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DREAMS AND NIGHTMARES AMONG UNIVERSITY WOMEN
WITH A HISTORY OF SEXUAL ABUSE

MARCIA E. FERNANDEZ

A thesis submitted to the Faculty of Graduate Studies and
Research of Carleton University
in partial fulfillment of the requirements for the degree of
Master of Arts

Department of Psychology
Carleton University
Ottawa

May, 1991

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acceptance of the thesis
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for the degree of
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May, 1991

ABSTRACT

Among the symptoms which investigators have found to be present in women with histories of sexual abuse is the occurrence of nightmares. Although the clinical literature is replete with descriptive accounts of the nightmare experience in this population, little empirical work has been forthcoming to validate sleep mentations as a diagnostic aid. The present study sought to explore the frequency and content of dreams and nightmares in a sample of university women, who reported past sexual abuse.

The study compared the dream and nightmare experience among 117 university women who were divided into the following four groups; 30 women who reported sexual abuse-only, 30 who reported physical abuse-only, 19 who reported both sexual and physical abuse, and 38 non-abused comparison women. Data were collected and analyzed for three phases of the study. The first phase elicited information pertaining to abuse history, the second gathered information on demographic and sleep variables, and the third phase collected dream and nightmare content from diaries which the subjects maintained at home over a ten-day period.

Significant differences among the groups were found on measures of dream occurrence and on measures of dream and "worst nightmare" content. Results indicated that women with

histories of sexual abuse reported more sadness, fear and violence in their worst nightmares, and fewer characters in everyday dreams than did the non-abused women.

The need to differentiate between women who have experienced sexual abuse-only and those who have experienced the combination of sexual and physical abuse is discussed within the theoretical framework of a post-traumatic syndrome.

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Marcia E. Fernandez

May, 1991

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CHAPTER 1

Dreams and Nightmares Among University Women With A History of Sexual Abuse

Introduction

The surge in professional concern since the mid 1970s concerning the problem of sexual abuse has led to a substantive growth in the sexual abuse literature. Prevalence studies have confirmed that a history of sexual abuse is found in the backgrounds of a considerable portion of adults in the general population (Bagley & King, 1990; Finkelhor et al, 1990; Haugaard & Reppucci, 1988; Murphy et al, 1988). Among female clinical populations, this proportion is larger still (Briere & Runtz, 1987). To date, many of the clinical reports and much of the empirical research has focused on identifying long-term consequences for those who have experienced sexual abuse, either in childhood, or during adolescence. Clinicians report that presenting symptoms of women, such as depression, sexual dysfunction or anxiety are rarely identified by the patients as originating from unwanted sexual experiences that may have occurred many years earlier (Gelinas, 1983). Because clinicians do not routinely elicit this type of information from their patients (Greenson & Samuel, 1989), therapy is rarely focused on treating the effects of sexual abuse, and may be unsuccessful (Blake-White & Kline, 1985; Faria & Belohlavek, 1984; Gelinas, 1983; Lindberg & Distad, 1985).

For example, Bagley and Young found in a study conducted in Calgary in 1987 that of 82 women with histories of sexual abuse, not a single one had received any therapy which focused on the abuse experiences or its psychological aftermath. Yet 34% of these women had received some psychiatric treatment for psychosis, depression, anxiety or other psychological conditions during the year preceding the study. Thus, identification of patients with a history of sexual abuse remains an important area to be investigated. Accurate identification demands that clinicians develop a comprehensive understanding of presenting symptoms that effectively discriminate abused and nonabused women, or that indicate the need for closer investigation.

The sexual abuse literature has reported that a common consequence of sexual abuse is the occurrence of nightmares. However, to date few studies have addressed this issue, and fewer still have made it the focus of an empirical investigation. The present research project seeks to validate the nightmare experience as part of the aftermath of sexual abuse. In addition to this, the present study extends previous methodology and explores everyday dream patterns, to determine whether nightmare phenomena transfer to a less distressful sleep experience. Dream phenomena may be a promising area yet to be investigated.

Defining Sexual Abuse

There are numerous definitions of sexual abuse found in the literature, yet all acknowledge the following elements: A sexual behaviour is involved, a power differential is present, informed consent is lacking, and there is often a betrayal of trust. The typical scenario is an adult male abusing a female child, but sexual abuse cases are not limited to this, and may include female abusers, male victims, and similar-aged perpetrator and abused. A commonly used operational definition is that advanced by Browne and Finkelhor (1986). According to this definition, childhood sexual abuse refers to forced or coerced sexual behaviour imposed on a child, or sexual activity (even without obvious coercion) between a child and a person who is five or more years older. Sexual abuse may be either incestuous if it occurs within the family unit, or extrafamilial if there is no kinship between the perpetrator and his/her victim.

Sexual Abuse Terminology

Researchers and clinicians in the area of sexual abuse have employed a variety of terms to reference those individuals who have experienced, or those who have reported sexual abuse. Earlier authors adopted the term "victims" to describe these individuals; a term which has endured to the present (Courtois, 1979; Garfield, 1987; Gelinus, 1981; 1983; Finkelhor, 1987; 1990; Peters, 1988). A rationale for the use of this term has been forthcoming from Finkelhor (1987), who

emphasizes that those who have experienced sexual abuse had no control over the event. The lack of control over an externally-originating event likens those who have experienced sexual abuse to other individuals who have experienced crime, war, or natural disasters. While the use of the term "victim" acknowledges the trauma associated with sexual abuse and challenges the notion that it was self-inflicted (a tendency arising from the early psychoanalytic school of thought), some researchers (in particular those with a feminist orientation), believe the term imposes powerlessness on individuals who are already handicapped in this respect, as they have failed to maintain control over the events in their lives (Cuddy, 1990; Edwards & Donaldson, 1989; Ellenson, 1985; Faria & Belohlavek, 1984; Siegel & Romin, 1990).

