DIFFERENCES BETWEEN ACKNOWLEDGED AND UNACKNOWLEDGED RAPE: OCCURRENCE OF PTSD

THESIS

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements

For the degree of

MASTER OF SCIENCE

By

Lynda B. Ovaert, B.A.
Denton, Texas
August, 1994
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This study examined the relation between level of rape acknowledgement and levels of PTSD symptoms reported in female college students. Subjects were administered the Sexual Experiences Survey (SES), the PTSD Interview, and a demographics questionnaire. Subjects were then grouped into the following categories based on their responses to the SES: reported rape victims, acknowledged rape victims, unacknowledged rape victims, and a control group of non-rape subjects. Small sample analyses did not reveal the expected linear relation between the two variables. Only the acknowledged group showed greater PTSD symptoms. The unacknowledged and control groups did not significantly differ on overall PTSD symptom severity, or on any cluster of PTSD symptoms. Naturalistic selection factors are discussed that could have affected the outcome of the study.
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INTRODUCTION

The psychological aftermath of rape presents a significant mental health problem for many American women. According to United States Federal Bureau of Investigation (FBI), 92,490 women were raped in 1988 (U.S. Bureau of the Census, 1991). This statistic only includes women who reported the incident to police. The National Crime Survey (NCS), however, estimated that the total number of rapes occurring in 1988 was 127,000 (U.S. Bureau of the Census, 1991). In the NCS victimization studies, residents of a standard sampling area are asked to report on members of their household who have been victims of crimes within the past six months. The rates reported by these residents are then compared with official crime statistics to estimate the amount of unreported crime. Although the NCS statistics are closer to the actual number of rapes committed, they are based on several assumptions that are likely faulty. Quite often, women do not disclose to anyone that they have been raped, therefore another family member is not likely to know about it nor would the rape victim be likely to report it during an interview in which other family members were present. In addition, the NCS interviewer does not mention rape unless a positive response is given to a question about being attacked.
Therefore, it seems correct to assume that incidents of rape are definitely underreported.

**Underreporting of Rape**

Koss (1983) suggested that as few as 10% of rapes may be reported to authorities. Recent studies suggested that the lifetime prevalence of sexual assault against women ranges from 13.5% and 44% (Kilpatrick, Best, Veronen, Amick, Villeponteaux, & Ruff, 1985; Koss, Gidycz, & Wisniewski, 1987; Russell, 1982). In a more recent survey using a national sample of college students that included 3187 women, Koss et al. (1987) reported that 53.7% of women respondents had experienced some form of sexual victimization. The percentage of respondents who disclosed that rape or attempted rape had occurred was 27.5%. One of the problems with these discrepant prevalence rates is the varying definitions used for sexual assault or victimization, including rape.

One large group that is often not considered in official statistics is women who have been subjected to rape by someone they know (Koss, 1988). Again, terminology and definitions can be misleading, but numerous studies indicated that this type of rape is a serious problem, especially on college campuses (Koss, 1983, 1985; Miller & Marshall, 1987; Muehlenhard & Linton, 1987; Yegidis, 1986). Although acquaintance or date rape is often overlooked, Kilpatrick (1988) suggested that women who have experienced
date rape also face adjustment difficulties. Roth, Wayland, and Woolsey (1990) compared date rape victims and child abuse victims. They observed that date rape victims were as psychologically distressed as victims of chronic childhood assault. In an extensive study of wife rape, Russell (1982) observed that of the marriages in which wife rape occurred, 34% involved "extreme" trauma, 30% involved "considerable" trauma, 19% involved "some" trauma, 7% involved "little" trauma, and 1% involved "no" trauma. For the remaining 9 percent, the degree of trauma was not ascertainable.

**Symptom Responses Associated With Rape**

Koss (1990) suggested that the physical, cognitive, and behavioral responses of many rape victims are consistent with the DSM-III-R criteria for post-traumatic stress disorder (PTSD). According to the DSM-III-R, the PTSD diagnosis cannot be made unless the victim experiences a traumatic event and meets the following criteria: a) persistently reexperiences the event (hereafter referred to as Group A symptoms), b) persistently avoids stimuli associated with the event or experiences numbing of responsiveness (referred to as Group B symptoms), and c) experiences increased arousal (referred to as Group C symptoms). Appendix A provides a more detailed description of these symptom categories. In addition, the individual must experience these symptoms for at least one month to qualify for the PTSD diagnosis.
In an in-depth study following a retrospective random survey of crime victims (Kilpatrick et al., 1987), it was found that almost 60% of rape victims met the criteria for having had PTSD at some time in their lives. More recently, Foa (1990) reported a study in which rape victims were assessed weekly, immediately after the crime. Approximately 95% of the women met the criteria (excluding the one-month duration) for PTSD at 1 week postcrime; at 3 months postcrime, 50% of the women still met criteria for PTSD. Burge (1988) reported that 86% of the rape victims studied were at least moderately affected by PTSD symptoms. In fact, Foa, Olasov and Steketee (1987) suggested that female sexual assault and abuse victims make up the largest group suffering from PTSD. However, despite these compelling statistics, some women who have been sexually assaulted have no major symptomatic reactions or recover quickly without any type of formal treatment (Resick & Schnicke, 1990).

Theoretical Explanations for Adjustment

Numerous theories have been formulated to explain the variability in victims' adjustment to rape. One of the earliest theories proposed to explain this variability is crisis theory.

