>1</td>
<td>.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 9 Continued

<table>
<thead>
<tr>
<th>Number of times</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perpetrator used force to effect unwanted sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>138</td>
<td>98.6</td>
<td>98.6</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Of the 52 women who reported any sexual revictimization at Time Two, 50 women (96.2%) were victimized by a single perpetrator, one woman (1.9%) was victimized by two perpetrators, and one woman (1.9%) was victimized by three perpetrators. Twenty-two women (42.3%) described the perpetrator as a romantic acquaintance, 19 women (36.5%) described him as an acquaintance, nine women (17.3%) described the perpetrator as a casual or first date, and two women (3.8%) described him as a stranger.

Thirty-one women, or 59.6%, reported only one revictimization experience during the follow-up period. Seven women, or 13.5%, reported two revictimization experiences. Three women, or 5.8%, reported three revictimization experiences, and the same number reported four revictimization experiences. Eight women, or 15.4%, reported five or more sexual revictimization experiences during the follow-up period. Forty women, or 76.9%, reported that the revictimization experience occurred less than three months prior to Time Two, while 12 women (23.1%) reported that it occurred between three and six months prior to Time Two. Table 10 gives details of the women’s revictimization experiences.

Questionnaire Measures

Table 11 gives descriptive statistics for Time One questionnaires. Many of these measures were significantly intercorrelated (see Table 12). Most of these correlations were positive. The exceptions, which were unexpected, were negative correlations between the Traumatic Events Questionnaire, which measures the number of different types of traumatic events a subject had experienced, and the Impact of Events Scale-Revised, Posttraumatic Cognitions Inventory, and Dissociative Experiences Scale Revised – Version II, each of which measures negative consequences of trauma. That is,
Table 10

*Perpetrators and Recency of Revictimization*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of perpetrators</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>50</td>
<td>96.2</td>
<td>96.2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1.9</td>
<td>98.1</td>
</tr>
<tr>
<td>3+</td>
<td>1</td>
<td>1.9</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Relationship of perpetrators to victim</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stranger</td>
<td>2</td>
<td>3.8</td>
<td>3.8</td>
</tr>
<tr>
<td>acquaintance</td>
<td>19</td>
<td>36.5</td>
<td>40.4</td>
</tr>
<tr>
<td>casual/first date</td>
<td>9</td>
<td>17.3</td>
<td>57.7</td>
</tr>
<tr>
<td>romantic acquaintance</td>
<td>22</td>
<td>42.3</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Number of revictimization experiences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>31</td>
<td>59.6</td>
<td>59.6</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>13.5</td>
<td>73.1</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>5.8</td>
<td>78.8</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>5.8</td>
<td>84.6</td>
</tr>
<tr>
<td>5+</td>
<td>8</td>
<td>15.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 10 Continued

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most recent revictimization experience</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>less than 3 months</td>
<td>40</td>
<td>76.9</td>
<td>76.9</td>
</tr>
<tr>
<td>3-6 months</td>
<td>12</td>
<td>23.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 11

**Descriptive Statistics of Questionnaire Measures**

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDEQ(^a)</td>
<td>10.00</td>
<td>44.00</td>
<td>18.9065</td>
<td>7.6731</td>
</tr>
<tr>
<td>IES-R(^b)</td>
<td>22.00</td>
<td>93.00</td>
<td>41.4500</td>
<td>14.3549</td>
</tr>
<tr>
<td>PCI(^c)</td>
<td>36.00</td>
<td>194.00</td>
<td>94.3571</td>
<td>32.4880</td>
</tr>
<tr>
<td>TGI(^d)</td>
<td>21.00</td>
<td>119.00</td>
<td>51.7286</td>
<td>22.3510</td>
</tr>
<tr>
<td>TES(^e)</td>
<td>13.00</td>
<td>27.00</td>
<td>21.8000</td>
<td>2.1665</td>
</tr>
<tr>
<td>DESR-2(^f)</td>
<td>49.00</td>
<td>172.00</td>
<td>101.2500</td>
<td>29.3706</td>
</tr>
</tbody>
</table>

**Note:** N = 140 for all measures.

\(^a\)Peritraumatic Dissociative Experiences Questionnaire – Self-Rater Version

\(^b\)Impact of Events Scale – Revised

\(^c\)Posttraumatic Cognitions Inventory

\(^d\)Traumatic Growth Inventory

\(^e\)Traumatic Events Questionnaire

\(^f\)Dissociative Experiences Scale Revised – Version 2
### Table 12

**Intercorrelations Between Questionnaire Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>PDEQ&lt;sup&gt;a&lt;/sup&gt;</th>
<th>IES-R&lt;sup&gt;b&lt;/sup&gt;</th>
<th>PTI&lt;sup&gt;c&lt;/sup&gt;</th>
<th>TGI&lt;sup&gt;d&lt;/sup&gt;</th>
<th>TES&lt;sup&gt;e&lt;/sup&gt;</th>
<th>DESR-2&lt;sup&gt;f&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N = 140)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDEQT1</td>
<td>1.000</td>
<td>.520**</td>
<td>.328**</td>
<td>.194*</td>
<td>-.147</td>
<td>.349**</td>
</tr>
<tr>
<td>PTSDT1</td>
<td></td>
<td>1.000</td>
<td>.566**</td>
<td>.315**</td>
<td>-.201*</td>
<td>.390**</td>
</tr>
<tr>
<td>PCIT1</td>
<td></td>
<td></td>
<td>.043</td>
<td>-.202*</td>
<td>.414**</td>
<td></td>
</tr>
<tr>
<td>TGIT1</td>
<td></td>
<td></td>
<td></td>
<td>-.074</td>
<td>.334**</td>
<td></td>
</tr>
<tr>
<td>TSIT1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
<td>-.157</td>
</tr>
<tr>
<td>DEST1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
</tbody>
</table>

<sup>a</sup>Peritraumatic Dissociative Experiences Questionnaire – Self-Rater Version  
<sup>b</sup>Impact of Events Scale – Revised  
<sup>c</sup>Posttraumatic Cognitions Inventory  
<sup>d</sup>Traumatic Growth Inventory  
<sup>e</sup>Traumatic Events Questionnaire  
<sup>f</sup>Dissociative Experiences Scale Revised – Version 2  

*Results are significant at $p < .05$.  
**Results are significant at $p < .01$.  

*Results are significant at $p < .05$.  
**Results are significant at $p < .01$.  

*Results are significant at $p < .05$.  
**Results are significant at $p < .01$.
women who had experienced fewer different types of trauma scored higher on all three measures compared to women who had experienced more different types of trauma.

Despite the significant intercorrelations, no measures were collinear to a degree that would necessitate eliminating or combining variables, in that no Condition Indices were greater than 30 and no condition accounted for .90 or more of the variance for two or more coefficients (Hair et al., 1995).

Table 13 gives descriptive statistics for all narrative measures. As with the questionnaire measures, many of the narrative measures were significantly intercorrelated (Table 14). As was the case with the questionnaire variables, in many cases the correlations were in the expected direction. For example, Organized Thoughts was significantly negatively correlated with Disorganized Thoughts \( (r = -.19, p < .05) \), and the combined category of Thoughts and Feelings was significantly negatively correlated with the combined category of Action and Dialog \( (r = -.38, p < .01) \), suggesting that these categories were in fact measuring opposite or different constructs. In other cases, however, the correlations were in unexpected directions. For example, Total Life Story Coherence was significantly negatively correlated with Thoughts \( (r = -.31, p < .01) \). As with the questionnaire variables, none of the narrative measures were collinear to a degree that would necessitate eliminating variables prior to conducting the regression analysis.
Table 13

*Descriptive Statistics of Narrative Variables*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.00</td>
<td>45.16</td>
<td>17.25</td>
<td>9.76</td>
</tr>
<tr>
<td>DT&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.00</td>
<td>33.33</td>
<td>4.92</td>
<td>5.78</td>
</tr>
<tr>
<td>Fragmentation</td>
<td>.00</td>
<td>48.00</td>
<td>21.98</td>
<td>9.86</td>
</tr>
<tr>
<td>Orientation</td>
<td>1.00</td>
<td>6.67</td>
<td>3.66</td>
<td>1.19</td>
</tr>
<tr>
<td>Structure</td>
<td>1.00</td>
<td>7.00</td>
<td>3.81</td>
<td>1.20</td>
</tr>
<tr>
<td>Evaluation</td>
<td>1.00</td>
<td>7.00</td>
<td>3.51</td>
<td>1.72</td>
</tr>
<tr>
<td>Integration</td>
<td>1.00</td>
<td>7.00</td>
<td>4.00</td>
<td>1.73</td>
</tr>
<tr>
<td>Total LSC&lt;sup&gt;c&lt;/sup&gt;</td>
<td>17.00</td>
<td>63.00</td>
<td>37.45</td>
<td>10.37</td>
</tr>
<tr>
<td>Causal</td>
<td>.00</td>
<td>22</td>
<td>3.29</td>
<td>3.19</td>
</tr>
<tr>
<td>Conditional</td>
<td>.00</td>
<td>16</td>
<td>2.96</td>
<td>2.35</td>
</tr>
<tr>
<td>Causal/Conditional</td>
<td>.00</td>
<td>22</td>
<td>6.24</td>
<td>4.88</td>
</tr>
</tbody>
</table>

*Note:* All numbers are percentages of total utterances.

<sup>a</sup>Organized Thoughts  
<sup>b</sup>Disorganized/Confused Thoughts  
<sup>c</sup>Total Life Story Coherence
### Table 14

**Intercorrelations Between Narrative Variables**

<table>
<thead>
<tr>
<th>Measure</th>
<th>OT&lt;sup&gt;a&lt;/sup&gt;</th>
<th>DT&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Fragment&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Orient&lt;sup&gt;d&lt;/sup&gt;</th>
<th>Structure</th>
<th>Evaluate&lt;sup&gt;e&lt;/sup&gt;</th>
<th>Integrate&lt;sup&gt;f&lt;/sup&gt;</th>
<th>LSC&lt;sup&gt;g&lt;/sup&gt;</th>
<th>Causal</th>
<th>Condition&lt;sup&gt;h&lt;/sup&gt;</th>
<th>Ca/Co&lt;sup&gt;i&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.000</td>
<td>-.185*</td>
<td>.016</td>
<td>-.234**</td>
<td>-.148</td>
<td>-.271**</td>
<td>-.094</td>
<td>-.225**</td>
<td>.190</td>
<td>.109</td>
<td>.203*</td>
</tr>
<tr>
<td>DT&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.000</td>
<td>-.062</td>
<td>-.097</td>
<td>-.230**</td>
<td>.013</td>
<td>-.197*</td>
<td>-.194*</td>
<td>-.061</td>
<td>.137</td>
<td>.060</td>
<td></td>
</tr>
<tr>
<td>Fragment&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1.000</td>
<td>-.113</td>
<td>-.048</td>
<td>-.015</td>
<td>.137</td>
<td>-.049</td>
<td>-.083</td>
<td>-.051</td>
<td>-.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orient&lt;sup&gt;d&lt;/sup&gt;</td>
<td>1.000</td>
<td>.552**</td>
<td>.372**</td>
<td>.418**</td>
<td>.788**</td>
<td>-.146</td>
<td>-.334**</td>
<td>-.338**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>1.000</td>
<td>.493**</td>
<td>.416**</td>
<td>.913**</td>
<td>-.043</td>
<td>-.195*</td>
<td>-.170*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluate&lt;sup&gt;e&lt;/sup&gt;</td>
<td>1.000</td>
<td>.497**</td>
<td>.653**</td>
<td>-.039</td>
<td>-.226**</td>
<td>-.190*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrate&lt;sup&gt;f&lt;/sup&gt;</td>
<td>1.000</td>
<td>.615**</td>
<td>-.001</td>
<td>-.119</td>
<td>-.086</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSC&lt;sup&gt;g&lt;/sup&gt;</td>
<td>1.000</td>
<td>-.082</td>
<td>-.283**</td>
<td>-.259**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Causal</td>
<td>1.000</td>
<td>.048</td>
<td>.689**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conditional</td>
<td>1.000</td>
<td>.757**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ca/Co&lt;sup&gt;i&lt;/sup&gt;</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 14 Continued

*aOrganized Thoughts  
*bDisorganized/Confused Thoughts  
*cFragmentation  
*dOrientation  
*eEvaluation  
*fIntegration  
*gTotal Life Story Coherence  
*hConditional  
*iTotal Causal/Conditional  

*Results are significant at \( p < .05 \)

**Results are significant at \( p < .01 \)
**Univariate Logistic Regressions**

To maintain ease of interpretation in respect to the final logistic regression analysis, all univariate tests were conducted as logistic regressions with binary variables (revictimization/no revictimization and intercourse revictimization/no intercourse revictimization) and single independent variables. All univariate logistic regressions were conducted with a cutoff point for classification was set at .5, meaning that cases in which the probability of belonging to the revictimized group, based on the model, was greater than .5 would be classified as revictimized, and cases in which the probability of belonging to the revictimized group, based on the model, was .5 or less would be classified as not revictimized.