An alternate term, "survivor" has gained widespread popularity among those researchers and clinicians who disfavor the term "victim" (Cuddy, 1990; Edwards & Donaldson, 1989; Ellenson, 1985; Faria & Belohlavek, 1984, Siegel & Romin, 1990). These researchers believe that by referring to individuals who have experienced sexual abuse as "survivors", the magnitude and severity of sexual abuse itself is addressed. The use of the term "survivor" gives a sense of personal strength back to these individuals, and helps to alleviate feelings of powerlessness associated with abusive experiences. It recognizes the atrocity of what these individuals have endured, and injects optimism into their

ability to overcome traumatic effects of the abuse, and to continue on with satisfying lives.

In the present work, the use of both the term "victim" and of the term "survivor" has been avoided. Although these terms seem appropriate in some cases of sexual abuse, the use of either one as a referent seems unsatisfactory. While there are clearly many individuals who may be considered "survivors" in that they continue to maintain good mental health despite past sexual abuse, there are also others for whom the term "victim" is more appropriate. In the absence of satisfying global terminology, the present work has selected referents that may be considered "value-neutral"; for example, "women with a history of sexual abuse", "women reporting sexual abuse" and "women disclosing unwanted sexual activity" have been used throughout.

Prevalence of Sexual Abuse

Prevalence refers to the distribution of those in the population who have, at a given time, experienced sexual abuse. Because the outcome of any prevalence study may be affected by a number of factors; including the definition of abuse that the investigators employ, the method of data collection, and the nature of the population studied, a true statistical picture of the prevalence of sexual abuse remains elusive (Painter, 1986).

Recently conducted studies illustrate the difficulty in establishing a consistent prevalence rate. Finkelhor and his

colleagues (1990) conducted the first U.S. national survey. The investigators conducted telephone interviews of 1481 women and established that 27% had been the recipients of unwanted sexual experiences before reaching 18 years of age. In this survey participants were able to disclose abuse through responses to four questions, including one which related to non-contact sexual abuse (i.e., participation in nude photography or exhibitionism).

The National Population Survey, conducted by Badgley (1984), sampled 2008 Canadians age 18 or older living in 210 communities across Canada to determine the incidence and prevalence of sexual offenses in general. Responses to the hand-delivered questionnaire revealed an overall abuse prevalence rate of 54% for females and 31% for males. When contact only experiences were examined, 34% of females and 22% of males reported sexual abuse. Similar figures were reported by Russell (1983), who interviewed 930 women randomly selected from the San Francisco area about intrafamilial and extrafamilial sexual abuse experienced before age 18. Overall, 38% of the women reported to have experienced at least one incident of abuse involving physical contact before age 18. When the definition of sexual abuse was broadened to include experiences with exhibitionists and other non-contact episodes, the proportion of women reporting abuse rose to 54%. These figures are remarkably similar to those reported by Badgley (1984) despite the difference in populations (i.e.,

Badgley's study drew from rural and urban centres whereas Russell's sample was exclusively urban). However, the Badgley and Finkelhor studies, while both national surveys, reported very different prevalence rates (54% vs 27% of total women surveyed). A possible explanation for this discrepancy may be in the method used to collect information: written questionnaires may offer greater anonymity than questions asked over the telephone.

In 1987 Briere and Runtz studied a clinical sample of 152 women and found that 44.1% of them reported they had experienced sexual contact initiated by someone five or more years older before age 15. This contrasts sharply with the results of a 1988 study conducted by the same authors using a college population. Of the 278 women who participated in that study, only 14.7% reported sexual abuse based on the same criteria as employed in the clinical population study. More recently, Cuddy (1990) found that 23.01% of the 539 college women in her study reported unwanted sexual activity, with 50% of these subjects having experienced at least one incident of abuse before age 14.

Overall, higher prevalence rates are reported in clinical populations, a finding that is hardly surprising given the devastating effects many individuals experience.

Long-term Effects of Sexual Abuse

Although there have been innumerable clinical reports documenting the deleterious long-term consequences of

childhood sexual abuse (Courtois, 1979; Jehu, 1989; Faria & Belohlavek, 1984; Finkelhor et al, 1990; Gelinas, 1981; 1983; Gordy, 1983; Lindberg & Distad, 1985), it is only recently that controlled studies have begun to confirm that sexual abuse is indeed associated with impairment in adult functioning (Bagley & Ramsay, 1986; Briere & Runtz, 1988; 1990; Cuddy, 1990; Edwards & Donaldson, 1989; Fromuth, 1986; Greenwald & Leitenberg, 1990; Murphy et al, 1988). These studies indicate that not all problems experienced by those with histories of sexual abuse are severe and further, that the effects of sexual abuse may be mediated by factors such as type of abusive act, age of onset, duration and frequency of abuse, relationship to the perpetrator, whether or not force was used and other factors. For example, some researchers have reported that impaired emotional functioning may be masked by overcontrol and the adoption of a "superwoman" exterior. However, in saying that women who have experienced sexual abuse do not always exhibit impaired functioning, caution needs to be exercised because the effects of sexual abuse may not appear for many years (Gelinas, 1983; Russell, 1986).