Crisis theory. Burgess and Holmstrom (1974) first coined the term "rape trauma syndrome" and linked this syndrome to crisis theory. Crisis theory models propose that an emotional crisis disrupts an individual's homeostatic
balance between affective and cognitive experience. Most crisis theory models suggest stages of reaction and recovery. Burgess and Holmstrom's two-stage model proposed that the victim experiences a life crisis (i.e., the rape), which causes an immediate and intensely negative reaction. Following this first phase, which lasts from four to six weeks, the victim should begin resolving the crisis either adaptively or maladaptively. Burgess and Baldwin (1981) refined the two-stage model into a four-stage model and labeled rape as a Class 3 crisis (a crisis resulting from traumatic stress). Although crisis theory explains some elements of the victim's experience, there are problems with this theory. Resick (1990) summarized the problems with crisis theory: (a) it does not explain why victims develop certain symptoms; (b) it does not explain or predict the victims who will or will not recover quickly; (c) the time schedule suggested for recovery has been disconfirmed; and (d) it does not account for long-term victim symptomatology.

Learning theories. Veronen and Kilpatrick (1980) suggested that classical conditioning explains the victim's fear and anxiety. Holmes and St. Lawrence (1983) proposed a two-factor learning theory to explain not only the victims' acquisition and generalization of fear, but also post-rape avoidance behaviors. They suggested that classical conditioning (including stimulus generalization and higher-order conditioning) explained the fear and anxiety
responses. However, operant conditioning must be used to explain the avoidance behaviors. In effect, the avoidance behaviors are acquired because they reduce the conditioned anxiety. The two-factor theory, while it may explain fear reactions, depression, avoidance behaviors, and sexual dysfunction, does not adequately explain the intrusive symptoms of PTSD (Resick, 1990). Ellis (1983) attempted to correct this oversight by suggesting that crisis theory explains the short-term and intermediate effects of rape, and that classical conditioning explains the long-term effects (i.e., the continued fearfulness and anhedonia regarding previously enjoyed activities. However, Ellis' suggestion still skirts the issue of the long-term intrusive symptoms.

**Attribution theories.** Attribution theory has been proposed to explain victim reactions to rape. Wyatt, Notgrass and Newcomb (1990) suggested that, among other factors, self-blame was negatively related to a victim's post-rape adjustment. Janoff-Bulman (1979) suggested that internal attributions can be divided into behavioral self-blame (i.e., I did a bad thing) and characterological self-blame (i.e., I'm a bad person). Janoff-Bulman hypothesized that behavioral self blame was not negatively related to recovery, but that characterological self-blame was. Hill and Zautra (1989) conducted a study that supported Janoff-Bulman's theory. Katz and Burt (1988) found that high
degrees of self-blame indicate distress rather than adaptive recovery. Meyer and Taylor (1986) found that both behavioral and characterological self-blame were negatively related to recovery, although societal blame (i.e., society is to blame) was not. Lenox and Gannon (1983) further suggested that attribution theory "suggests an apparent 'trap' for rape victims: external attributions may result in feelings of helplessness and depression while internal attributions may result in feelings of guilt" (p. 43). Thus, while attribution theory might offer suggestions about negative adjustment, it does not account for adaptive recovery.

Information processing theories. Information processing models involving the selective processing of threat-related information caused by a fear structure developed following the rape have been proposed to account for the differences between PTSD and other anxiety-based disorders. Foa, Steketee and Rothbaum (1989) proposed an emotional processing model that extends Lang's (1977) model of a fear structure network. According to Lang (1977), fear information is stored in fear "networks" that facilitate the individual's ability to enact escape and avoidance behaviors in cognitive, affective, motoric and psychophysiological ways. Foa et al. (1989) proposed that what distinguishes PTSD from other anxiety disorders is the nature of the fear network. They suggested that the nature and intensity of the traumatic event (e.g., rape) violated formerly held concepts
of safety, which increased the size, strength, and accessibility of the fear network. Litz and Keane (1989) reviewed these and other information processing models and suggested hypotheses for future empirical work based on storage, accessibility, and retrieval of fear-related information; activation and avoidance mechanisms; and attentional and arousal biases. While information processing models may describe differences, including diagnostic and treatment implications, between PTSD and other anxiety disorders, they do not offer predictive value (i.e., predict which victims will develop PTSD).

**Constructivist theories.** McCann, Sakheim and Abramson (1988) proposed a schema-based model to explain psychological responses to victimization. This model is based on the complex interactions between an individual's life experiences, schemas, and psychological adaptation. According to this model, the five major areas within which an individual develops both positive and negative schemas about self and others are: safety, trust, power, esteem, and intimacy. This schema-based model provides a theoretical framework for understanding the variety of reactions exhibited by rape victims. Although this model may be clinically useful, it has not been sufficiently expanded or defined to be amenable to empirical testing. One of the more useful hypotheses suggested by McCann et al., in terms of the present study, is the possibility of a denial-based
PTSD. Although they did not specifically outline this denial-based PTSD, they suggested that many rape victims may not exhibit the reexperiencing symptoms, but they should still qualify for the PTSD diagnosis based on the denial symptoms. These denial symptoms include avoidance, denial and numbing responses, and increased arousal (categorized in terms of the present study as Group B and Group C symptoms).