**Demographic variables.**

During the initial screening session, information was collected on several demographic variables. In examining the frequencies of the different categories of these variables, numerous categories had fewer than five participants. For example, in the category Age, only one participant was 21, three were 22, and two were 23. In the category Ethnicity, three participants were African-American, one was Asian-Pacific, two were Hispanic, and the rest were Caucasian. Because the assumptions of Chi-square analysis on which logistic regression is based are that no cells will have zero members and no more than 20% of the cells will have fewer than five members, where possible and appropriate, categories were combined so that the number of participants in each category would be more equal and more likely to meet the assumptions of Chi-square testing. For example, in the variable Age, ages 20 through Over 22 were combined. In the
variable Year in School, all classes other than freshman were combined. In the variable Religion, Jewish was combined with Other, and in the variable Dating Status, all categories other than “date casually” were combined (long-term relationship, engaged, married, not dating). Such combining was not possible for the variables Ethnicity, Sexual Orientation, and Marital Status, since for those variables, even if all categories other than the largest had been combined, there would still have been too few participants in the combined category to meet the assumptions of Chi-square testing. Therefore, those three variables were omitted from the testing. None of the other demographic variables (age, year in school, religion, or dating status) were significantly different between those women who were revictimized and those who were not, or between those women who experienced revictimization in the form of unwanted sexual intercourse and those who did not.

_Situational variables._

Five situational variables that have previously been shown to be associated with sexual victimization (Gidycz et al., 2001; Greene & Navarro, 1998; Koss & Dinero, 1989; Merrill, 1999; Muehlenhard & Linton, 1987; Reig, 1999; Sandberg, 1996) were tested: age of first consensual sexual experience, number of consensual sexual partners, frequency of alcohol use, amount of alcohol drunk on a typical drinking occasion, and frequency of intoxication. As was the case with the demographic variables, these situational variables all had categories with few or no participants. Again, where appropriate and possible, categories were combined to attempt to ensure adequate sampling adequacy for each cell in the Chi-square analysis. No significant results were
found in testing any of the situational independent variables in regard to either any revictimization or revictimization involving unwanted sexual intercourse.

**Questionnaire-based variables.**

Six variables derived from answers to questionnaires were tested as continuous variables: the Peritraumatic Dissociative Experiences Questionnaire, the Impact of Events Scale-Revised, the Posttraumatic Cognitions Inventory, the Traumatic Growth Inventory, the Traumatic Events Questionnaire, and the Dissociative Experiences Scale Revised-Version II. None of the questionnaire variables was significantly different between those women who were revictimized and those who were not. However, two of the questionnaire variables – the Posttraumatic Cognitions Inventory and the Traumatic Events Questionnaire – were significantly different between those women who experienced revictimization in the form of unwanted sexual intercourse and those who did not, $\chi^2 (1, N = 140) = 5.92, p < .01$ and $\chi^2 (1, N = 140) = 4.28, p < .05$, respectively. However, Hosmer and Lemeshow’s Goodness of Fitness Test for the model incorporating the Posttraumatic Cognitions Inventory was also significant, $\chi^2 (8, N = 140) = 16.09, p < .05$, indicating that there was a significant difference between the data predicted by the model and the observed data, and this model did perform more poorly at identifying revictimized and nonrevictimized women than the constant alone. This model misclassified as revictimized with sexual intercourse two of the 101 women who were not so revictimized, and only identified one of the 39 women who were so revictimized, for accuracy rates of 98.0% and 2.6 respectively and an overall accuracy rate of 71.4%, compared to accuracy rates of 100%, 0%, and 72.1% for the constant alone.
Hosmer and Lemeshow’s Goodness of Fitness Test for the model incorporating the Traumatic Events Questionnaire was nonsignificant, indicating that the data predicted by the model did significantly match the observed data. However, a test of association showed that the model accounted for less than .05% of the variability in the dependent variable (Nagerkelke’s $R^2 = .04$), and when used to classify participants into revictimized and nonrevictimized, this model too performed worse than chance, misclassifying as revictimized with sexual intercourse three of the 101 women who were not so revictimized, and not identifying any of the 39 women who were so revictimized, for accuracy rates of 97.0% and 0% respectively and an overall accuracy rate of 70.0%.

Narrative variables.

Nine narrative variables were tested: the Organized Thoughts, Disorganized/Confused Thoughts, and Fragmentation scales derived from the Content Analysis Manual, the Orientation, Structure, Evaluation, Integration, and Total scores derived from the Life Story Coherence scale, and the total score derived from the Causal/Conditional Coding scale (Appendix I). All measures were continuous.

One narrative variable, Causal/Conditional Coding, was significant in regard to revictimization in general, $\chi^2 (5, N = 140) = 3.96, p < .05$. None of the narrative variables were significant in regard to revictimization that involved unwanted sexual intercourse, although two variables showed a trend toward significance. The Structure score of the Life Story Coherence scale was marginally significant at the $p < .1, \chi^2 (1, N = 140) = 2.83, p = .09$. The total Life Story Coherence score was marginally significant at the $p <
.5 level, $\chi^2 (1, N = 140) = 2.49, p = .12$. In each instance, higher scores were associated with increased risk of revictimization.

**Multivariate Logistic Regression**

A series of multivariate logistic regressions were then conducted to examine which of the independent variables contributed to the prediction of revictimization in the presence of the other variables. Several sets of regressions were conducted for each of the two dependent variables, any revictimization and revictimization that involved unwanted sexual intercourse.

*Logistic regression with significant variables.*

The first set consisted of simultaneously entering only those variables that had been shown to be significant or nearly significant in univariate testing. These consisted of the Posttraumatic Cognitions Inventory and the Traumatic Events Questionnaire, the Structure and Total scores of the Life Story Coherence scale, and total Causal/Conditional coding.

In regard to revictimization in general, this model was not significant. In regard to revictimization with unwanted sexual intercourse, this model was significant $\chi^2 (5, N = 140) = 12.23, p < .05$. A test of the strength of the association showed that this model explained slightly more than 10 percent of the variance in the dependent variable (Nagelkerke’s $R^2 = .12$). Hosmer and Lemeshow’s Goodness of Fit Test was nonsignificant, indicating that this model significantly fit the observed data. This model accurately predicted 95.0% of women who were not revictimized and 17.9% of women who were revictimized, for a total accuracy rate of 73.6%, compared to rates of 100%,
0%, and 72.1% respectively for the constant alone. This model correctly identified seven of the 39 women who were revictimized with unwanted sexual assault, but misidentified as revictimized five of the 101 women who were not revictimized in such a manner.

While this model as a whole reached significance, only one of the variables was individually significant. The Posttraumatic Cognitions Inventory was significant at the .05 level (Wald = 4.27, $p < .05$). The odds ratio for this variable was 1.013 (.95 C.I. = 1.001 to 1.025). No other individual variables were even marginally significant in this model.

*Logistic regression with all variables.*

To examine whether any of the other independent variables initially named in the design of this study would increase the predictive accuracy of this model, logistic regressions were again conducted for both revictimization in general and revictimization involving unwanted sexual intercourse in which all initially identified independent variables were entered and then tested using the Backwards Likelihood Ratio procedure in SPSS. The Peritraumatic Dissociative Experiences Questionnaire, Impact of Events Scale-Revised, Posttraumatic Cognitions Inventory, Traumatic Growth Inventory, Traumatic Events Questionnaire, Dissociative Experiences Scale Revised-Version II, Sexual Experiences Survey, the Organized Thoughts scale, Disorganized/Confused Thoughts scale, and Fragmentation scales of the Content Analysis Manual, all four subscales of the Life Story Coherence scale and the total Life Story Coherence score, and the total Causal/Conditional scores were entered as continuous variables. Age of first consensual experience, number of consensual sex partners, frequency of alcohol use,
amount of alcohol drunk in a typical drinking occasion, and frequency of intoxication were entered as categorical variables. Because of the large number of variables, probability for stepwise entry was set at a conservative .05, while probability for stepwise removal was set at an equally conservative .01. The cutoff point for classification remained set at .5.

In regard to revictimization in general, after 22 iterations, this saturated model retained only the constant. On the 21st step, the model included both the constant and the Causal/Conditional Coding, which was significant at the .05 level; however, the Causal/Conditional Coding was removed from the model in the next and final step due to the very conservative criterion of .01 that had been established for removal of variables.