The literature provides substantial evidence of the link between mood disturbance and a history of sexual abuse; the most frequently cited is depression. Other negative states found include low self-esteem, anger and hostility, and a long-term sense of helplessness and powerlessness (Bagley &

King, 1990; Blumberg, 1981; Briere & Runtz, 1988; 1990; Cuddy, 1990; Faria & Belohlavek, 1984; Gelinas, 1983; Jehu, 1989; Meiselman, 1979). It is hypothesized that these negative states result in one of two behaviour profiles often seen in women whose histories include sexual abuse. Avoidance behaviour may lead to social isolation and extreme difficulty in forming close personal relationships. Conversely, acting-out behaviour may bring conflict with significant others, interpersonal violence, drug and alcohol abuse, and promiscuity (Edwards & Donaldson, 1989; Meiselman, 1979).

Women who have been sexually abused frequently report sexual maladjustment. This may be manifest as an aversion to sexual activity, frigidity, or conversely, as promiscuity or prostitution (Bagley & MacDonald, 1984; Fromuth, 1986; Herman, 1981). Meiselman (1979) also suggests that abused women may experience strong urges to molest a child.

Eating disorders, alcohol and drug abuse, and ultimately suicide ideation or attempts are all examples of self-destructive behaviours which have been documented by researchers and clinicians (Briere & Runtz, 1987; 1988; 1990; Cavaiola & Schiff, 1989; Edwall et al 1989; Gordy, 1983; Herman, 1981; Meiselman, 1979; Peters, 1988; Singer et al, 1989). Further, the tendency toward revictimization of these women has been noted by several researchers (e.g., Briere & Runtz, 1987; Browne & Finkelhor, 1986; Murphy et al, 1988; Russell, 1984; 1986). To illustrate, Russell found that 68%

of incest victims in her San Francisco study (1983) had been the victims of rape or attempted rape by a non-relative at some time in their lives compared with 38% of the non-abused women. Russell also found that reports of the incidence of subsequent non-incestuous sexual assault were also much higher for incest victims than for the non-abused women: 82% vs 48%. Revictimization also appears to extend to non-sexual situations. Finally Russell reported that 38% of women who were incestuously abused reported that their husband had been physically violent toward them, whereas only 18% of women with no history of incest were battered by their husbands.

Some researchers have put forth hypotheses to explain revictimization. Finkelhor and Browne (1986) theorize that four trauma-causing factors (traumatic sexualization, stigmatization, betrayal, and powerlessness) alter the child's emotional and cognitive orientation to the world, and simultaneously produce an impaired self-image. In combination, a low sense of self-efficacy and distorted projections of the self result in increased vulnerability. Russell emphasizes the role of the perpetrator in subsequent victimization. She suggests that society raises males to behave in a predatory manner toward females, thus a vulnerable girl is easily undermined.

Dissociation or depersonalization is another symptom which may persist for many years after the abuse. Clinicians relate this process to a defensive strategy induced by the child

while abuse is ongoing (Blake-White & Kline, 1985; Briere & Runtz, 1987; 1988; Cuddy, 1989; Ellenson, 1985; Finkelhor, 1987; Gelinas, 1983). For example, women have reported attempts to leave their body temporarily, become part of the wall, or float near the ceiling. Similarly, many women are amnesiac for much of their childhood. These processes testify to the strength of denial which these women maintain.

Finally, some clinicians and investigators have reported that women who have experienced sexual abuse are subject to thought content disturbances, often in the form of repetitive nightmares (Cuddy, 1990; Ellenson, 1985; Garfield, 1987). These investigations are of particular interest in the present study.

Dreams and Nightmares

Nightmares are frightening dreams which usually occur during periods of sleep when Rapid Eye Movement (REM) and stage 1 brain activity are jointly detected by EEG readings. (Hall & Van de Castle, 1966). Dreams are usually defined in reference to their discontinuity with waking experience. That is, dreaming events do not obey the usual laws of the physical world and the dreamer does not relate events to their past life experience or present worldly circumstances (Green, 1968). Night terrors, often confused with nightmares, are characterized by spontaneous arousal accompanied by extreme anxiety, or panic. They occur most often in the early stages of sleep, may be accompanied by body movements, sleep

utterances, and increased heart and respiration rates. Often, there may be amnesia for the experience. In other instances, content, usually in the form of an image, is retrievable (Fisher et al, 1973).

Nightmares in Sexually Abused Children

The sexual abuse literature has acknowledged the association of nightmare occurrence with a history, or even a single episode of sexual abuse among all age groups. Most texts written for those whose therapeutic or educational interests include child sexual abuse provide some reference to nightmare occurrence in children who have experienced sexual abuse. While some authors merely document the association of nightmares and sexual abuse (Bagley & King, 1990; Haugaard & Reppucci, 1988), others theorize that nightmares are manifestations of depression, fear, anxiety or feelings of powerlessness that these children experience (Blumberg, 1981; Sgroi, 1982; Tower, 1989).

Some clinicians have attempted to quantify the occurrence of nightmares experienced by their patients. For example, Peters (1976) obtained reports of nightmares in 20% of 64 victimized children. Lindberg and Distad (1985) reported that all of the 27 adolescent incest victims who were receiving therapy for effects of sexual abuse experienced recurrent dreams or nightmares about the abuse. Adams-Tucker (1986) reported that nightmares characterized the psychiatric evaluations of the preschool children in her clinical population of 27 victims

aged 2.5 to 15.5 years. Nightmares were found to be among the most frequently reported symptoms on a checklist which Mannarino and Cohen (1986) developed to evaluate the psychological state of 45 sexually abused children. Conclusions from these studies are limited however, as none incorporated a control group for comparison purposes.

Conte and Schuerman (1988) gathered data on 369 sexually abused children age 4 to 17 years, and compared this group to a control sample of 318 children recruited from the community. Based on responses to the 38 items contained in the Symptom Checklist, nightmares/sleep disorders ranked fourth in occurrence, with 20% of the abused group manifesting this symptom. Unfortunately, this cannot be compared with the control group since data were not provided by the authors.