Sewell and Cromwell (1990) proposed a model of PTSD based on Kelly's (1955) personal construct theory. Personal construct theory suggests that an individual strives to interpret and predict the world using constructs and construct systems. A construct is the meaning an individual assigns to something, including how it is like or unlike something else. According to this model, the PTSD symptoms can be explained in terms of a dissociated construct (or construct subsystem) that develops in response to trauma. The victim is unable to integrate the trauma-related construct with other existing constructs; therefore, it is unstable and hypothesized to "potentiate more global mood disruption." The distressing symptoms that occur as a result of the trauma (e.g., rape) will continue until the construct has been assimilated into the individual's existing construct system.

One might then infer that if an individual has already developed constructs within which a traumatic experience can be assimilated (and integrated those constructs with the
existing construct system), the individual will likely experience fewer adjustment problems. If so, this theory can be used to explain why some rape victims experience adjustment problems and other victims do not. Not only does this theory more adequately integrate the experienced trauma with the victim's existing psychological framework, it can be empirically tested using the Construct Repertory Test (Kelly, 1955).

Situational Variables Associated With Adjustment

If some women develop adjustment problems, including PTSD, and some women do not, one would expect to find predictor variables associated with recovery from the traumatic event. Wyatt, Notgrass, and Newcomb (1990) replicated the findings from other studies (Cohen & Roth, 1987; Kilpatrick, et al., 1989; McCall, Meyer, & Fischman, 1979) that suggested that the level of force used (i.e., use of weapon and amount of violence) was positively related to the victim's distress. Other variables suggested that might predict poor adjustment include high involvement of police (Cohen & Roth, 1987; Gidycz & Koss, 1990; Wyatt, Notgrass, & Newcomb, 1990), and the rapist being a stranger (Ellis, Atkeson, & Calhoun, 1982). In a review of related literature, Steketee and Foa (1987) noted equivocal finding for variables such as reporting to police, age, race, economic status, prior stressful life events, and aspects of the rape situation. However, they did report that prior
psychiatric history was negatively related to recovery, and social support was positively related to recovery. Sales, Baum, and Shore (1984) suggested that the victims' personal characteristics, rather than assault or demographic characteristics, may be more influential in determining initial and long-term reactions to rape.

Acknowledgement as a Factor Affecting Adjustment

One possible way to explain the equivocal findings about situational variables might be to examine whether or not the victim acknowledges the experience as rape. Reporting to the police suggests not only that the victim acknowledges the rape, but that the rape may have been experienced as more traumatic than it was for victims who did not report the rape. Although their study did not specifically include reporting to police as a coping response, Burt and Katz (1988) found that active coping behavior was associated with higher symptom levels in victims of rape. Wyatt et al. (1990) suggested that the involvement of police had a negative impact on the victim's adjustment. In a study of group sexual assault victims, Gidycz and Ross (1990) found that group sexual assault victims were more likely to report the assault to the police than were individual assault victims. These studies suggested that victims who report the rape are likely experiencing more severe symptomatology than victims who do not report the rape.
If reporting the rape signifies acknowledgement, then acknowledgement is also likely related to symptom severity. Within a constructivist framework, one might possibly view acknowledgement as being correlated with a dissociated construct or construct subsystem, as described by Sewell and Cromwell (1990). In effect, the fact that the experience is acknowledged as "rape" suggests that it was an experience that, at least at the time it happened, lay outside the individual's usual construct system. The dissonance created by this unassimilated experience is postulated to result in severe PTSD symptoms. Regarding PTSD-related symptoms, the most severe (i.e., the most disruptive) symptoms would likely be the reexperiencing symptoms. Therefore, one would expect to find more reexperiencing symptoms (Group A symptoms) in victims who report the rape.

Speculating that reporting represents a higher level of acknowledgement, then these hypotheses can be taken a step further. In effect, victims who acknowledge the incident as rape but do not report the rape would likely experience less of the disruptive symptoms (Group A symptoms) than victims who report the rape. Assuming that acknowledgement is related to symptom severity, unacknowledgement would represent less dissonance. Thus, it is postulated that victims acknowledging but not reporting the rape will likely experience more Group A symptoms than victims who do not acknowledge the rape.
Research suggests that level of acquaintance with assailant is also related to level of acknowledgement and level of symptomatology. Koss (1985) suggested an inverse relationship between level of acknowledgement and level of acquaintance with assailant. Koss et al. (1988) reported that "victims of stranger and acquaintance rape did not differ in their current levels of psychological symptoms, which is consistent with the bulk of the literature" (p. 21). However, the classification of acquaintance rape was not further categorized into acknowledged and unacknowledged and then examined in terms of differences in symptom severity. Additionally, the symptoms assessed (depression, anxiety, relationship satisfaction, and sexual satisfaction) did not include the gamut of PTSD-related symptoms.

Koss et al. (1988) also reported that rapes by acquaintances (as compared to rapes by a stranger), were more likely to involve a single offender and multiple episodes. Findings from a study by Roth, Wayland, and Woolsey (1990) suggested that repeated victimization, including women romantically involved with the assailant, may lead to a greater need for denial. Thus, one might postulate that, at least in a subgroup of unacknowledged rape victims, a denial or avoidance component coexists with distressing symptoms. It is hypothesized that this group of victims (no acknowledgement and acquaintance with rapist) would more likely meet McCann's (1988) criteria for denial-
based PTSD (i.e., Group B and Group C symptoms) than to qualify for the DSM-III-R diagnosis of PTSD.