In regard to revictimization involving unwanted sexual intercourse, after 23 iterations, the final backward likelihood ratio model also retained only the constant. On the 22nd step, the model included both the constant and the Posttraumatic Cognitions Inventory, which was significant at the .05 level, but which was nevertheless removed from the model on the next and final step due to the very conservative criterion of .01 that had been established for removal of variables. Tables 15 and 16 provide the results of logistic regression testing.
### Table 15

**Summary of Univariate Logistic Regression Analyses**

Variables Predicting Any Revictimization (N = 140)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Questionnaire Measures</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Peritraumatic Dissociative</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Peritraumatic Dissociative Experiences Questionnaire</td>
<td>-.014</td>
<td>.023</td>
<td>.986</td>
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<tr>
<td>Impact of Events Scale – Revised</td>
<td>-.008</td>
<td>.013</td>
<td>.992</td>
</tr>
<tr>
<td>Posttraumatic Cognitions Inventory</td>
<td>.008</td>
<td>.005</td>
<td>1.008</td>
</tr>
<tr>
<td>Traumatic Growth Inventory</td>
<td>-.012</td>
<td>.008</td>
<td>.988</td>
</tr>
<tr>
<td>Traumatic Events Questionnaire</td>
<td>-.075</td>
<td>.080</td>
<td>.928</td>
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<tr>
<td>Dissociative Experiences Scale</td>
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<tr>
<td>Dissociative Experiences Scale – Version 2</td>
<td>.003</td>
<td>.006</td>
<td>1.003</td>
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<tr>
<td><strong>Narrative Measures</strong></td>
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</tr>
<tr>
<td>Organized Thoughts</td>
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<td>.018</td>
<td>.999</td>
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<tr>
<td>Disorganized/Confused Thoughts</td>
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<td>.032</td>
<td>.977</td>
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<tr>
<td>Fragmentation</td>
<td>.023</td>
<td>.018</td>
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<td>Orientation</td>
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<td>.148</td>
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<tr>
<td>Structure</td>
<td>.162</td>
<td>.147</td>
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<td>Evaluation</td>
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<tr>
<td>Integration</td>
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<td>1.068</td>
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</table>
Table 15 Continued

<p>| | | | |</p>
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<th></th>
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<tbody>
<tr>
<td>Total Life Story Coherence</td>
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<tr>
<td>Total Causal/Conditional Coding</td>
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<td>.060</td>
<td>1.125*</td>
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</table>

*p < .05.
Table 15 Continued

Variables Predicting Revictimization with Unwanted Sexual Intercourse (N = 140)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Exp(B)</th>
</tr>
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<tr>
<td><strong>Questionnaire Measures</strong></td>
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<td>Peritraumatic Dissociative</td>
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<tr>
<td>Experiences Questionnaire</td>
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<td>.024</td>
<td>1.015</td>
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<tr>
<td>Impact of Events Scale – Revised</td>
<td>.002</td>
<td>.013</td>
<td>1.002</td>
</tr>
<tr>
<td>Posttraumatic Cognitions Inventory</td>
<td>.014</td>
<td>.006</td>
<td>1.014*</td>
</tr>
<tr>
<td>Traumatic Growth Inventory</td>
<td>-.005</td>
<td>.009</td>
<td>.995</td>
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<td>Traumatic Events Questionnaire</td>
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<td>.838*</td>
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<tr>
<td><strong>Dissociative Experiences Scale</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Revised – Version 2</td>
<td>.009</td>
<td>.006</td>
<td>1.009</td>
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<tr>
<td><strong>Narrative Measures</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Organized Thoughts</td>
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<td>.019</td>
<td>1.021</td>
</tr>
<tr>
<td>Disorganized/Confused Thoughts</td>
<td>-.024</td>
<td>.035</td>
<td>.977</td>
</tr>
<tr>
<td>Fragmentation</td>
<td>.006</td>
<td>.019</td>
<td>1.006</td>
</tr>
<tr>
<td>Orientation</td>
<td>.184</td>
<td>.161</td>
<td>1.202</td>
</tr>
<tr>
<td>Structure</td>
<td>.265</td>
<td>.159</td>
<td>1.303</td>
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<tr>
<td>Evaluation</td>
<td>.113</td>
<td>.111</td>
<td>1.119</td>
</tr>
<tr>
<td>Integration</td>
<td>.031</td>
<td>.124</td>
<td>1.031</td>
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<tr>
<td>Total Life Story Coherence</td>
<td>.029</td>
<td>.018</td>
<td>1.029</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>--------------------------------</td>
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<td>-----</td>
</tr>
<tr>
<td>Total Causal/Conditional Coding</td>
<td>-1.309</td>
<td>.394</td>
<td>.270</td>
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</table>

*p < .05
Table 16

Summary of Multivariate Logistic Regression Analyses

<table>
<thead>
<tr>
<th>Variables</th>
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<th>SE B</th>
<th>Exp(B)</th>
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<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Constant (Step 22)</td>
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<td>.175</td>
<td>.591**</td>
</tr>
<tr>
<td>Significant or Marginally Significant</td>
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</tr>
<tr>
<td>Variables Only&lt;sup&gt;c&lt;/sup&gt;</td>
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<td></td>
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</tr>
<tr>
<td>Posttraumatic Cognitions Inventory</td>
<td>.007</td>
<td>.006</td>
<td>1.007</td>
</tr>
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<td>Traumatic Experiences Survey</td>
<td>-.037</td>
<td>.084</td>
<td>.964</td>
</tr>
<tr>
<td>Structure</td>
<td>-.025</td>
<td>.366</td>
<td>.975</td>
</tr>
<tr>
<td>Total Life Story Coherence</td>
<td>.028</td>
<td>.044</td>
<td>1.029</td>
</tr>
<tr>
<td>Total Causal/Conditional Coding</td>
<td>.151</td>
<td>.066</td>
<td>1.163*</td>
</tr>
</tbody>
</table>

<sup>a</sup>Variables entered on Step 1: Sexual Experiences Survey, Frequency of Alcohol Use, Amount of Alcohol Drunk on a Typical Drinking Occasion, Frequency of Intoxication, Age of First Consensual Sexual Experience, Number of Consensual Sexual Partners, Peritraumatic Dissociative Experiences Questionnaire, Impact of Events Scale – Revised, Posttraumatic Cognitions Inventory, Traumatic Growth Inventory, Traumatic Events Questionnaire, Dissociative Experiences Scale Revised – Version 2, Organized Thoughts,
Table 16 Continued

Disorganized/Confused Thoughts, Fragmentation, Orientation, Structure, Evaluation, Integration, Total Life Story Coherence, Causal Coding, Conditional Coding, Total Causal/Conditional Coding.

\(^b\)Criterion for entry was set at .05. Criterion for removal was set at .01.

\(^c\)Model is non-significant.

\(*p < .05.\)

\(**p < .005.\)
Table 16 Continued

Variables Predicting Revictimization with Unwanted Sexual Intercourse (N = 140)

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Variables, Backward Likelihood Ratio Procedure</td>
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<tr>
<td>Constant (Step 22)</td>
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<td>.189</td>
<td>.386**</td>
</tr>
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</tr>
<tr>
<td>Variables Only</td>
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<td></td>
<td></td>
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<tr>
<td>Posttraumatic Cognitions Inventory</td>
<td>.013</td>
<td>.006</td>
<td>1.013*</td>
</tr>
<tr>
<td>Traumatic Experiences Survey</td>
<td>-.124</td>
<td>.089</td>
<td>.883</td>
</tr>
<tr>
<td>Structure</td>
<td>.209</td>
<td>.396</td>
<td>1.232</td>
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<tr>
<td>Total Life Story Coherence</td>
<td>.004</td>
<td>.072</td>
<td>1.111</td>
</tr>
<tr>
<td>Total Causal/Conditional Coding</td>
<td>-1.052</td>
<td>2.408</td>
<td>.349</td>
</tr>
</tbody>
</table>

Table 16 Continued

bCriterion for entry was set at .05. Criterion for removal was set at .01.

*p < .05.

**p < .001.
Discussion

Of this study’s two hypotheses, neither was supported. The first hypothesis was that survivors of sexual assault whose narratives of their assault experiences were more fragmented and disorganized would be more likely to experience sexual revictimization during the course of the study than survivors whose narratives were more organized and coherent. In this study, this was not found to be the case.

The second hypothesis was that survivors of sexual assault whose narratives of their assault experiences expressed more meaningfulness would be less likely to experience sexual revictimization during the course of the study than survivors whose narratives expressed more meaningfulness. This hypothesis was not supported in that statements expressing causality and conditionality did predict revictimization in general, but in the opposite direction than that anticipated by the hypothesis. In addition, three other variables intended to measure meaningfulness were not significant in regard to either revictimization in general or revictimization involving sexual intercourse, nor was Causal/Conditional Coding significant in predicting revictimization involving sexual intercourse.

In the context of a multivariate model intended to predict sexual revictimization in general, consisting of the Posttraumatic Cognitions Inventory, the Traumatic Events Questionnaire, the Structure and total scores of the Life Story Coherence scale, and the total Causal/Conditional score, the total Causal/Conditional Coding was still significant, although once again in the opposite direction as expected; however, the model of which it was a part was not significant.
The same multivariate model did, however, significantly predict revictimization that involved unwanted sexual intercourse. This model correctly identified seven of the 39 women who were revictimized, although at a cost of misclassifying five women who were not revictimized. The only variable in this model that was individually significant in the presence of the other variables in the model was the Posttraumatic Cognitions Inventory. When the Posttraumatic Cognitions Inventory was tested in a univariate logistic regression, that univariate model showed greater specificity, misclassifying only three of the 101 women who were not revictimized, but less sensitivity, correctly identifying only one of the 39 women who were revictimized. The overall accuracy of the univariate model was 71.4%, lower than the constant alone, which had an accuracy rate of 72.1%. The overall accuracy of the multivariate model was 73.6%, indicating that the presence of the other variables, including the three narrative variables, did increase the overall predictive ability of the model, despite the variables’ being individually nonsignificant.

The inability of the narrative measures tested in this study to predict sexual revictimization suggests several possibilities in regard to the concept of unresolved trauma and the relationship of narrative to trauma. The construct of unresolved trauma, as noted previously, encompasses numerous models and theories, from the purely psychodynamic concept of a search for mastery (Freud, 1920/1961) or self-punishment by the superego (Waelder, cited in Horowitz, M. J., 1983) to the physiological model of addiction to trauma (van der Kolk, 1989). It may be that the construct of unresolved trauma is simply too broad and undefined at this point in time, and that more specificity
is needed in identifying exactly what the definition of unresolved trauma should be before it can profitably be posited as a key component of revictimization of survivors of trauma.

Describing the relationship between trauma and narrative also depends on the selection of one of several available interpretations of the nature of narrative and its relationship to internal states. Although several studies have found evidence of such a relationship (e.g., Foa, 1997; Foa et al., 1995; Harber & Pennebaker, 1992; Pennebaker, Mayne, & Francis, 1997; Pennebaker & Seagal, 1999; van Minnen, Wessel, Dijkstra, & Roelofs, 2002; Zoellner, Alvarez-Conrad, & Foa, 2002), the history of psychology is replete with cautions that narrative, while sometimes expressing the truth about internal states, may just as well serve to disguise those states or hide them from view (Freud, 1901/1991; Sarbin, 1986). Furthermore, regardless of the degree to which verbal expression may unwittingly reveal unconscious mental processes (Freud, 1901/1991), it is also at least in part a voluntary process. Therefore, the degree to which narrative reveals internal cognitive and affective processes and states is at least in part under the speaker’s control. Narrative may express or reveal those underlying processes and states with much greater accuracy for some persons than for others.

The many variations of methods designed to measure and quantify narrative elements also suggests that there is uncertainty as to what, exactly, is being measured. Narrative is, by its very nature, open-ended, qualitative, and subjective (Sarbin, 1986; White & Epston, 1990). Within the literature on narrative, there is some disagreement as to the appropriateness or even the possibility of using quantitative methods to measure
and describe elements of narrative. Even researchers who use qualitative methods to study narrative have discussed the difficulty of forcing narratives into structured coding schemes and categories, even when those categories are derived from direct investigation of the narratives themselves (Antaki, 1988; Mishler, 1995; Peterson & McCabe, 1986; Riessman, 1993). It may be that attempting to quantify narrative elements is an attempt to quantify the unquantifiable.