Taken together, the findings of a number of investigators indicate that nightmares typically occur in children who experience sexual abuse regardless of the child's developmental stage. It is the persistence of nightmares into adulthood, or their reemergence in adulthood, which will be examined in this study.

Detecting Women With a History of Sexual Abuse

It has been repeatedly underlined in clinical reports that although not all women disclose a history of their abuse when seeking treatment, it is important that the clinician have this knowledge (Briere & Runtz, 1987; Ellenson, 1985; Faria & Belohlavek, 1984; Gelinas, 1981; 1983; Lindberg & Distad,

1985; Siegel & Romig, 1990). Given the reluctance of clinicians to inquire and clients to disclose, much attention has focused on successful diagnosis of past sexual abuse from presenting symptoms. As increasing information is amassed about long-term effects, some investigators propose that understanding the syndrome is best done within the framework of Post-Traumatic Stress Disorder (PTSD) (Blake-White & Kline, 1985; Edwards & Donaldson, 1989; Greenwald & Leitenberg, 1990; Lindberg & Distad, 1985). The PTSD concept was initially formulated in application to war veterans (Card, 1987; Eichelman, 1985), but has been applied to refugees (Cernovsky, 1988) as well as to those who have experienced sexual abuse. The DSM IIIR (American Psychiatric Association, 1987) criteria includes the following components which have been noted singly and in combination in women reporting sexual abuse histories: the existence of a recognizable stressor that would evoke significant distress in almost anyone; the re-experiencing of the trauma through dreams and recollections; a numbing of responsiveness to the external world; at least two symptoms from a constellation including hyperalertness, sleep problems, memory or concentration problems and survival guilt.

While some investigators have discounted the applicability of PTSD to those with sexual abuse histories, preferring instead a separate and unique diagnostic category (Briere & Runtz, 1987; Finkelhor, 1987), PTSD has provided the

rationale for nightmare research within this population. Studies which have investigated nightmare occurrence in those who have experienced sexual abuse may be categorized in one of two ways. Research may be directed toward diagnosing the post-abuse syndrome (Ellenson, 1985; Garfield, 1987; Peters, 1988), or it may be aimed at the development of a methodology to reliably identify individuals with histories of sexual abuse (Briere & Runtz, 1987; 1988; 1990; Cuddy, 1990).

Gelinas (1983) asserts that the range of problems and symptoms displayed by women who have experienced incest in the past are accounted for by three persisting, negative effects; "chronic traumatic neurosis", "continuing relational imbalances", and "increased intergenerational risk of incest". Frequent nightmares, which are symptomatic of chronic traumatic neurosis, represent the involuntary reemergence or repetition of some aspect of the trauma after what may have been years of denial and repression, defences necessitated by the overwhelmingly painful nature of the trauma. The author includes recurrent nightmares on her Incest Recognition Profile to aid in the diagnosis of "disguised presentations" (p.326) since treatment of the incest itself rather than of the symptoms is more fruitful.

Blake-White and Kline (1985) and Lindberg and Distad (1985) describe recurring nightmares within the framework of PTSD. However, Ellenson (1985) contends that some symptoms may be unique to those reporting incestuous abuse, and therefore, an

independent diagnostic category is needed. Ellenson's criteria for diagnosis of a post-sexual abuse syndrome includes recurring nightmares as evidence of thought content disturbances. Ellenson elaborated on nightmare content, suggesting that themes may include danger to the client and/or family members, death or harm to children, or scenes of death or violence.

Briere & Runtz (1987) compared symptoms of sexually abused and non-abused women in a clinical sample of 152 adults. Results indicated that 53.7% of the abused women had experienced at least one nightmare within two months prior to the study compared with only 23.3% of the non-abused women. The most comprehensive investigation into the association between a history of sexual abuse and nightmare occurrence was conducted by Cuddy (1990), who studied the association of nightmares with past sexual abuse in a sample of 539 university women. Specifically, the study sought to examine the validity of nightmares, dissociation and somatization as symptoms predictive of a history of sexual abuse. Based on data elicited by a Nightmare/Sleep History Questionnaire, developed for the study, Cuddy found that the sexually abused group of women experienced an average of 12.95 nightmares per year as compared to 6.81 for the comparison group. Further, there was a significant difference in nightmare frequency during childhood and adolescence. Significant differences between the sexually abused and comparison groups were also

found for subjects' retrospective reports of the number of repetitive nightmares that they experienced per year and for the number of similarly themed nightmares that they experienced per year. The author found support for the predictability of a history of sexual abuse based on nightmares, somatization and dissociation, with nightmares providing the most conclusive evidence.

Nightmare Content

There is sufficient mention in the literature about the content of nightmares experienced by individuals with histories of sexual abuse to hypothesize that the content differs from that in nightmares experienced by other non-abused members of the population. Themes that have been reported with high frequency in the nightmares of these individuals include being chased (Cuddy, 1990; Garfield, 1987; Sebold, 1987), themes of violence or death (Cuddy, 1990; Ellenson, 1985; Faria & Belohlavek, 1984; Garfield, 1987; Schultz & Jones, 1983; Weiss et al, 1955), and themes of negative sexual activity (Cuddy, 1990; Faria & Belohlavek, 1984; Schultz & Jones, 1983).

Just as the literature suggests that certain themes appear more frequently in nightmares of sexually abused individuals from childhood through adulthood, the literature also suggests that emotional content and presence of certain themes and objects in nightmares may be a phenomenon seen across age groups in a sexually abused population. For example, several

clinicians have reported that the fear of being controlled by a more powerful person is a frequent theme in the nightmares of sexually abused children (Sebold, 1987). In younger children, therapists note that dreams and nightmares often fixate on concrete objects, such as snakes or bees.