Again, viewing this hypothesis from a constructivist orientation, it is probable that a) the unacknowledging victim is acquainted with the assailant; b) the victim has likely been repeatedly victimized by the assailant; and c) out of necessity, has somehow accommodated the victimization into some part of the existing construct system (although that part might be dissociated). Although accommodation does not necessarily imply resolution, the likelihood of the rape causing extreme distress (i.e., Group A symptoms) is decreased, while the likelihood of less extreme distress (i.e., Group B and Group C symptoms) is not directly affected by this assimilation.

Summary

Research findings about situational and demographic variables are equivocal, primarily because they have not been examined within the context of the victim's total life experiences and psychological framework. Other theoretical explanations either cannot adequately explain all of the PTSD symptoms experienced or they do not have sufficient predictive value. Constructivist theories offer a more global approach to the rape victim's experience, and as such, provide the theoretical foundation for the present study.
The Present Study

To enhance the readability of the present study, the different subjects will be discussed hereafter as belonging to one of the following groups:

Reported Rape. Those women who report the rape to authorities.

Acknowledged Rape. Those women who acknowledge the incident as rape but do not report it to authorities. This group includes women who acknowledge to themselves that rape occurred, but who may or may not report the rape to therapists, counselors, support groups, physicians, or friends.

Unacknowledged Rape. Those women who undergo a rape experience in which force or the threat of force occurred, but do not acknowledge to themselves or others that rape occurred. This group includes women whose assailants were husbands, other relatives, boyfriends, lovers, or acquaintances.

Control Group. Those women who have not experienced any type of rape.

Throughout this study, unless specified otherwise, rape is defined as an unwanted, completed sexual act. Although attempted rape is a legitimate concern, and can cause distress, it is not included in any of the above categories.
Other types of sexual assault and victimization (e.g., verbal coercion, forced prostitution) are beyond the scope of the present study and are thus excluded.

The DSM-III-R criteria for PTSD will be referred to according to the following categories:

Group A symptoms. Reexperiencing symptoms.
Group B symptoms. Avoidant and numbing symptoms.
Group C symptoms. Arousal symptoms.

Refer to Appendix A for more detailed descriptions of the individual symptoms associated with each category.

Rationale. This study differs from other studies in that the experience of rape and level of PTSD symptoms are both viewed on a continuum. Other studies often focus on a specific type(s) of rape (e.g., violent reported rape or unacknowledged rape) and the levels of distress associated with these types. Using a different approach, this study attempts to explore a continuum of rape experiences based on the victim's level of acknowledgement and the associated distress level (i.e., level of PTSD symptoms).

Therefore, one of the purposes for conducting this study is to investigate the extent to which victims of unacknowledged rape experience distress, including symptoms that fall within a PTSD continuum (i.e., some of the Group B and Group C symptoms). If women present themselves for therapy and show these symptoms, it might alert the therapist to explore the possibility of a rape situation.
This study will also attempt to identify the victims exhibiting the denial-based PTSD (i.e., those who do not acknowledge the rape) described by McCann et al. (1988). If this population exists, it would suggest that PTSD encompasses a larger population than was previously thought. Finally, this study attempted to examine the differences, if any, between victims who report rape and those who do not. If, as expected, reporting the rape is related to more severe adjustment problems, clinical and societal changes might be warranted.

**Purpose of Study.** The purpose of this study was to explore the occurrence of PTSD or PTSD-related symptoms in women who report a rape, in women who acknowledge a rape occurred but do not report it, and in women who experience rape but do not acknowledge or report it. In the present study, the following hypotheses were suggested:

**Hypothesis 1.** Rape victims who report the rape will experience more Group A symptoms than all other rape victims.

**Hypothesis 2.** Rape victims who acknowledge but do not report the rape will experience more Group A symptoms than victims who do not acknowledge the rape.

**Hypothesis 3.** Victims who acknowledge but do not report the rape, and victims who do not acknowledge or report a rape in which force or the threat of force was used will experience relatively similar amounts of Group B and Group C
symptoms, but will experience more of these symptoms than control subjects.

Hypothesis 4. The level of acknowledgement (as categorized in terms of the present study) will be related to the overall severity level of PTSD-related symptoms, with reported rape victims having the greatest amount of overall PTSD-related symptoms and control subjects having the least amount of overall PTSD-related symptoms.

METHOD

Subjects

Subjects were initially recruited from undergraduate female students at the University of North Texas (UNT) by posting sign-up sheets at the UNT Psychology Department. To attempt to obtain a larger sample of rape victims, volunteers were recruited by administering a screening measure to selected classes, and by placing a newspaper article in The Dallas Morning News. The study was described to undergraduate participants as an exploration of female sexual experiences to minimize selection bias. The newspaper article requested women who were interested in participating in research about rape. Subjects participating in the study were given extra credit points for their participation. The total number of women screened (using all three methods), was 442. Of those screened, 170 women elected to participate in the interview process. Table 1 presents the total number of screened and participating subjects.
Table 1.