The relationships between the narrative measures used in this study and trauma have been supported in other studies (Amir et al., 1998; Barclay, 1996; Baerger and McAdams, 1999; Foa, Molnar, & Cashman, 1995; Pennebaker et al., 1997; Pennebaker & Seagal, 1999; Zoellner, Alvarez-Conrad, & Foa, 2002). Nonetheless, the measures are all relatively recently developed measures that have been used only a few times in contexts that are related to, but decidedly different from, the current study. For example, Foa, Molnar, & Cashman’s (1995) study in which the Content Analysis Manual (Foa, 1995) was used for the first time was a study of change in narrative during a course of prolonged exposure treatment for PTSD. Baerger & McAdams’ (1999) development of the Life Story Cohesion Scale examined correlations between narrative and trauma only as one small part of a larger study focusing on the differences in narratives of high and low points in a person’s lifetime. These measures are still very much in the exploratory stage of their development, and much remains to be learned about their usefulness in contexts other than those in which they were developed.

Several factors directly related to the methodology used to collect and measure the narratives used in this study may have contributed to a lack of positive findings. In
one previous study using Foa’s measures of organization and fragmentation (Foa, Molnar, & Cashman, 1995), subjects were asked to tell the narrative in first person, present tense, as if they were re-experiencing the traumatic event. In this study, narratives were delivered in past tense. It is possible that by using language that expressed or mimicked the re-experiencing of the original event, the previous study led subjects to make deeper connections with unprocessed cognitions and memories relating to the trauma. It may be that the more descriptive style of narrative used in this study simply did not tap into those traumatic cognitions and emotions to the same degree of intensity, and therefore did not reflect any underlying unresolved trauma.

In addition, as noted above, Foa’s previous study (Foa, Molnar, & Cashman, 1995) was conducted in the context of exposure treatment for PTSD. It may be that this treatment, which involved repeated tellings of the same narrative, facilitated access to traumatic cognitions and emotions, whereas the one-time telling of the narratives in this study did not. This would support other studies (Harber & Pennebaker, 1992; Pennebaker, Kiecolt-Glaser, & Glaser, 1988) that have suggested that narratives that are accompanied by emotional arousal are associated with an increase in wellbeing, while those that are not accompanied by affect are not.

Another possible problem related to the issue of the repeated telling of narratives has been raised by the authors of a partial replication of Foa, Molnar, and Cashman’s (1995) study. Van Minnen, Wessel, Dijkstra, and Roelofs (2002) compared narrative changes over the course of treatment for improved and unimproved patients with PTSD. They found no changes in organized thoughts or fragmentation, but did find that
disorganized thoughts decreased significantly more in improved patients ($n = 8$) than in unimproved patients ($n = 12$) ($t = -1.73, p = .05$). However, they also found that disorganized thoughts decreased significantly in all patients, regardless of improvement ($t = 2.36, p < .05$). They suggested that changes in narrative organization may be simple results of telling the same story repeatedly, rather than reflecting an underlying change in cognitive-affective processes. They did note that the small sample size of their study prevented generalization.

It is also possible that despite the generally satisfactory level of reliability attained in coding the narratives used in this study, errors in coding were nonetheless sufficient to prevent any significant results that might exist from being seen. For example, the category Fragmentation consisted of three subscales, Unfinished Thoughts, Speech Fillers, and Repetitions. While all three categories showed fair to excellent interrater reliability, the appropriate codings were not always clearly obvious. In identifying a phrase as a speech filler, for example, the coder is required to determine whether the phrase is actually an indication of a blocked or interrupted train of thought, as the coding manual intends, or whether it is simply a colloquial figure of speech common to the population. In the case of this study, for example, it was sometimes difficult to tell whether a phrase such as “Well, you know” or “He was saying he loved me, and blah blah blah (sic)” represented an interruption in cognitive processing, or was merely commonly used colloquial shorthand that the speaker believed would be understood as transmitting information. To attempt to eliminate this problem, some recent studies by Foa and her colleagues (Amir, Stafford, Freshman, & Foa, 1998; Zoellner, Alvarez-
Conrad, & Foa, 2002) have measured grade level and reading ease of transcribed narratives on the presumption that these measures will reflect underlying cognitive disorganization. Because these measures can be calculated automatically by standard features of Microsoft Word software, it is not necessary to rely on potentially fallible human coders to code the narratives using rules that are sometimes confusing or unclear. However, to date, these studies have had contradictory findings. In addition, it may be argued that using measures designed for analysis of written language to analyze transcripts of verbal narratives may lead to the entry of another source of error into the analysis.

It should also be noted that in this study, reliability was lower for coding of Baerger & McAdams’ (1999) Life Story Coherence Scale than for Foa et al.’s (1995) Content Analysis Manual. Correlations between raters’ codings of the Life Story Coherence Scale and its subscales ranged from $r = .49$ to $r = .63$. While these correlations are marginally acceptable for scales under development, they suggest that interrater reliability of these scales may have been insufficient to determine whether any of these scales actually differentiated revictimized women from non-revictimized women in this study.

Evidence that the coding of the Content Analysis Manual (Foa et al., 1995) measures used in this study was at least adequate, however, can be found in an examination of the correlations among the narrative variables. For example, all of the dialog-related categories were intercorrelated, especially “dialog – self – perpetrator” (statements made by the subject to the perpetrator) and “dialog – perpetrator – threat”
(threatening statements made by the perpetrator to the subject), suggesting memories of a two-way conversation. Three of the action-related measures, “action – self” (action taken by the subject), “action – perpetrator – threat” (threatening actions taken by the perpetrator), and “action – joint” (actions taken by the subject and the perpetrator together) were all significantly negatively correlated with “unfinished thoughts,” suggesting that women who focused on the more concrete aspects of their assault experiences were likely to talk more fluently about their assault. The same significant negative correlation existed between “unfinished thoughts” and “detail,” further supporting this supposition. Similarly, Foa’s (1995) “fragmentation” index, which consists of unfinished thoughts and speech fillers and is seen as a marker for disorganized memories of the event, was negatively correlated with action, feelings, and detail. “Organized thoughts” and “disorganized/confused thoughts” were also significantly negatively intercorrelated, as would be expected if they were accurately measuring the concepts they are intended to measure.

Interestingly, “detail” and “organized thoughts” also showed a strong and significant negative correlation. Van Minnen, Wessel, Djikstra and Roelofs (2002) found that for a group of PTSD patients ($n = 20$), there was a significant decrease in external events ($t = -2.33, p < .05$) and a significant increase in internal events ($t = -2.32, p < .05$) in their trauma narratives over the course of treatment. Bucci (1995) has theorized two orthogonal types of thinking, abstract, which focuses on internal thoughts and emotions, and concrete, which focuses on external events detail. However, in this study, neither “detail” nor “organized thoughts” significantly predicted revictimization.
An additional methodological issue that may have arisen in this study concerns the nature of the participants rather than the coding methods. Although there is substantial evidence that college students have at least as high a level of risk for sexual victimization and revictimization as women in the general population (Dowdall, 1999; Koss, Gidycz, and Wisniewski, 1987), it may be that the severity of traumatic experiences of the women in this study was lower than that typically experienced by non-college women. In addition, studies have shown that a significant percentage of women who are sexually victimized do not perceive themselves to be victims (Gidycz, Coble, Latham, & Layman, 1993; Gidycz, Hanson, & Layman, 1995). A group of participants who had suffered more severe trauma and who uniformly perceived themselves as having been victimized may have shown greater effects on the measures used in this study, even though the overall revictimization rates found in this study were similar to those reported elsewhere (e.g., Dowdall, 1999; Gidycz, Coble, Latham, & Layman, 1993; Gidycz, Hanson, & Layman, 1995; Gidycz et al., 2001).

Regardless of the reasons for this study’s lack of positive findings regarding the narrative variables, it is surprising that of all the situational and questionnaire-based variables measured in this study, only the Posttraumatic Cognitions Inventory (Foa et al., 1999) was found to measure significant differences between revictimized and non-revictimized women, and then only in regard to revictimization with unwanted sexual intercourse, and only to a marginal effect. Of the many variables that previous studies have found to be risk factors for revictimization, such as alcohol use, consensual sexual activity, PTSD symptomatology, and dissociation, none were found to be significant
among this group of participants. This may also have resulted from a low level of trauma severity among these participants, even though such variables have previously been found to effect the risk of revictimization among college students as well as among women in general.

It is conceivable that a large percentage of the women who were not revictimized during this study’s follow-up period would have been revictimized during a longer follow-up period, and that an analysis of results at that time might have revealed more significant differences between the revictimized and non-revictimized group. Since previous studies have found that women who have been sexually victimized are highly likely to be revictimized (Acierno et al., 1999; Collins, 1998; Gidycz et al., 1993, 1995; Greene & Navarro, 1998; Koss & Dinero, 1989; Merrill et al., 1999; Sorenson, Siegel, Golding, & Stein, 1991), one could reasonably expect that many more women in this study would eventually be revictimized, and that the difference between the revictimized and non-revictimized women on the variables of interest would then be found to be significant. Alternatively, the inability of the independent variables to distinguish between the two groups can be seen as a confirmation of the importance of previous sexual victimization itself as a risk factor for revictimization, overshadowing the possible significance of any of the independent variables.

Limitations

As is the case with all studies that rely on college undergraduates for participants, the generalizability of this study is limited. The participants in this study were all undergraduate female students at a large, public university in the Midwest. As has been
noted previously, these women were almost exclusively Caucasian (95%), and nearly 85% of them were 18 or 19 years of age. Among the factors that have previously been found to be associated with an increase a woman’s risk of sexual revictimization are low socioeconomic status, transience, a history of psychiatric illness, a solitary lifestyle, and living in high-crime neighborhoods (Ellis et al., 1982; Koss & Dinero, 1989; Miller et al., 1978; Skelton, 1985; Ziegenhagen, 1976). A group of generally middle-class, high-functioning college students attending a residential college in the Midwest can hardly be compared to demographics such as these. The racial makeup of this participant group, as well as the single geographic location of this study’s venue, limits the generalizability of this study even more, as the results must then be limited to Caucasian college students in the Midwest.

Directions for Future Research

Despite the lack of positive findings in this study, the possibility of identifying linguistic markers to identify women at greater risk of sexual revictimization deserves further study. The methodological differences between this and previous studies using the narrative variables suggest certain directions. For example, studies examining whether there are differences in the narratives of women who are and are not revictimized during the course of treatment for PTSD would more closely follow the methodology in which the Content Analysis Manual was previously validated (Foa, Molnar, & Cashman, 1995). The use of a longer follow-up period, participants who have been more severely traumatized or have experienced different kinds of trauma, and coding systems with greater reliability should also be examined.
It is also possible that narrative coding methods that have different theoretical bases may be found to be more successful. For example, the distinction between Detail and Thoughts in the Content Analysis Coding Manual used in this study, the former being simply descriptive and the latter being more subjective, is similar to the distinction made by Bucci (1995) between language which expresses concrete representations and that which reflects internal states. Preliminary studies suggest that this distinction may provide another way of examining coherence and integration of life experiences (Bucci, 1995; Bucci & Miller, 1993). Other researchers have focused on such putative markers of unresolved trauma as a lack of agency in self narrative (Capps and Ochs, 1995) and the prevalence of triviality or absurdity in narrative (Omer, 1994). It may well be that one of these alternative theories of trauma and narrative will prove to be more successful in identifying persons who are experiencing unresolved trauma and who are at higher risk for more traumatic experiences.
References


Pashdag, J., Dowdall, C. L., & Gidycz, C. A. (1999, November). Dissociation and revictimization in sexual assault. In J. Briere (Chair), *Correlates of trauma and dissociation*. Symposium conducted at the meeting of the International Society for Traumatic Stress Studies, Miami, FL.