Garfield (1987) studied nightmare content in a sample of 13 sexually abused adolescent girls. She reported that 92% of the nightmares reported by these girls evidenced helplessness as the prevailing emotion, followed closely by terror which was expressed in 85% of the nightmares. However, as neither Sebold nor Garfield used comparison groups, nothing conclusive may be extracted from these findings.

Cuddy (1990) analyzed nightmare content by means of a feature checklist. She reported that the sexually abused women in her study reported significantly more violence, injury, death of the dreamer, body anatomy and sadness than the comparison group.

At present, empirical evidence to support differences in nightmare content for sexually abused and non abused groups rests solely on the work of Cuddy. While Garfield's methodology of obtaining a written record of each subject's worst dream in addition to conducting a personal interview represents an improvement over brief descriptions offered by other researchers (e.g., Ellenson, 1985; Faria & Belohlavek, 1984; Schultz & Jones, 1983; Sebold, 1987; Weiss et al, 1955), the small sample size and specific nature of the sample

(i.e., severely sexually abused adolescent girls) do not permit generalization to other less-severely abused individuals. Cuddy's methodology included a checklist composed of 21 features that could occur in nightmares, in addition to subject's written reports of their worst nightmare and of a typical nightmare. Inter-rater reliability in scoring the nightmare reports was reported by the investigator to average 90.5 across nine categories, allowing firm conclusions about significant results.

Summary and Prospectus

In summary, although there is sufficient evidence that sexually abused women have disproportionately more nightmares, both during childhood and adulthood, the lack of empirical evidence permits few conclusions about nightmare content in this population. However, clinical reports coupled with the results of the Cuddy study address the relevance of specific thematic and emotional content in distinguishing this group from others. The purpose of the present research then, is to follow up on previous findings and to extend previous methodology by examining the everyday dream experience, as well as to investigate nightmare occurrence. The implications of this study address the need for clinicians to have reliable diagnostic aids in treating women with histories of sexual abuse.

The present study, arises from Cuddy's work (1990) and seeks to replicate her findings as well as to extend the

methodology. Cuddy's results indicated that women reporting past unwanted sexual activity during childhood and/or adolescence experience more nightmares than non-abused women. Further, the content of the nightmares of these women also differs from those who do not report unwanted sexual activity. A pilot study conducted by the author (Fernandez, 1990) suggested that differences in frequency and content may not be restricted to nightmares, but may also be evident in the dreams which these women experience. The pilot study was based on information about both dreams and nightmares, collected through an expanded version of Cuddy's Nightmare/Sleep History Questionnaire. Results indicated that women who reported unwanted sexual activity were more likely, on average, to awake in the morning recalling both more dreams and more nightmares than did the comparison group of women who did not report unwanted sexual activity. The pilot study hypothesized that a sexual abuse group would report fewer dreams than the comparison group. The rationale for the hypothesis was that the sexual abuse group of women would have had fewer sleep experiences that they judged to be pleasant, or emotionally neutral. Thus, the results were unexpected and prompted the design of the present study.

The present study incorporates a methodological refinement in the Cuddy study and the pilot study that will improve the quality to date of collection of dream and nightmare content. The pilot study utilized a Dream Diary which subjects

maintained over a ten day period to collect dream/nightmare content, and the Cuddy study relied on subjects' retrospective reports of a "worst" and "typical" nightmare. The present project will incorporate both methods in an attempt to gather as much content information as possible. In addition to a diary, subjects will be asked whether or not they experienced their worst nightmare ever during the ten day period under scrutiny. In the event that they did not, they will be asked to record it from memory on a "Worst Nightmare Report".

A final issue to be addressed by the present study involves the inclusion of a comparison group who report physical abuse, in addition to a group who do not report unwanted sexual activity or physical abuse. It is rationalized that the inclusion of a group who report experiences of physical abuse will help to clarify whether or not dream and nightmare patterns are distinguishable among the groups on the basis of type of trauma reported, or whether a more global concept of violation of one's body at the hands of another is more appropriate. Claims that sexual abuse need not be traumatic or harmful have appeared intermittently throughout the literature (Freud, 1896/1962a; Kinsey, 1953; Lempp, 1978). Although these authors acknowledged that sexually abused children exhibited guilt, shame and depression, they attributed these symptoms to factors other than the abuse experience. For example, Lempp (1978) believed that guilt followed from the child's awareness of family embarrassment

when police and courts became involved. In 1969, Bagley conducted a study of children who had been removed from their homes because of abuse or neglect. He concluded that the sexually abused children were not negatively affected by the abuse since they had come from disorganized, lower-class families where sexual activity with children was accepted. Rather, any negative consequences would have resulted from family characteristics and maternal deprivation. To test this hypothesis, Bagley and MacDonald conducted a follow-up study (1984) of 61 women from the 1969 study. Of the 61 original subjects, 20 women who had been removed from their homes in childhood had also been sexually abused, while the remaining 41 who had been removed from the home had not been sexually abused. Contrary to their expectation, the authors found that the sexually abused women had the poorest mental health. They concluded that sexual abuse does indeed have serious long-term consequences, impacting most notably on sexual adjustment, depression and self-esteem.