**Frequency and Percentage Information on Subjects**

<table>
<thead>
<tr>
<th>Categories of Screened Subjects</th>
<th>% of Total Screened</th>
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<tr>
<td>Acknowledged Rape:</td>
<td>12.2</td>
</tr>
<tr>
<td>Unacknowledged Rape:</td>
<td>5.3</td>
</tr>
<tr>
<td>Controls:</td>
<td>82.5</td>
</tr>
<tr>
<td>Total Screened:</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Screened Subjects Data**

| Provided No Name:              | 59                   |
| Did Not Show for Interview:    | 21                   |
| Not Interested in Interview:   | 43                   |
| Not Asked to Participate:      | 256                  |
| Did Participate:               | 170                  |
| Total Screened                 | 549                  |

**Subjects Participating**

| Acknowledged:                  | 31**                 |
| Unacknowledged:                | 14                   |
| Controls:                      | 125                  |
| Total Participating:           | 170                  |

* Includes Subjects Changing From Unacknowledged to Acknowledged During Interview: 6

**Includes Subjects Reporting to Police:**
- 7 reported 1st rape
- 1 reported 2nd rape
- 2 reported 3rd rape
Instruments

All subjects were administered three instruments, the Sexual Experiences Survey (SES; Koss & Oros, 1982), the PTSD Interview (PTSD-I; Watson, Juba, Manifold, & Anderson, 1991), and a demographics questionnaire. The SES developed by Koss and Oros (1982) was designed to collect information about rape experiences. This instrument is specifically geared towards detecting rape incidents that might not have been reported or even acknowledged as such by the victim. Reported internal consistency (Cronbach alpha) of the SES items is .74, and the reported test-retest reliability coefficient is .93 (Koss & Gidcyz, 1985). These reliability measures were assessed using several samples of college students. Validity of the SES was assessed using a sample of 242 college women. The reported Pearson correlation between a woman’s level of victimization based on self-report and based on responses related to an interviewer was .73 (p < .001). Based on interview responses, a change in the classification of level of victimization was reported for 23.5% of the respondents. Of these changes in classification, 16% moved from a higher (e.g., rape) to a lower category (e.g., coercive sex), and 7.5% moved to a higher category. Only 2 of the 62 women whose self-reports suggested that they were rape victims “were noted by the interviewer to change their responses or to give responses of questionable veracity” (p. 423).
The PTSD-I was developed to closely correspond to DSM-III-R criteria, yield both present/absent scores and a severity output for each PTSD symptom and the PTSD syndrome, and be reliable and valid (Watson, et al. 1991). In addition, the PTSD Interview can be administered by trained subprofessionals (e.g., undergraduate research assistants). Reported internal consistency for the scale is .92 and reported test-retest reliabilities are .95 for the total score and .87 for diagnostic agreement. To evaluate the validity of the PTSD Interview, it was compared to a modified version of the post-traumatic stress disorder section of the National Institute for Mental Health (NIMH) Diagnostic Interview Schedule (DIS; Version III-A). The point-biserial correlation for a stress disorder diagnosis under the two measures was .94. When compared to the DIS, the PTSD-I's sensitivity (proportion of DIS-defined PTSDs identified by the PTSD-I) was .89 and its specificity (proportion of DIS-defined non-PTSDs identified as non-PTSDs by the PTSD-I) was .94.

The demographic questionnaire developed by the present author was designed to elicit information that was not included in either of the other two measures (See Appendix B). Information about the rape incident was also included to gather situational information about the rape. Data such as this situational information collected from the questionnaire might also be useful in future research.
Procedures

During the classroom announcements and in the advertisements posted on campus, potential subjects were given phone numbers to call to set up an appointment. The present author and two other graduate students conducting rape research set up the interviews, which were conducted at the Psychology Clinic on the University of North Texas campus. Initially, all female subjects who could arrange an interview time and who were willing to sign an informed consent form (Appendix C) were accepted as subjects.

After collecting data for five months, sufficient data had been gathered for control subjects. In an attempt to locate additional rape and PTSD subjects, a screening measure was developed using the SES questionnaire with two questions added about traumatic experiences (See Appendix D). This screening measure was then administered to female students in undergraduate psychology classes. Only subjects that could be categorized by the screen responses as rape victims, unacknowledged rape victims, and/or as having suffered a traumatic experience were then contacted about an interview.

The demographic questionnaire and the SES were completed by all subjects who participated in the interview portion of the study. After these self-report measures were completed, the subject was then administered the PTSD-I by either the present author or one of the two graduate
students conducting similar research. If the subject was raped (based on SES responses), but didn’t feel the rape was the most traumatic event, the PTSD-I was administered more than once. The subject was asked to use the event reported as most traumatic for the first administration. The subject was then asked to respond to the PTSD-I using the rape experience.

The subjects completed all measures during one session, which lasted approximately one to one and one-half hours. After the PTSD-I was completed, the subject was offered a debriefing interview to discuss any aspects of the interview that were distressing. All subjects retained a copy of the consent form, which provided referrals for counseling if desired.

RESULTS

After data were collected, the subjects were divided into four groups (reported rape, acknowledged rape, unacknowledged rape, or control group) based on their responses to the SES and the demographics questionnaire. Appendix E presents the operational definitions used for group categorization. The reported level of PTSD symptoms was then determined for each subject based on their responses to the PTSD-I.