Title of research proposal: Dating Behavior in College Students
Investigators: Joanna Pashdag (M.A.) & Christine A. Gidycz (Ph.D.)
Department: Psychology

I. Federal and University regulations require us to obtain signed consent for participation in research involving human subjects. After reading the statement in Section II below, please indicate your consent by signing this form.

II. STATEMENT OF PROCEDURE: The purpose of this study is to examine the relationship between previous experiences and future life events. The results of this study will aid us in understanding these relationships. If you choose to participate, you will be asked to fill out questionnaires, some of which will ask for personal or sexual information. Please consider your comfort level with these types of question before agreeing to participate in the study. This study involves no physical risks for participants. However, some individuals might experience minor, temporary emotional discomfort. Participation is voluntary, and you may stop responding and withdraw from the study at any point without penalty. If you have any questions or concerns, the experimenter will be there to assist you. Your total participation should take approximately one hour, and you will receive one credit at the end of the questionnaire session. You may also be asked to take part in an optional interview approximately 30 minutes in length, for which you would receive one additional credit. If you take part in the interview, you will also be asked to take part in one additional follow-up session at the end of next quarter, during which would will fill out additional questionnaires, and for which you would be paid $20.

You will receive an identification number to put on your answer sheet. A master list of names and identification numbers will be kept in a locked file cabinet in a locked office, and will be accessible only by the principal investigators. This master list of names will be destroyed following the completion of the project (approximately 1 year). Any information you provide to the experimenters is confidential. However, if you agree to take part in the optional interview, the principal investigator will review your answers to certain questions to see whether you are eligible for the interview.

The principal investigators for this study are Joanna Pashdag (M.A.) & Christine A. Gidycz (Ph.D.). If you have any questions regarding this survey, please contact either of the following investigators:

Joanna Pashdag 44-M Porter Hall (592-2726)
Christine A. Gidycz 231 Porter Hall (593-1092)
If you have any questions that need immediate attention, please feel free to ask the administrator of the survey.

I certify that I have read and fully understand the Statement of Procedure and agree to participate as a subject in the research described therein. My participation is given voluntarily and without coercion or undue influence. I understand that I may discontinue participation at any time without penalty or loss of any benefits to which I may otherwise be entitled. I agree that all risk has been explained to my satisfaction and I understand that no compensation is available to me from Ohio University and its employees for any injury resulting from my participation in this research. I certify that I am at least eighteen years of age or have obtained written consent from my parent or guardian.

Signature: _____________________________________________

Name (print): ______________________________
Date: ____________________________
Title of research proposal: Dating Behavior in College Students

Investigators: Joanna Pashdag (M.A.) & Christine A. Gidycz (Ph.D.)

Department: Psychology

I. Federal and University regulations require us to obtain signed consent for participation in research involving human subjects. After reading the statement in Section II below, please indicate your consent by signing this form.

II. STATEMENT OF PROCEDURE: This interview is part of a multi-part study. Its purpose is to examine the relationship between previous experiences and future life events. The results of this study will aid us in understanding these relationships. Today you will be asked to participate in an interview regarding certain sexual experiences. Please consider your comfort level with discussing such experiences before agreeing to participate in the study. This study involves no physical risks for participants. However, some individuals might experience emotional discomfort. Participation is voluntary, and you may stop responding and withdraw from the study at any point without penalty. If you have any questions or concerns, the interviewer, who is a Doctoral student in Clinical Psychology, will be available to assist you. Your participation today should take approximately 30 minutes. You will receive 1 credit for the interview.

Your interview will be recorded on audiotape. Only your identification number will be on the audiotape; your name will not be used. The audiotape will be transcribed by either the principal investigator or an undergraduate psychology research assistant assigned to this study. Only your identification number will appear on the transcript. Following the transcription, the audiotape will be erased. This procedure will assure your anonymity and confidentiality.

The principal investigators for this study are Joanna Pashdag (M.A.) & Christine A. Gidycz (Ph.D.). If you have any questions regarding this study, please contact either of the following investigators:

Joanna Pashdag 44-M Porter Hall (592-2726)
Christine A. Gidycz 231 Porter Hall (593-1092)

I certify that I have read and fully understand the Statement of Procedure and agree to participate as a subject in the research described therein. My participation is given voluntarily and without coercion or undue influence. I understand that I may discontinue participation at any time without penalty or loss of any benefits to which I may otherwise be entitled. I agree that all risk has been explained to my satisfaction and I understand that no compensation is available to me from Ohio University and its employees for any
injury resulting from my participation in this research. I certify that I am at least eighteen years of age or have obtained written consent from my parent or guardian.

Signature: _____________________________________________

Name (print):
Date: ______________________
Title of research proposal: Dating Behavior in College Students

Investigators: Joanna Pashdag (M.A.) & Christine A. Gidycz (Ph.D.)
Department: Psychology

I. Federal and University regulations require us to obtain signed consent for participation in research involving human subjects. After reading the statement in Section II below, please indicate your consent by signing this form.

II. STATEMENT OF PROCEDURE: This is the second part of a multi-part study. Its purpose is to examine the relationship between previous experiences and future life events. The results of this study will aid us in understanding these relationships. Today you will be asked to fill out questionnaires and your participation will take no more than one hour. You will receive $20 at the end of today's session. This study involves no physical risks for participants. However, some individuals might experience minor, temporary emotional discomfort. Participation is voluntary, and you may stop responding at any point and withdraw from the study without penalty. If you have any questions or concerns, the experimenter will be there to assist you.

Your answers will be kept strictly confidential. Remember that your answers are anonymous. Even the experimenters do not know which answers are yours. We are interested in group differences, not individual persons' responses.

The principal investigators for this study Joanna Pashdag (M.A.) & Christine A. Gidycz (Ph.D.). If you have any questions regarding this survey, please contact any of the following investigators:

Joanna Pashdag 44-M Porter Hall (592-2726)
Christine A. Gidycz 231 Porter Hall (593-1092)

If you have any questions that need immediate attention, please feel free to ask the administrator of the survey.

I certify that I have read and fully understand the Statement of Procedure and agree to participate as a subject in the research described therein. My participation is given voluntarily and without coercion or undue influence. I understand that I may discontinue participation at any time without penalty or loss of any benefits to which I may otherwise be entitled. I agree that all risk has been explained to my satisfaction and I understand that no compensation is available to me from Ohio University and its employees for any injury resulting from my participation in this research.
I certify that I am at least eighteen years of age, or I have received written consent from my parent or guardian.

Signature: ______________________________________________

Name (print): ________________________________

Date: ________________________________
Appendix B - Demographic Questionnaire

**DIRECTIONS:** Please use the green answer sheet – do not write on this paper. We would like to start by asking you some general information first. Please fill in the appropriate letter on the green answer sheet.

1. What is your age?
   - A. 18
   - B. 19
   - C. 20
   - D. 21
   - E. 22
   - F. Over age 22

2. What is your current year in school?
   - A. Freshman
   - B. Sophomore
   - C. Junior
   - D. Senior
   - E. Graduate
   - F. Other

3. What is your ethnicity?
   - A. Caucasian, Non-Hispanic
   - B. African American
   - C. Asian or Pacific Islander
   - D. Hispanic
   - E. American Indian or Alaska Native
   - F. Other

4. What is your religion?
   - A. Catholic
   - B. Protestant
   - C. Jewish
   - D. Nondenominational
   - E. None
   - F. Other

5. What is your sexual orientation?
   - A. Heterosexual
   - B. Homosexual
   - C. Bisexual

6. What is your current marital status?
   - A. Never married
   - B. Co-habitating
   - C. Married
   - D. Separated
   - E. Divorced
   - F. Widowed

7. What is your current dating status?
   - A. I do not date.
   - B. I date casually.
   - C. I am involved in a long-term monogamous relationship (duration of 6 months or longer).
   - D. I am engaged.
   - E. I am married.

8. Have you ever willingly had sexual intercourse?
   - A. Yes
   - B. No

9. How old were you when you first willingly had sexual intercourse?
   - A. Does not apply - I have never willingly had sexual intercourse.
   - B. 13 years old or younger
10. How many consensual (not forced) sexual partners have you had?
   A. 0       C.  2        E.  4   G.  6
   B. 1       D.  3         F.  5   H.  7 or more

11. How often do you drink alcohol?
   A. I never drink or have not drunk in the past year.
   B. I drink less than once a month, but at least once in the past year.
   C. I drink one to three times a month.
   D. I drink one to two times a week.
   E. I drink more than twice a week.

12. On a typical drinking occasion, how much do you usually drink? (Choose one)
   A. None
   B. Usually no more than 3 cans of beer (or 2 glasses of wine or 2 drinks of distilled spirits)
   C. Usually no more than 4 cans of beer (or 3 glasses of wine or 3 drinks of distilled spirits)
   D. Usually no more than 5 or 6 cans of beer (or 4 glasses of wine or 4 drinks of distilled spirits)
   E. Usually more than 6 cans of beer (or 5 or more glasses of wine or distilled spirits)

13. In the last two months, how often did you drink to the point of intoxication or drunkenness (that is, feeling dizzy, feeling ill, passing out, or feeling out of control? (Estimate if you are unsure. Choose one.)
   A. I have never drank to the point of being drunk.
   B. I got drunk 1-3 times in the past two months.
   C. I got drunk 4-5 times in the past two months.
   D. I got drunk 6-10 times in the past two months.
   E. I got drunk 11-15 times in the past two months.
   F. I got drunk 16-20 times in the past two months.
   G. I got drunk 21-25 times in the past two months.
   H. I got drunk more than 25 times in the past two months.
Appendix C - Sexual Experiences Surveys

i. Adolescent Victimization

**Please answer the following questions about your sexual experiences from age 14 on.**

Have you had any of these experiences from the age of 14 on?

1. Have you ever given in to sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because you were overwhelmed by a man's continual arguments and pressure? (From age 14 on)
   a. No    b. Yes

2. Have you had sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because a man used his authority (boss, teacher, camp counselor, supervisor) to make you? (From age 14 on)
   a. No    b. Yes

3. Have you had sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) (From age 14 on)
   a. No    b. Yes

4. Have you had a man attempt sexual intercourse (get on top of you, attempt to insert his penis) when you didn't want to by threatening or using some degree of force (twisting your arm, holding you down, etc.) but intercourse did not occur? (From age 14 on)
   a. No    b. Yes

5. Have you had a man attempt sexual intercourse (get on top of you, attempt to insert his penis) when you didn't want to by giving you alcohol or drugs, to prevent you from resisting, but intercourse did not occur? (From age 14 on)
   a. No    b. Yes

6. Have you given in to sexual intercourse when you didn't want to because you were overwhelmed by a man's continual arguments and pressure? (From age 14 on)
   a. No    b. Yes

7. Have you had sexual intercourse when you didn't want to because a man used his position of authority (boss, teacher, counselor, supervisor)? (From age 14 on)
   a. No    b. Yes

8. Have you had sexual intercourse when you didn't want to because a man gave you alcohol or drugs to prevent you from resisting? (From age 14 on)
   a. No    b. Yes
9. Have you had sexual intercourse when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you? (From age 14 on)
   a. No    b. Yes

10. Have you had sexual acts (anal or oral intercourse or penetration by objects other than the penis) when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you? (From age 14 on)
    a. No    b. Yes

11. Look back at questions 1-10. What is the highest question number to which you answered "yes"?
    a.1     f.6
    b.2     g.7
    c.3     h.8
    d.4     i.9
    e.5     j.10

***For the following questions, refer to the highest question number to which you answered "yes". If you have had this experience with more than one person on different occasions, refer to the most significant time this occurred.