Results of the Cuddy study (1990) have also helped to substantiate claims that the experience of sexual abuse itself, rather than family dysfunction, is responsible for poor mental health in women who have experienced sexual abuse. Cuddy compared 122 sexually abused women to 70 physically abused women, and to 332 women who did not disclose any abuse. The sexual abuse group scored higher on measures of depression, somatization, and reported more frequent and more

repetitive nightmares. Cuddy found that women who reported both sexual and physical abuse had nightmare characteristics that were more similar to those of the sexual abuse-only group than to the physical abuse-only group. Cuddy interpreted these findings as indicative of the more harmful effects of sexual abuse than of physical abuse.

In the present study, sexual abuse is determined to have occurred when subjects indicate on the Major Events Inventory (see Appendix G) unwanted sexual activity. However, the inventory permits classification by age at the time of abuse, the age differential between the abused and the perpetrator, whether a single incident occurred or multiple episodes, and whether the abuse was incestuous or extrafamilial. All women reporting unwanted sexual activity are included in the sexual abuse group for several reasons. First, this study is exploratory in that little research has focused on non-clinical adult women. Those studies which have investigated nightmares in university women suggest that differences in frequency and content are more similar than dissimilar across categories of abuse (Cuddy, 1990; Fernandez, 1990). Second, the difficulty in obtaining a sufficient number of university subjects in each abuse category that would ensure statistical reliability would require resources beyond those afforded by this project. Finally, contradictory findings in the literature indicate that individual characteristics are important to consider when studying the aftermath of sexual

abuse. While there are many women whose symptomatology may be considered severe in that treatment is sought, there are still many others who are able to maintain daily functioning and who do not seek out professional help (Badgley et al, 1984; Russell, 1986). It would seem reasonable to postulate that any incident of unwanted sexual activity may alter one's pattern of dreaming, and that any alteration may be mediated both by individual characteristics, as well as by the specifics of the abuse.

In the present study, subjects classified their own sleep experience as being either a nightmare or a dream. However, the distinction between nightmares and night terrors was made for subjects in the introduction. They were advised that night terrors usually occur during the first few hours of the night and result in the individual awakening in a panic state, but unable to recall a dream. Nightmares however, may occur at any time during the night and leave the dreamer with memory for partial or full content.

Hypotheses

The present investigation set forth several hypotheses to be tested. These are as follows:

1. The sexually abused group would report a significantly greater frequency of dreams than the physically abused or non-abused comparison groups.
2. The sexually abused group would report a significantly greater frequency of nightmares than the physically abused or

non-abused comparison group.

3. There would be a significantly greater proportion of recurrent dreams and nightmares in the sexually abused group than in the physically abused or non-abused comparison groups.

4. The sexual abuse group would exhibit more of the content features contained in the Dream/Nightmare Criteria List than the physical abuse group or than the non-abused comparison group.

CHAPTER 2

Research Design and Method

Subjects

The study comprised three phases. During the first phase, 348 female Introductory Psychology students were screened for disclosures of unwanted sexual activity, for physical abuse and for no abuse. Of this number, 117 female students were recruited to participate in the second and third phases of the study. Subjects were categorized into the following groups: 30 who disclosed unwanted sexual activity only (sexual abuse group), 30 who disclosed physical abuse only (physical abuse group), 19 who disclosed both sexual and physical abuse (sexual and physical abuse group), and 38 women who did not disclose any abuse (comparison group). Of the total 117 women in Phase II, 102 of them completed the third phase; 34 non-abused comparison subjects, 16 sexually and physically abused, 24 physically abused-only, and 28 sexually abused-only. All subjects were given course credit for their participation.

Measures

Phase I: The Major Events Inventory (Appendix G) was administered to all students who attended two classes of Introductory Psychology as part of the Psychology Department's Mass Testing program. The Major Events Inventory was developed by Cuddy (1990) and was also used in the pilot study. This instrument was used to elicit information

regarding the occurrence of unwanted sexual activity and physical abuse in the individual's past. The inventory contains a list of 49 items, both positive and negative, that may occur in life. Physical abuse histories were elicited by four items which specified physical abuse according to the subject's age, whether it occurred before or after age 16, whether a single episode or repeated events occurred, and by whom the subject was abused. Similarly, eight items inquired about past unwanted sexual activity according to the subject's age, whether under or over 14 years, whether the activity was a single incident, or a repeated event, whether the abuser was less than, or more than 5 years older than the subject, and by whom the episode was perpetrated.¹ Subjects responded to the questionnaire items by placing a checkmark beside those events which they had experienced.

Phase II: All subjects who completed Phase II of the study were administered a package containing the following items:

- 1) A written Introduction (Appendix A) was provided which informed subjects that the study was an investigation into individual patterns of dreaming and nightmares with particular focus on the impact of life experiences. The Introduction clarified the difference between night terrors and nightmares for subjects and specified that the sleep experiences of

¹ The classification of sexual and physical abuse by age in the present study is consistent with the majority of researchers in the area and provides a basis for comparison.

interest were remembered dreams and nightmares.

2) An Informed Consent form (Appendix B) advised subjects that their participation was voluntary, that they were not obliged to respond to any items which they did not wish to respond to, and that they were free to withdraw from the study at any time. Additionally, they were advised that all information would be held in the strictest confidence and was to be used solely for research purposes. Subjects were asked to sign and date the Informed Consent.

3) Biographical information was obtained by means of a brief questionnaire which was developed for the present study (Appendix C). This questionnaire elicited age, marital status, sex, and asked subjects whether or not they had experienced a dream or nightmare in anticipation of their participation in the study.

4) The Beck Depression Inventory (BDI) (Beck et al, 1961, Appendix D), was used to evaluate the subjects' current level of depression. The BDI, a standardized instrument which consists of 21 groups of statements, required that the subject select one statement per group that best described how she had been feeling during the week preceding the study. Each response was attributed a point value ranging from 0 to 3. A total score was computed for each subject by summing the points for all responses. Possible total scores which range from 0 to 63 provided a measure of the subject's current state of depression. The authors reported that the split-half

reliability using Pearson r yielded a reliability coefficient of 0.86.