Because only seven subjects who participated reported the first rape, these subjects were not separated out from the acknowledged group. Therefore, analyses for the first
hypothesis were not conducted. Means for overall severity level on the PTSD-I were 77.12, 92.0, and 87.0 respectively for subjects (n = 8) who reported the first rape, the subject who reported a second rape, and the subject who reported a third rape. Table 2 presents the group means and standard deviations for all four subject categories.

A total of 14 subjects were categorized as unacknowledged rape victims. These 14 subjects were matched with acknowledged rape and control subjects according to age, income, race, and manner of recruitment. As expected, no unacknowledged subjects were recruited from the newspaper article, thus only control and acknowledged subjects recruited on campus were used in these analyses.

Table 2.

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Mean</th>
<th>SD</th>
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<tr>
<td>Reporting (1st rape)</td>
<td>8</td>
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<td>12.67</td>
</tr>
<tr>
<td>Reporting (2nd rape)</td>
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<td>92.00</td>
<td>----</td>
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<tr>
<td>Reporting (3rd rape)</td>
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<td>87.00</td>
<td>----</td>
</tr>
<tr>
<td>Acknowledged</td>
<td>14</td>
<td>67.71</td>
<td>19.04</td>
</tr>
<tr>
<td>Unacknowledged</td>
<td>14</td>
<td>40.07</td>
<td>11.41</td>
</tr>
<tr>
<td>Control</td>
<td>14</td>
<td>42.14</td>
<td>18.98</td>
</tr>
</tbody>
</table>
Results of the oneway ANOVA for the second hypothesis (Group A symptoms will be greater for acknowledged than unacknowledged rape) were significant ($F = 3.49$, df= 2,39, $p = .04$). On the Group A symptoms, means for the three groups were 14.36, 10.21 and 10.71 respectively for acknowledged rape, unacknowledged rape, and control subjects.

Hypothesis 3 postulated that acknowledged rape and unacknowledged rape subjects experienced approximately the same level of Group B and Group C symptoms, but more of both symptoms than controls. A MANOVA comparing Group B and Group C symptoms by group yielded a group effect for Group B symptoms ($F = 12.02$, df = 2,39, $p < .00$). For Group C symptoms, results were also significant ($F = 13.03$, df = 2,39, $p < .00$). Group means for Group B symptoms were 29.06, 16.43, and 17.57 respectively for acknowledged rape, unacknowledged rape, and control subjects. For Group C symptoms, group means were 24.79, 12.93, and 12.71.

Results of analyses for Hypothesis 4 did not reveal a linear relationship between level of acknowledgement and overall severity level of PTSD symptoms. A oneway ANOVA comparing overall PTSD symptoms by group yielded a significant main effect ($F = 11.67$, df = 2,39, $p = .0001$). Duncan multiple ranges showed that acknowledged rape subjects were significantly different from both unacknowledged rape and control subjects ($p = .05$). However, no difference was found between unacknowledged rape and
control subjects on overall severity level. Group means were 67.71 (acknowledged), 40.07 (unacknowledged), and 42.14 (control).

A follow-up analysis was performed to determine the relation between multiple episodes of rape and overall severity level of PTSD symptoms. Results of the one-way ANOVA suggested that women raped multiple times do experience greater levels of overall PTSD symptoms ($F = 28.37$, df $= 1$, 138, $p < .0001$). The group mean for subjects experiencing multiple episodes was 88.25 compared to a group mean of 51.23 for subjects who did not experience multiple rapes.

**DISCUSSION**

The present study attempted to examine how acknowledgement or unacknowledgement of rape in university students would effect their PTSD symptom level. One difficulty in conducting the present study was in locating subjects who had reported the rape. This difficulty was not unexpected, given that previous research suggested that as few as 10% of rapes are reported to authorities (Koss, 1983). In the present study, a total of 10 women out of 31 reported the rape to the authorities, which is more encouraging than Koss's finding. Although the percentage of rapes reported in the present study (32%) is higher than the percentage suggested by Ross, the small sample obtained prevented statistical analysis of hypothesis 1. Also for this reason, the reported rape group was not included in the
analyses for hypothesis 4. However, examination of group means suggested the reported rape group had higher levels of overall PTSD symptoms than the other three groups.

An unforeseen difficulty was in finding unacknowledged rape subjects willing to participate in the study. Of the 28 subjects categorized as unacknowledged based on screening responses, two gave wrong phone numbers, five did not provide a name on the screening measure, five were disinterested in further participation, and two simply did not show up for the interview. Additionally, six subjects were moved to the acknowledged category based on their responses during the interview. Thus, it appears that one possible reason for the difficulty in obtaining unacknowledged subjects is their reluctance to undergo questioning about their sexual experiences.

It could also be speculated that the unacknowledged group is underrepresented at this university. The educational programs about rape that are periodically conducted at UNT might explain the higher rate of reporting found in the present study. These educational programs could also encourage unacknowledged rape victims to label their experience as rape. If correct, this explanation would suggest a smaller number of unacknowledged rapes than might otherwise be found in a university setting.

Because of the small number of unacknowledged subjects who did participate (n = 14), any discussion of results is
highly speculative. Only one of the hypotheses was supported by the data. The level of intrusive PTSD symptoms (Group A) appeared to be higher in the acknowledged group than in the other two groups. The acknowledged group also had higher levels of Group B symptoms, Group C symptoms, and overall symptom severity than the unacknowledged and control groups. The latter two groups did not significantly differ on any of the variables examined.