12. How many men did this experience involve?
    a. One man (1)
    b. Two men(2)
    c. Three or more men

13. What was your relationship to the man/men at the time? (If more than one man was involved, what was your relationship to the most significant one?)
    a. Stranger
    b. Non-romantic acquaintance (friend, neighbor, ex-husband, etc.)
    c. Casual or first date
    d. Romantic acquaintance (steady date, boyfriend, lover)
    e. Husband
    f. Father
    g. Step-father
    h. Uncle
    i. Brother

14. How well did you know him/them?
    a. Didn't know at all    d. Very well acquainted
b. Slightly acquainted            e. Extremely well acquainted
   c. Moderately acquainted

15. How many times has he/they done this to you?
   a. 1            d. 4
   b. 2            e. 5 or more
   c. 3

16. How long ago did it happen?
   a. Less than 3 months   d. 1-2 years
   b. 3-6 months           e. 3-5 years
   c. 6 months to a year   f. Over 5 years
ii. Adult victimization

Please answer the following questions about your experiences during this academic quarter.

Have you had any of these experiences this quarter?

1. Have you given in to sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because you were overwhelmed by a man's continual arguments and pressure? (During the quarter)
   a. No   b. Yes

2. Have you had sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because a man used his authority (boss, teacher, camp counselor, supervisor) to make you? (During the quarter)
   a. No   b. Yes

3. Have you had sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) (During the quarter)
   a. No   b. Yes

4. Have you had a man attempt sexual intercourse (get on top of you, attempt to insert his penis) when you didn't want to by threatening or using some degree of force (twisting your arm, holding you down, etc.) but intercourse did not occur? (During the quarter)
   a. No   b. Yes

5. Have you had a man attempt sexual intercourse (get on top of you, attempt to insert his penis) when you didn't want to by giving you alcohol or drugs, to prevent you from resisting, but intercourse did not occur? (During the quarter)
   a. No   b. Yes

6. Have you given in to sexual intercourse when you didn't want to because you were overwhelmed by a man's continual arguments and pressure? (During the quarter)
   a. No   b. Yes

7. Have you had sexual intercourse when you didn't want to because a man used his position of authority (boss, teacher, counselor, supervisor)? (During the quarter)
   a. No   b. Yes

8. Have you had sexual intercourse when you didn't want to because a man gave you alcohol or drugs to prevent you from resisting? (During the quarter)
   a. No   b. Yes
9. Have you had sexual intercourse when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you? (During the quarter)
   a. No   b. Yes

10. Have you had sexual acts (anal or oral intercourse or penetration by objects other than the penis) when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you? (During the quarter)
   a. No   b. Yes

11. Look back at questions 1-10. What is the highest question number to which you answered "yes"?
   a. 1   f. 6
   b. 2   g. 7
   c. 3   h. 8
   d. 4   i. 9
   e. 5   j. 10

***For the following questions, refer to the highest question number to which you answered "yes". If you have had this experience with more than one person on different occasions, refer to the most significant time this occurred.

12. How many men did this experience involve?
   a. One man (1)
   b. Two men (2)
   c. Three or more men

13. What was your relationship to the man/men at the time? (If more than one man was involved, what was your relationship to the most significant one?)
   a. Stranger
   b. Non-romantic acquaintance (friend, neighbor, ex-husband, etc.)
   c. Casual or first date
   d. Romantic acquaintance (steady date, boyfriend, lover)
   e. Husband
   f. Father
   g. Step-father
   h. Uncle
   i. Brother

14. How well did you know him/them?
   a. Didn't know at all   d. Very well acquainted
b. Slightly acquainted  e. Extremely well acquainted  
c. Moderately acquainted  

15. How many times has he/they done this to you?  
   a. 1  d. 4  
   b. 2  e. 5 or more  
   c. 3  

16. How long ago did it happen?  
   a. Less than 3 months  d. 1-2 years  
   b. 3-6 months  e. 3-5 years  
   c. 6 months to a year  f. Over 5 years
Appendix D – Traumatic Events Questionnaire

DIRECTIONS: Many people have lived through or witnessed a very stressful and traumatic event at some point in their lives. Below is a list of traumatic events. For each event, indicate "yes" if the event has happened to you or if you have witnessed the event.

A. Yes
B. No

1. Serious accident, fire, or explosion (for example, an industrial, farm, car, plane, or boating accident)

2. Natural disaster (for example, tornado, hurricane, flood, or major earthquake)

3. Non-sexual, physical assault by a family member or someone you know prior to the age of 14

4. Non-sexual, physical assault by a family member or someone you know after the age of 14

5. Non-sexual, physical assault by a stranger prior to the age of 14

6. Non-sexual, physical assault by a stranger after the age of 14

7. Emotional abuse or physical or emotional neglect by a family member prior to the age of 14

8. Military combat or a war zone

9. Sexual contact when you were younger than 14 with someone who was 5 or more years older than you (for example, contact with genitals, breast)

10. Imprisonment (for example, prison inmate, prisoner of war, hostage)

11. Torture

12. Life-threatening illness
Appendix E - Impact of Event Scale - Revised (IES-R)

DIRECTIONS: The following is a list of difficulties people sometimes have after stressful life events. If you answered "yes" to any question numbered (numbers to come from SES), please read the following statements and indicate how distressing each difficulty has been for your during the past 7 days with respect to the highest number question to which you answered "yes." Use the following scale:

A. Not at all  
B. A little bit  
C. Moderately  
D. Quite a bit  
E. Extremely

1. Any reminder brought back feelings about it.
2. I had trouble staying asleep.
3. Other things kept making me think about it.
4. I felt irritable and angry.
5. I avoided letting myself get upset when I thought about it or was reminded of it.
6. I thought about it when I didn't mean to.
7. I felt as if it hadn't happened or wasn't real.
8. I stayed away from reminders about it.
9. Pictures about it jumped into my mind.
10. I was jumpy and easily startled.
11. I tried not to think about it.
12. I was aware that I still had a lot of feelings about it, but I didn't deal with them.
13. My feelings about it were kind of numb.
14. I found myself acting or feeling like I was back at that time.
15. I had trouble falling asleep.
A. Not at all  
B. A little bit  
C. Moderately  
D. Quite a bit  
E. Extremely

16. I had waves of strong feelings about it.

17. I tried to remove it from my memory.

18. I had trouble concentrating.

19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.

20. I had dreams about it.

21. I felt watchful and on guard.

22. I tried not to talk about it.
Appendix F – Peritraumatic Dissociative Experiences Questionnaire

If you answered "yes" to any question numbered (numbers to come from SES), please read the following statements and mark the choice that best describes your experiences and reactions during and immediately after the highest number question to which you answered "yes."

Please use the following scale:

A. Not at all true
B. Slightly true
C. Somewhat true
D. Very true
E. Extremely true

1. I had moments of losing track of what was going on – I "blanked out" or "spaced out" or in some way felt that I was not part of what was going on.

2. I found that I was on "automatic pilot" – I ended up doing things that I later realized I hadn't actively decided to do.

3. My sense of time changed – things seemed to be happening in slow motion.

4. What was happening seemed unreal to me, like I was in a dream or watching a movie or play.

5. I felt as though I were a spectator watching what was happening to me, as if I were floating above the scene or observing it as a spectator.

6. There were moments when my sense of my own body seemed distorted or changed. I felt disconnected from my own body, or that it was unusually large or small.

7. I felt as though things that were actually happening to others were happening to me – like I was being trapped when I really wasn't.

8. I was surprised to find out afterward that a lot of things had happened at the time that I was not aware of, especially things I ordinarily would have noticed.

9. I felt confused; that is, there were moments when I had difficulty making sense of what was happening.

10. I felt disoriented; that is, there were moments when I felt uncertain about where I was or what time it was.
Appendix G – Dissociative Experiences Survey Revised – Version 2

Mark the answer that shows how much this happens to you. Use the following scale:

This happens:
1. Never
2. It has happened once or twice.
3. No more than once a year.
4. Once every few months.
5. At least once a month.
6. At least once a week.

1. Some people have the experience of driving a car and suddenly realizing that they don't remember what has happened during all or part of the trip.

2. Some people find sometimes that they are listening to someone talk and they suddenly realize that they did not hear all or part of what has just been said.

3. Some people have the experience of finding themselves in a place and they have no idea how they got there.

4. Some people have the experience of finding themselves dressed in clothes that they don't remember putting on.

5. Some people have the experience of finding new things among their belongings that they do not remember buying.

6. Some people sometimes find that they are approached by people that they do not know who call them by name or insist that they have met before.

7. Some people sometimes have the experience of feeling as though they are standing next to themselves or watching themselves do something and they actually see themselves as if they were looking at another person.

8. Some people are told that they do not recognize friends or family members.

9. Some people find that they have no memory for some important events in their lives, for example a wedding or graduation.
1. Never
2. It has happened once or twice.
3. No more than once a year.
4. Once every few months.
5. At least once a month.
6. At least once a week.

10. Some people have the experience of being accused of lying when they do not think that they have lied.

11. Some people have the experience of looking in a mirror and not recognizing themselves.

12. Some people sometimes have the experience of feeling that other people, objects, and the world around them are not real.

13. Some people sometimes have the experience of feeling that their body does not seem to belong to them.

14. Some people have the experience of sometimes remembering a past event to vividly that they feel as if they were reliving that event.

15. Some people have the experience of not being sure if things that they remember happening really did happen or whether they just dreamed them.

16. Some people have the experience of being in a familiar place and finding it strange and unfamiliar.

17. Some people find that when they are watching television or a movie they become so absorbed in the story that they are unaware of other events happening around them.

18. Some people find that they become so involved in fantasy or a daydream that it feels as though it were really happening to them.

19. Some people find that they are sometimes able to ignore pain.

20. Some people find that they sometimes sit staring off into space thinking of another event and are not aware of the passage of time.

21. Some people sometimes find that when they are alone they sometimes talk out loud to themselves.

22. Some people find that in one situation they may act so differently compared to another situation that they feel almost as if they were two different people.
1. Never  
2. It has happened once or twice.  
3. No more than once a year.  
4. Once every few months.  
5. At least once a month.  
6. At least once a week.  

23. Some people sometimes feel that in some situations they are able to do things with amazing ease and spontaneity that would usually be difficult for them, for example, sports or social situations, etc.  

24. Some people sometimes find that they cannot remember whether they have done something or have just thought about doing that thing, for example, whether they have just mailed a letter or just thought about mailing it.  

25. Some people sometimes find evidence that they have done things that they do not remember doing.  

26. Some people sometimes find writings, drawings, or notes among their belongings that they must have done but cannot remember doing.  

27. Some people sometimes find that they hear voices in their head that tell them to do things or comment on what they are doing.  

28. Some people sometimes feel as if they are looking at the world through a fog so that people or objects appear far away or unclear.  

29. Some people find that when they are reading a book, they sometimes lose track of what happens around them for a period of time.  

30. Some people have had the experience of being in a situation that would usually make them very emotional, but feel no emotion at all (although they are very aware of what is happening around them).  

31. Some people have had the experience of smelling an odor or hearing a sound and then briefly "spacing out" or becoming lost in a memory or thought.  

32. Some people find themselves singing the words to a song they know, but do not remember when they started singing it or how it came into their minds.  