5) A Dream/Nightmare/Sleep History Questionnaire (Appendix E) was adapted from the Nightmare/Sleep History Questionnaire used in the Cuddy study. This questionnaire was expanded to include items pertaining to frequency and repetitiveness of dreams and of nightmares.

6) The Trauma Symptom Checklist (TSC-33) (Appendix F) was the final instrument administered to subjects during the testing session. This instrument was developed by Briere and Runtz (1987) and has been widely used to assess the impact of past sexual abuse on later functioning. The authors have submitted the TSC-33 to rigorous testing (1987; 1988; 1989; 1990) and have established a correct categorization rate of 79% ($p < .0001$) for abused and nonabused women, in addition to a reliability coefficient of .89 for the total TSC-33 score. This inventory was included in the present research for exploratory purposes, to provide an indication of symptomatology in a relatively high-functioning group of women, such as university women. Subjects were asked to select a category (never, occasionally, fairly often, and very often) which best described how often each of 33 symptoms had been experienced in the two months preceding the study.

Phase III: For the third phase, each subject was given a Dream/Nightmare Diary which consisted of ten pages and was asked to record all her dreams and nightmares at home over a

period of ten consecutive days. Each page of the diary asked the subject to classify her experience as either a dream or a nightmare. A copy of the diary page appears in Appendix H. Attached to the last page of the diary was a Worst Nightmare Report (Appendix I). This form asked subjects whether or not they had experienced the worst nightmare of their life during the ten-day period which comprised the course of the study. Those who had were asked to identify it in the diary. Those who had not were asked to record it from memory on the Worst Nightmare Report page.

Procedure

The study consisted of three phases with a portion of the total participation credit allotted for each phase separately. Phase I was the mass testing session conducted by the Psychology Department of Carleton University. During mass testing, 348 female subjects were administered the Major Events Inventory to screen for sexual abuse, physical abuse and a non-abused comparison group. All 96 subjects who disclosed either physical or sexual abuse, as well as a sample of non-abused women to serve as a comparison group, were contacted by telephone and invited to participate in the study. Of this number, 117 participated in Phase II.

Phase II consisted of a one-hour session in the laboratory. During this session, subjects were briefed on the nature of the study. Specifically, subjects were advised that the focus of the study was individual patterns of dreaming and

nightmares. They were also informed that women had been selected because to date, they had been neglected in this type of research. Subjects were advised that the investigator was interested in the impact that one's mood and certain symptomatology had on dreaming and the occurrence of nightmares. It was stressed to the subjects that their participation was voluntary, that confidentiality and anonymity were assured, and that all information was to be used for research purposes only. Subjects were asked not to discuss the nature of the questionnaires with fellow students. Subjects were then given a package containing the questionnaires and were asked to complete them during the current session. The order of presentation of the forms was held constant for all subjects and was as follows: an Introduction to the study, an Informed Consent form, the Biographical Questionnaire, the BDI, the Dream/Nightmare/Sleep Questionnaire, and the Trauma Symptom Checklist. Upon completion of the questionnaires, all subjects were given a Dream/Nightmare Diary since all consented to participate in Phase III. To encourage accurate and honest reporting of subjects' dreams and nightmares, they were instructed to record only those that they were able to recall upon awakening, and that credit for participation in Phase III did not hinge on ten completed forms, but rather would be given when the diary was received by the investigator at the end of the ten-day period. It was articulated that dream/nightmare

frequency and recall are subject to variability, both between individuals and temporally within the same individual.

Debriefing

At the end of Phase III and upon returning the Dream/Nightmare Diary to the investigator, all subjects received a written debriefing outlining the true focus of the study. The written debriefing provided the names of the investigator, her faculty advisor, the Chair of the Ethics Committee and the Chair of the Department. A resource list for victims of sexual assault was also included on this form. A copy of the written debriefing is shown in Appendix J.

In addition to the written debriefing, the investigator contacted all subjects by telephone three months after the completion of Phase III to ensure that there had been no delayed distress responses. One subject reported that she was experiencing personal difficulties but that she had sought the help of a therapist. The woman felt certain that her distress was unrelated to the study as she had sought therapy numerous times in the past.

Scoring Dream/Nightmare Diaries

A list of criteria was compiled based on the results of the pilot study and the findings of earlier researchers (Cuddy, 1990, Ellenson, 1985, Garfield, 1987). The scoring criteria are shown in Appendix K. A second, independent rater who was blind as to group membership scored 27% of the diaries, which were randomly selected.

The scoring protocol represented a scaled-down version of a widely-used system devised by Hall and Van de Castle (1966). Characters, animals and objects from the criteria list which were present in the dream report received one point each. Groups, crowds, gangs and other expressions indicating multiple characters were assigned two points. Characters referred to in a generic sense were not scored. For example, if the dreamer stated "I did not want people to see me", no points were allotted. Non-human characters included monsters, robots, aliens, and other characters who were neither human nor animals but exhibited life-like qualities.

Emotions were scored only if the dreamer expressed a specific emotion, or if autonomic activity was described which typically conveys an emotion. For example, if the dreamer stated "tears ran down my face", a point would be assigned for sadness. However, expressions such as "I was upset" or "I was feeling bad" were not scored as it was determined that such phrases were too ambiguous. Expression of an emotion received one point if it appeared in the dream.