Failure to find support for hypotheses 3 and 4 could be related to the variable suggested by Koss (1988) and Roth et al. (1990). In effect, women experiencing repeated episodes of rape by an acquaintance could constitute a subgroup of unacknowledged victims who "mislabel" or deny the rape to minimize distress. The unacknowledged rape sample obtained in the present study could thus be nonrepresentative and consist only of subjects who have effectively denied the event. The present study did not attempt to obtain any direct measure of denial in this group.

Secondly, the unacknowledged sample could be nonrepresentative and consist of subjects who did not experience repeated episodes of rape. Methodological constraints did not allow information about multiple episodes within the unacknowledged group to be obtained.

A third possibility is that the unacknowledged sample was comprised of subjects who did not experience distress. This latter possibility again suggests a skewed sample given
that previous research has reported levels of distress in acquaintance rape equal to levels found in "stranger" rape (Koss et al., 1988). It is unlikely that the obtained sample did not include subjects who were raped by acquaintances, however. This unlikely probability leads to the speculation that the more salient factor could be repeated episodes. Again, methodological constraints did not allow this supposition to be explored. Information about relationship to rapist and multiple episodes was elicited on the demographics questionnaire only from acknowledged subjects.

Perhaps one of the more productive ways to examine the present study is in terms of the difficulty obtaining participation from the unacknowledged group. Koss (1985, 1987) used the term "hidden victim" to describe those women who experienced but did not report a rape. The term might conceivably be more applicable to those women who do not acknowledge a rape experience as such. This appeared to be the case in the present study. Results also failed to illuminate what type of population these unacknowledged victims represent. Anecdotal information at least suggested a subgroup that declined to label the experience as rape in order to minimize distress. One subject had to be excluded because of her inability to complete the interview after being questioned about the discrepancy in her responses to the SES screening measure and the SES administered during the interview process. This subject responded "yes" to SES
Question 10 (rape using threat of force) on the screen, but changed this response to "no" and instead responded "yes" to SES Question 9 (attempted rape using threat of force). After being questioned about this discrepancy, the subject acknowledged that she had been raped, but was unwilling or unable to talk about the experience. Another reason for speculating that some women prefer to minimize or not label the experience was suggested by those subjects ($n=6$) who changed from unacknowledged to acknowledged during the interview process. These changes in acknowledgement followed interviewer questions about discrepancies in the two SES's or the question on the PTSD-I about their most traumatic experience. Follow-up research to determine if those subjects experienced distress after labeling the incident as rape would be useful. With additional unacknowledged subjects, it might be possible to separate out two subgroups: those who wish to minimize distress, and those who simply do not experience distress and therefore do not view the incident as rape.

Another factor that should be considered for future research is that data may have to be obtained anonymously to study this unacknowledged population. It appeared, at least in the present study, that anonymous self-report data was all that could be obtained from many of the screened subjects. A screening packet including self-report measures and a demographic questionnaire in addition to the SES would
have been helpful in the present study. The Impact of Events Scale (Horowitz, et al, 1979) could possibly be modified to elicit the impact of the most distressing sexual experience and the denial associated with that experience. A brief symptom report, such as the SCL-90 (Derogatis, 1983) could have been used to measure distress level. Finally, a demographics questionnaire that probes into situational characteristics (e.g. repeated vs. single episodes) of the unacknowledged rape experience should be developed. This questionnaire could use affirmative responses to the "rape" questions on the SES (i.e. questions 10, 11, and 12) as branching off points for those subjects who answer "no" to question 13 (i.e., "Have you been raped?").

Unfortunately, the present study could not determine whether or not this unacknowledged subpopulation of rape victims should receive clinical consideration. However, a population of unacknowledged rape victims does exist, at least in the university setting. Anecdotal information suggested that for at least a portion of this population, questions about the experience led to acknowledgement, and in some cases, distress. Finally, traditional methods for obtaining subjects from this population were not effective in eliciting unacknowledged victims. Subject anonymity would likely be a requirement for any further research with this population.
APPENDIX A

DSM-III-R DIAGNOSTIC CRITERIA
DSM-III-R PTSD Diagnostic Criteria

Group A Symptoms. The traumatic event is persistently reexperienced in at least one of the following ways:

1. Recurrent and intrusive distressing recollections of the event (in young children, repetitive play in which themes or aspects of the trauma are expressed)
2. Recurrent distressing dreams of the event
3. Sudden acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative [flashback] episodes, even those that occur upon awakening or when intoxicated)
4. Intense psychological distress at exposure to events that symbolize or resemble an aspect of the traumatic event, including anniversaries of the trauma.