33. Some people find themselves driving someplace automatically that they go to frequently, such as their office, workplace, or school, when they meant to take a different road or route to someplace else.
1. Never
2. It has happened once or twice.
3. No more than once a year.
4. Once every few months.
5. At least once a month.
6. At least once a week.

34. Some people are able to self-hypnotize or meditate and become unaware of their surroundings very easily.

35. Some people bite their fingernails and don't realize they are doing it.

36. Some people find that when others tell them a story of anger or pain, they "catch" the feeling and find it difficult not to become angry, sad, or anxious themselves.

37. Some people find that they become so absorbed in sad movies that they cry.

38. Some people find that when they see a frightening movie, they continue to be frightened after the movie ends and they are out of the theater.

39. Some people find that when they are telling an emotional story, they get so caught up in the emotion that they lose their place and can't remember what they have said and/or what point they are making.

40. Some people find that when they are part of an emotional crowd experience, like a ball game or a music performance, they become caught up in the crowd's behavior and do or say things that are different than the way they would normally behave.

41. Some people find that an event on the news captures their attention so vividly that they cannot stop watching it or thinking about it.
Appendix H – Posttraumatic Cognitions Inventory

If you answered "yes" to any question numbered (numbers to come from SES), please read the following statements and indicate how much you AGREE or DISAGREE with each statement. Answer with respect to the highest number question to which you answered "yes."

People react to events in many different ways. There are no right or wrong answers to these statements.

Please use the following scale:

1. Totally disagree
2. Disagree very much
3. Disagree slightly
4. Neutral
5. Agree slightly
6. Agree very much
7. Totally agree

1. The event happened because of the way I acted.
2. I can't trust that I will do the right thing.
3. I am a weak person.
4. I will not be able to control my anger and will do something terrible.
5. I can't deal with even the slightest upset.
6. I used to be a happy person but now I am always miserable.
7. People can't be trusted.
8. I have to be on guard all the time.
9. I feel dead inside.
10. You can never know who will harm you.
11. I have to be especially careful because you never know what can happen next./
12. I am inadequate.
13. I will not be able to control my emotions, and something terrible will happen.
14. If I think about the event, I will not be able to handle it.
15. The event happened to me because of the sort of person I am.
16. My reactions since the event mean that I am going crazy.
17. I will never be able to feel normal emotions again.
18. The world is a dangerous place.
19. Somebody else would have stopped the event from happening.
20. I have permanently changed for the worse.
21. I feel like an object, not a person.
22. Somebody else would not have gotten into this situation.
23. I can't rely on other people.
24. I feel isolated and set apart from others.
25. I have no future.
26. I can't stop bad things from happening to me.
27. People are not what they seem.
28. My life has been destroyed by the event.
29. There is something wrong with me as a person.
30. My reactions since the event show that I am a lousy coper.
31. There is something about me that made the event happen.
32. I will not be able to tolerate my thoughts about the event, and I will fall apart.
33. I feel like I don't know myself anymore.
34. You never know when something terrible will happen.
35. I can't rely on myself.

36. Nothing good can happen to me anymore.
The first step in the analysis of verbal material is to divide the text into discrete units that can then be coded for content. The following are guidelines suggested for dividing (i.e.; "chunking") the text. (NOTE: These rules are to be followed in transcribing narratives.)

**CHUNKING (Transcription) RULES:**

A chunk is a clause which may include an action but which is divided such that all words pertain to one and only one thought.

Chunking is guided by, but is not limited to, locating subject-verb phrases.

1. A second chunk may be an elaboration of a previous thought.

2. Any repetition of a previous chunk is a new chunk.

3. Causal statements such as "if-then" (as well as compound causal statements), "in order to", "because", "but", "and", "so", etc., are considered as two chunks.
   
   For example:
   
   "If he comes around to the other side of the bathroom/
   I'm gonna hold onto both sides of the door/
   so that he can't come in"

4. Unfinished clauses are considered as separate thoughts and comprise one separate chunk per thought (unfinished thoughts = sentences attempted but not completed).

5. Dots represent a pause and pauses imply separate chunks except when dots occur in the middle of a complete sentence or thought. In this case, one chunk rather than two is appropriate.

6. "Speech fillers" such as "um", "you know", "I mean", etc., are separate chunks.

7. "Self-dialogue" (thinking aloud) is chunked according to normal rules. Dialogue of other people is one single chunk.

Once the text is "chunked," the next step is to code for content.

The following are rules suggested for categorizing the content of the text.

Any chunk can be categorized as having one and only one code. In most cases, the appropriate code is evident, however, if a chunk falls into one of two categories, refer to the priority list below to determine the appropriate code. For example, the sentence "I don't know how many feet away he was." could be coded as DETAIL, however, since
THOUGHTS are higher on the list, the appropriate code would then be DISORGANIZED THOUGHT.

Priority List:

1. Thoughts
2. Feelings
3. Sensations
4. Actions
5. Details
6. Dialogue
7. Unfinished thoughts
8. Repetitions
9. Speech Fillers

CATEGORIZATION RULES

I. THOUGHTS

THOUGHTS are chunks reflecting cognitive processing (i.e., rationalizing, questioning, planning escape, etc.) of events surrounding the rape. This category is subdivided in three classes: ORGANIZED THOUGHTS, DISORGANIZED/CONFUSED THOUGHTS, and DESPERATE THOUGHTS.

A. ORGANIZED THOUGHTS - chunks that involve attempts to understand what is happening such as planning, reasoning, hypothesis-setting, decision-making, realizing, etc.

For example, the following excerpts: "If he comes around to the other side of the bathroom/ I'm gonna hold onto both sides of the door/so that he can't come in" and "I decided if I wait until he turns around/then I can have a chance to grab the key/and run away" would be considered as ORGANIZED THOUGHTS.

B. DISORGANIZED/CONFUSED THOUGHTS - chunks that involve confusion or disjointed thinking, such as questioning, expressions of uncertainty, being overwhelmed, ambiguousness, etc.

For example, "I'm thinking why is he doing this to me?/Why is this happening to me?"; "I don't remember doing that"; "I can't believe he's not listening to me" would all be categorized as DISORGANIZED /CONFUSED THOUGHTS.

C. DESPERATE THOUGHTS - chunks implying that all coping methods/problem-solving strategies are no longer possible and that this is the last and
possibly the most extreme effort to escape negative consequences. Often the probability of success is slim. (i.e., pleading, praying, denying, suicidal statements, etc.).

For example, "I'm begging him not to kill me", "I've given up completely", "Nothing I do or say is going to help me now" would all be coded as DESPERATE THOUGHTS.

Note: However, the phrase "I am desperate" should be coded as NEGATIVE FEELING.

II. FEELINGS

FEELINGS are chunks depicting the expression of emotion by the victim. This category is subdivided in three classes: POSITIVE FEELINGS, NEGATIVE FEELINGS, and ADAPTIVE ANGRY FEELINGS.

A. POSITIVE FEELINGS - chunks that involve the verbal expression of "pleasant" emotions such as relief, security, pride, happiness, etc. by the subject. Chunks coded as POSITIVE FEELING can be identified by the words "I am," or "I feel";

For example, "and I'm feeling that surely at this moment someone is going to come and help me," " I am glad that this is over."

B. NEGATIVE FEELINGS - chunks that involve the verbal expression of "unpleasant" emotions such as humiliation, fear, sadness, shock, numbing/freezing, etc. by the subject. Chunks coded as NEGATIVE FEELING can be identified by the words "I am," or "I feel";

For example, "I'm petrified that I am going to die," "I feel so much pain in my shoulder."

C. ADAPTIVE ANGRY FEELINGS - chunks that involve the verbal expression of "coping" emotions such as anger, disgust, outrage, etc. by the subject. Chunks coded as ADAPTIVE ANGRY FEELINGS can be identified by the words "I am";

For example, "I'm just so appalled at their idiocy," "I hate him so much."

III. ACTIONS

ACTION is any behavior that is observable and that can potentially influence the environment. It will often involve physical movement but this is not a requirement of the category.
For example, "I was having a discussion with her" would be coded as an action but "I was waiting for the bus" would not be coded as an action. This category is subdivided in five classes: ACTION-SELF, ACTION-PERPETRATOR-THREAT, ACTION-PERPETRATOR-NON-THREAT, ACTION-JOINT, and ACTION-OTHER.

A. ACTION-SELF - chunks that involve verbal statements which denote any action taken by the subject (i.e., "I pushed him off me," "I parked the car," "I'm going down the street," or "I went to the phone").

Note 1: Actions taken by the subject jointly with anyone other than the perpetrator are categorized as ACTION-SELF.

For example, "We (my husband and I) went to the police station."

Note 2: A chunk involving the passive voice ("I was bruised," "I was taken to the car.") does not specifically denote action taken by the self or the perpetrator but instead describes the end results of some action and is therefore categorized as DETAIL unless a particular sensation or feeling is named.

B. ACTION-PERPETRATOR-THREAT - chunks that involve verbal statements which denote any action taken by the rapist that frightens or intimidates the victim (i.e., grabbing, following, harassing, etc.).

For example, "He tried to put his hand up my skirt"; "He pushes me down/ he's standing or kneeling on my ankles"; "He kinda keeps grabbing me around the waist trying to get me to dance very closely with him."

C. ACTION-PERPETRATOR-NON-THREAT - chunks that involve verbal statements which denote any action taken by the perpetrator that does not frighten or intimidate the victim.

For example, "He got me a drink"; "He went to the kitchen to get a drink"; "He helped me find my clothes"; "He moved away from me."

Note: The following chunk, "He was walking behind me," would be considered as ACTION PERPETRATOR-NON-THREAT if the action takes place before the man has been identified as a perpetrator. However, the same action would be considered as ACTION-PERPETRATOR-THREAT if it were to take place after the man has been identified as a perpetrator (see also RULES FOR IDENTIFYING ASSAULT SITUATIONS).

D. ACTION-JOINT - chunks that involve actions taken by both the subject and the perpetrator at the same time (i.e., "We went to the parking lot"; "We take the
elevator up"; "We go into the apartment"; "Then we start kissing/ and dancing/ and gradually we walk over to the bed").

Note: Only actions involving the self and the perpetrator are categorized as ACTION-JOINT. Actions involving the victim and someone other than the perpetrator are categorized as ACTION-SELF. Actions involving the perpetrator and someone else are categorized as ACTION-PERPETRATOR.

E. ACTION-OTHER - chunks involving actions taken by persons not designated as self or perpetrator (such as the police).

For example, "The police handcuffed him"; "The doctor examined me"; "My mother stayed with me for the rest of the night."

Note: As a general guideline, given that the rape scene only involves a perpetrator and a victim, there will be no chunks coded as ACTION-OTHER during the description of the rape (see also RULES FOR IDENTIFYING ASSAULT SITUATIONS).

IV. SENSATIONS

SENSATIONS are chunks involving direct statements of physical sensation limited to the four senses (hearing, seeing, smelling, touching) such as "It smelled like gasoline in the room." Also, "My whole body hurts", "It feels like my head is spinning around," "I still feel him on me" would be coded as SENSATION.

Note: The use of vision as a sensation is very limited. Even though "seeing" can connote sensation or realization, it should be coded as sensation only when a direct statement of the physical sense is made and the statement made is a specific reference to a particular visual image that includes at least one observable detail. Therefore, the phrase "I saw that this was going to be futile" would be coded as ORGANIZATIONAL THOUGHT, whereas the phrase "I saw that his hands were big and scary " would be coded as SENSATION.

V. DETAILS

DETAILS are chunks involving description or elaboration. For example, "I went upstairs/I sat on the end of the bed/I was so tired/I didn't have the energy to get up" would be coded as ACTION-SELF, ACTION-SELF, DETAIL, DETAIL, respectively.

A description is a chunk that gives more information about a person or situation without including an action (i.e., "There was no place to park" or descriptions of physical characteristics as in "He had blue eyes," "He was wearing brown shoes," etc.). A description involving statements of actions not taken is coded as DETAIL (i.e., "I didn't park in that space").
An elaboration is a repetition of a previous chunk with some information added, for example, "I drove to Broad Street./.. to South Broad Street." would be coded as ACTION-SELF and as DETAIL, respectively.

Note 1: A DETAIL frequently does not contain a verb. If a verb is included in the chunk, it does not denote any action taken (i.e., "There was no place to park").

Note 2: Unusual perceptual phenomena such as hallucinations, dream sequences, fantasies, etc. are to be considered as DETAIL given that these are events that have not actually occurred. Those events that have actually occurred, such as any past event which is being described from memory, are to be coded according to normal rules. For example, "I feel I can see my daughter/only she's real little/she's crying...mommy" would all be coded as DETAIL.

VI. DIALOGUE

DIALOGUE is any direct or indirect statement that is intended to be heard by another person. For example, "I said 'Go to the store.'" and "I said that he should go to the store" would both be coded as DIALOGUE. This category is subdivided in five classes: DIALOGUE-PERPETRATOR-THREAT, DIALOGUE-PERPETRATOR-NON-THREAT, DIALOGUE-SELF-PERPETRATOR, DIALOGUE-SELF-OTHER, and DIALOGUE-OTHER.

A. DIALOGUE-PERPETRATOR-THREAT - chunks that involve any verbalization made by the perpetrator to the victim that frightens or intimidates the victim (i.e.; rape-related comments, references to physical harm, verbal cruelty, etc.).

For example, "I'm not finished with you yet," "If you tell anyone I'll kill you," "He told me to stop yelling/because no one can hear you" would be coded as DIALOGUE-PERPETRATOR-THREAT.

B. DIALOGUE-PERPETRATOR-NON-THREAT - chunks that involve any verbalization made by the perpetrator to the victim that does not frighten or intimidate her.

For example, the sentence, "What time is it?" would be considered as non-threatening dialogue; however, as in the case of ACTIONS, contextual cues should be observed in distinguishing threat from non-threat. The same sentence previously considered as non-threatening would be considered as threatening after the man has been identified as the perpetrator.

For example, "The strange-looking man grabbed me and pulled me into the alley/He asked me 'What time is it'?". Other examples of DIALOGUE-
PERPETRATOR-NON-THREAT might be: "He goes just come in here and sit down/I want to talk to you about something," "Don't worry I'm not going to hurt you," etc.

C. DIALOGUE-SELF-PERPETRATOR - chunks that involve any verbalization made by the victim to the perpetrator that does not fit into any other category.

For example "Get away from me/ or I'm calling the cops; "and I keep telling him ...I'm half asleep/but I know I keep saying I'm not sleeping with you/I've only slept with one person/I don't want to sleep with you" would all be coded as DIALOGUE SELF-PERPETRATOR.

D. DIALOGUE-SELF-OTHER - chunks that involve any verbalization made by the victim to someone other than the perpetrator.

For example, "I told her we went somewhere else," "I asked my father to call the police and to get over to where I am," "I'm telling (the security guards) that I need medical attention" would be coded as DIALOGUE SELF-OTHER.

E. DIALOGUE-OTHER - chunks that involve any verbalization made by persons other than the victim or the perpetrator and that does not fit into any other category. For example, "My sister told me she'd call me tonight."

Note: As in ACTION-OTHER, dialogue involving people other than the perpetrator and the victim will not occur during the actual rape situation. Chunks coded as DIALOGUE-SELF-OTHER and as DIALOGUE-OTHER will most likely be found before and after the rape situation (see also RULES FOR IDENTIFYING ASSAULT SITUATIONS).

VII. NON-FUNCTIONAL UTTERANCES

NON-FUNCTIONAL UTTERANCES are chunks involving verbal material that does not add any new information, such as incomplete thoughts, colloquialisms, repeated chunks, and uncodeable chunks. This category is subdivided in four classes: UNFINISHED THOUGHTS, SPEECH FILLERS, REPETITION, and NOT CODED.

A. UNFINISHED THOUGHTS - chunks that involve a sentence attempted but not completed or just single words relating to ideas. Unfinished thoughts are often followed by the completed idea, which is then categorized accordingly. For example, "So then he... /... didn't... / " would be coded as two UNFINISHED THOUGHTS.

Note: If a chunk technically should be considered as UNFINISHED THOUGHT but there is enough information to place it in some other category, then place it in that category. For example, "I walked to the../" would be coded as ACTION-SELF.
However, the chunk "I felt kind of../ you know.." would be coded as UNFINISHED THOUGHT and SPEECH FILLER, respectively.

B. SPEECH FILLERS - chunks that involve commonly used words or phrases such as "ok," "let me see," "you know," etc. that carry no meaning in and of themselves and are exclusively colloquial.

Note: If a chunk technically should be considered as SPEECH FILLER but there is enough information to place it in some other category, then place it in that category.

C. REPETITION - chunks involving repetitions of a previous chunk in which no new information is given. Any repetition occurring as far away after one page of the original statement is coded according to normal rules. For example, "...and I start fighting/ I'm fighting" would be coded as ACTION SELF, REPETITION, respectively.

Note: If any new information is given, code as DETAIL. For example, "...and I start fighting /I'm fighting him with both hands and feet" would be coded as ACTION SELF, DETAIL, respectively.

D. NOT CODED - chunks involving responses made to direct questions posed by a therapist during a therapy session, such as answers to questions about SUDS ratings or answers to requests to stay in the present tense during an exposure session.
CODING SYMBOLS

ORGANIZATIONAL THOUGHTS (OT)
DISORGANIZED THOUGHTS (DT)
DESPERATE THOUGHTS (DST)

POSITIVE FEELINGS (PF)
NEGATIVE FEELINGS (NF)
ADAPTIVE ANGRY FEELINGS (AAF)

ACTION-SELF (AS)
ACTION-PERPETRATOR-THREAT (APT)
ACTION-PERPETRATOR-NON-THREAT (APN)
ACTION-JOINT (AJ)
ACTION-OTHER (AO)

SENSATIONS (S)

DETAILS (D)

DIALOGUE-PERPETRATOR-THREAT (DPT)
DIALOGUE-PERPETRATOR-NON-THREAT (DPNT)
DIALOGUE-SELF-PERPETRATOR (DSP)
DIALOGUE-SELF-OTHER (DSO)
DIALOGUE-OTHER (DO)

UNFINISHED THOUGHTS (UT)
SPEECH FILLER (SF)
REPETITION (R)
NOT CODED underlined
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Appendix J – Additional Rules for Chunking and Coding Speech Fillers

A. STAND-ALONE SPEECH FILLERS – if the speech filler stand alone, chunk it separately and code it according to the standard rules.

Example: It wasn’t,/ UT
         he didn’t,/ UT
         you know. SF

B. INTERRUPTIONS – if a speech filler interrupts a train of thought, chunk it separately and code it as a SPEECH FILLER.

Example: It’s not like he forced me,/ OT
         I mean,/ SF
         I was crying. AS

C. COLLOQUIALISMS – if the speech filler does not meet rules A or B above, or if it is clearly used as a colloquial figure of speech, do not chunk or code it separately.

Example: We were both, pretty, like gone/ D
         but I didn’t, you know, try to stop anything. D

If “like” in used in place of “said,” do not chunk or code it separately.

Example: I’m like, what are you doing?
Appendix K – Life Story Coherence Coding

The transcript is then to be coded a second time using the following criteria, which are to be applied to the narrative as a whole. These criteria are to be scored using a 7-point Likert-type scale in which 1 = Very Low, 2 = Low, 3 = Somewhat Low, 4 = Neutral, 5 = Somewhat High, 6 = High, and 7 = Very High.

1. ORIENTATION
   a) Does the narrator introduce the central characters?
   b) Does the narrator locate the story at a particular moment in time?
   c) Does the narrator describe the relevant past events which led up to this particular event?

2. STRUCTURE
   Does the narration include the following:
   a) An initiating event?
   b) An internal response to this event?
   c) An attempt to meet a goal which is precipitated by this event?
   d) A consequence which results from this event?
   e) Do these elements follow one another in a logical, causal manner? That is, does the initiating event precede the internal response, which in turn precedes the attempt to meet a goal, which in turn precedes the consequence?

3. AFFECT
   Does the narrator employ explicit statements of feeling in order to create an affective tone or signify emotional meaning?

4. INTEGRATION
   Does the narrator express the meaning of her experiences within the context of her larger life story?
**STORY COHERENCE CODING SCORING:**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>very low</td>
<td>low</td>
<td>somewhat low</td>
<td>neutral</td>
<td>somewhat high</td>
<td>high</td>
<td>very high</td>
</tr>
</tbody>
</table>

**ORIENTATION** (circle one)

a) 1 2 3 4 5 6 7

b) 1 2 3 4 5 6 7

c) 1 2 3 4 5 6 7

\[
a) \frac{\text{___} + b) \text{___} + c) \text{___}}{3} = \text{TOTAL ORIENTATION _____}
\]

**STRUCTURE**

a) 1 2 3 4 5 6 7

b) 1 2 3 4 5 6 7

\[
\text{a) ___ + b) ___ + c) ___ + d) ___ + e) ___} \div 5 = \text{TOTAL STRUCTURE _____}
\]

d) 1 2 3 4 5 6 7

e) 1 2 3 4 5 6 7

**AFFECT**

1 2 3 4 5 6 7

**TOTAL AFFECT _____**

**INTEGRATION** 1 2 3 4 5 6 7

**TOTAL INTEGRATION _____**

**TOTAL COHERENCE:**
Appendix L – Causal-Conditional Coding

The transcript is to be coded a third time using the following rules:

1. CAUSAL WORDS AND PHRASES
   Chunks that include words or phrases that indicate the speaker’s attribution of causality, including “because,” “so (that),” “(in order) to,” etc. would be coded as CAUSAL WORDS AND PHRASES.
   For example,
   “He wants me to move away from the door/ so (that) I can’t run away”
   or
   “I tried to get to the kitchen/ (in order) to get a knife.”

2. CONDITIONAL WORDS AND PHRASES
   Chunks that include words or phrases that indicate the speaker’s expression of conditionality, including “if,” “but,” etc. would be coded as CONDITIONAL WORDS AND PHRASES.
   For example,
   “If he comes closer,/ I’ll scream”
   or
   “I tried to run,/ but he was between me and the door.”

Although in most cases these phrases would be scored as separate chunks as indicated by the /, for purposes of causal-conditional coding, each compound phrase is only to be considered as one chunk.

CAUSAL-CONDITIONAL CODING SCORING

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<th>THOUGHTS</th>
<th>CODE</th>
<th>#</th>
<th>%</th>
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<tbody>
<tr>
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<td>(CA)</td>
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<td></td>
</tr>
<tr>
<td>CONDITIONAL WORDS AND PHRASES</td>
<td>(CO)</td>
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