Group B Symptoms. Persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:

1. Efforts to avoid thoughts or feelings associated with the trauma.
2. Efforts to avoid activities or situations that arouse recollections of the trauma
3. Inability to recall an important aspect of the trauma (psychogenic amnesia)
4. Markedly diminished interest in significant activities (in young children, loss or recently acquired developmental skills such as toilet training or language skills)
5. Feeling of detachment or estrangement from others
6. Restricted range of affect, e.g., unable to have loving feelings
7. Sense of a foreshortened future, e.g., does not expect to have a career, marriage, or children, or a long life.
Group C Symptoms. Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following:

1. Difficulty falling or staying asleep
2. Irritability or outbursts of anger
3. Difficulty concentrating
4. Hypervigilance
5. Exaggerated startle response
6. Physiologic reactivity upon exposure to events that symbolize or resemble an aspect of the traumatic event (e.g., a woman who was raped in an elevator breaks out in a sweat when entering any elevator).
Demographic Questionnaire

1. How old are you now?
2. What is your race?
3. What is your current (or most recent) occupation?
4. What was your average (approximate) personal income during the past 5 years?
5. What was your average (approximate) FAMILY income during the past 5 years?
6. What is your current marital status?
7. Have you ever been married?
8. How many dates do you typically have per week?
9. How many men do you typically date per week?
10. Have you ever been a victim of a crime before?
11. If so, when and what kind of crime?
12. Have you ever been treated for any emotional illness?
13. If so, what were the reasons for and approximate dates of those treatments?
14. Do you have any physical problems or complaints?
15. Have you ever been raped?

Answer the following questions only if you HAVE experienced a rape.
16. How old were you when the rape occurred?
17. How long ago (approximately) did it occur?
18. Did you report the rape to the police?
19. Did you tell anyone else about the rape?
20. What was your relationship to the rapist?
   ______ stranger
   ______ acquaintance
   ______ friend
   ______ date
   ______ lover
   ______ spouse
   ______ other (specify)

21. Did the rapist use a weapon?
22. On the following scale, circle the number that represents the degree to which you literally feared for your life during the rape experience:
   0  Not at all
   1  A little bit
   2  Some
   3  Moderately
   4  Quite
   5  Much
   6  Very Much
   7  Extremely
APPENDIX C

CONSENT FORM
Consent Form

I, ____________________________, agree to participate in a study of women who have been raped and who have not been raped. The purpose of the study is to evaluate the adjustment difficulties experienced by women who have been raped. My participation involves risk only to the extent that remembering and talking about my sexual experiences might be uncomfortable. It is hoped that participation in this study might provide information useful to helping women recover from rape. I further understand that participation, or declining to participate, will not in any way affect my eligibility for any services.

As a participant, I understand that my involvement in the study will involve answering several questionnaires. Some of these questions will be about sexual experiences, some questions will be about recent negative experiences. Other questions will be about my family and background. Participation should take approximately 2 hours. No follow-up interviews will be carried out without my further consent.

My identity as a participant in this project will be held strictly confidential by the investigators. Although a general report of the study’s findings may be published, no report, either written or oral, will contain information by which I might be personally identified.

I will be given a copy of this consent form. The investigator will answer any questions I have during participation. In the event questions arise after my initial participation, I may contact the following individual:
Kenneth W. Sewell, Ph.D.
Department of Psychology
University of North Texas
Denton, Texas 76203
(817) 565-2671

If I experience any stress or need to talk to someone about a troubling experience or sexual assault, I may contact the following centers:
1) University of North Texas Psychology Clinic
   Terrill Hall
   Denton, Texas 76203
   (817) 565-2735

2) University of North Texas Counseling and Testing Center
   Union Building, Room 321
   (817) 565-2735

3) Denton County Friends of the Family
   Crisis Line (817) 382-7273
   Metro (817) 219-2829

I understand that participation is voluntary and that I may decline to participate, or discontinue participation at
any time, without penalty or loss of any benefits to which I am otherwise entitled.

<table>
<thead>
<tr>
<th>(Date)</th>
<th>(Signature/Telephone of Participant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Date)</td>
<td>(Signature/Telephone of Participant)</td>
</tr>
</tbody>
</table>
APPENDIX D

SCREENING MEASURE QUESTIONS ADDED TO SES
Screening Measure Questions Added to SES.

14. Have you ever had an experience (non-sexual or sexual) that seemed like it was unusually distressing or frightening?

15. If "yes" to #14, was it something that bothered you a lot or that was difficult to cope with?
APPENDIX E

RESPONSES FOR GROUP CATEGORIZATION
Responses for Group Categorization

REPORTED RAPE GROUP

Responds "Yes" to any of the following questions:

#10 (SES)
#11 (SES)
#12 (SES)
#13 (SES)

AND Responds "Yes" to the following questions:

"Have you ever been raped?" (Demographic questionnaire)

"Did you report the rape to the police?" (Demographic questionnaire)

ACKNOWLEDGED RAPE GROUP

Responds "Yes" to any of the following questions:

#10 (SES)
#11 (SES)
#12 (SES)
#13 (SES)

AND Responds "Yes" to the following question:

"Have you ever been raped?" (Demographic questionnaire)

AND Responds "No" to the following question:

"Did you report the rape to the police?" (Demographic questionnaire)

UNACKNOWLEDGED RAPE GROUP

Responds "Yes" to any of the following questions:

#10 (SES)
#11 (SES)
#12 (SES)
AND Responds "No" to the following questions:

#13 (SES) "Have you ever been raped?" (Demographic questionnaire)

CONTROL GROUP

Responds "No" to all the following questions:

#3 (SES)  
#4 (SES)  
#5 (SES)  
#10 (SES)  
#11 (SES)  
#12 (SES)  
#13 (SES)

AND Responds "No" to the following question:

"Have you ever been raped?" (Demographic questionnaire).

AND the Interviewer responds "No" to the PTSD Interview question: "Has the interviewee experienced a trauma?"
REFERENCES