Each theme received one point, with multiple themes being possible in some reports. For example a dream in which the dreamer was alone, then chased and caught by an intruder but later escaped would score one point for each of the themes of alone, chasing, and escape. Violence was scored each time a separate incident of physical or verbal aggression occurred. Similarly, death received one point for each incident of

death. In cases where the dreamer used collective terms to refer to multiple deaths, two points were assigned. To illustrate, if the dreamer reported that "her family was dead", or that "a bunch of dogs were dead", two points were assigned. Scores were computed for each subject in all categories by adding the assigned points across the total number of dream and nightmare reports. Thus, each subject received one score for each feature appearing in the criteria list. The total score was then divided by the number of dreams and nightmares the subject recorded to yield a single frequency score.

The Worst Nightmare Reports were scored separately but by means of the same scoring protocol. A sample dream report, taken from the pilot study has been scored and is shown in Appendix L.

CHAPTER 3

Results

The results of the analyses performed on the data set are presented according to the phases of the study which they address, in order to provide as clear and accurate a description as possible. The analyses were conducted using several different statistical tests as deemed appropriate by the data at hand and by the purpose of the test. These tests are described within the presentation of each phase's results. Similarly, treatment of problems incurred (for example, outlying cases, poor variability, or non-normality of distribution) are also discussed within each section.

The study set forth four hypotheses which were predicated on the initial study design. According to the original design, three groups were to be studied: a sexual abuse group, a physical abuse group, and a non-abused comparison group. However, analysis of Phase II data suggested that inclusion of a fourth group, one disclosing both sexual and physical abuse, was warranted. This issue is more fully developed in the discussion following the results.

Phase I Data

The Major Events Inventory was administered to a large number of Introductory Psychology students as part of Carleton University's mass testing program. Questionnaires completed by 348 female students were analyzed. Table 1 illustrates

that 60 women (17.25%) disclosed unwanted sexual activity, 36 (10.34%) disclosed physical abuse, and 250 (71.84%) disclosed neither physical nor sexual abuse. Questionnaires for two women were omitted from further analysis as both had checked off unwanted sexual activity and subsequently had scratched it out. Of the 60 women who disclosed unwanted sexual activity, 34 of them (56.67% of women disclosing unwanted sexual activity) disclosed unwanted sexual activity only, while the remaining 26 (43.33%) disclosed both unwanted sexual activity and physical abuse.

Response Rate

The investigator contacted 58 women who disclosed unwanted sexual activity, 34 women who disclosed physical abuse and a random sample of 51 women who did not disclose any abuse to serve as a comparison group, by telephone to explain the nature of the study and invite their participation. Of the total 143 women contacted, 117 of them agreed to participate in the study, yielding an overall response rate of 81.82%. As Table 2 illustrates, the highest rate of response was in the physical abuse group in that 30 of 34 women agreed to participate (88.24%). Within the sexual abuse group, 49 of 58 women contacted (84.48%) agreed to participate, while the non-abused comparison group had the lowest rate of response in that 37 of 51 women contacted (72.55%) wished to participate.

TABLE 1

Phase I Rate of Reporting of Sexual and Physical Abuse

Disclosure	n	% of All Women
Sexual Abuse	60	17.25
Physical Abuse	36	10.34
Non-abused	250	71.84
Undetermined	2	.57
Total	348	100.00

TABLE 2

Response Rate for Phase II Participation

Group	# Contacted	# Participated	% of Group
<hr/>			
S.A.	58	49	84.48
P.A.	34	30	88.24
Non-abused	51	37	72.55
<hr/>			
Total	143	117	81.82

Description of Sexual Abuse

Based on responses to items pertaining to unwanted sexual activity contained in the Major Events Inventory, sexual abuse experiences may be described along several dimensions (see Table 3). Of the total 49 women who participated in the study and disclosed unwanted sexual activity, 33 of them (67.4%) had reported extrafamilial episodes only, while 10 women (20.4%) had reported incest experiences only. Both incest and extrafamilial abuse were reported to have occurred for 5 of the women (10.2%) and 1 case was not categorized due to missing information.

Single episodes of abuse were reported by 29 women (59.2%) while 20 women (40.8%) reported multiple incidents. For 21 of the women (42.9%) the unwanted sexual activity was reported to have occurred earlier than age 14, while 20 women (40.8%) reported that they were abused when they were 14 years of age or older. Eight women (16.3%) reported that they experienced unwanted sexual activity both before and after the age of 14.

With respect to the abuser, 39 women (79.6%) reported that abuse was perpetrated by a single individual, while 10 women (20.4%) reported abuse by more than one individual. The abuser was 5 years or more older than the abused in 34 reported episodes of abuse (58.6%) and less than 5 years older in 24 episodes (41.4%).

TABLE 3
Description of Sexual Abuse

Type of Abuse	n	% of S.A. women	% of total sample
Incest only	10	20.41	8.55
Extrafamilial only	33	67.35	28.21
Incest & Extrafamilial	5	10.20	4.27
Unclassified	1	2.04	.85
Single Event	29	59.18	24.79
Repeated Event	20	40.82	17.09
One Abuser	39	79.59	33.33
More than 1 Abuser	10	20.41	8.55
Abuse < 14 yrs.	21	42.86	17.95
Abuse 14 yrs. or >	20	40.81	17.09
Abuse before & after age 14	8	16.33	6.84
Abuser >5 yrs.older	34	: 58.62% of reported incidents	
Abuser <5 yrs. older	24	: 41.38% of reported incidents	

Description of Physical Abuse

Data obtained from the Major Events Inventory provide a descriptive view of the physical abuse experienced by the sample (see Table 4). A total of 49 women reported physical abuse, 34 of whom (69.4%) reported repeated episodes of abuse while 15 women (30.6%) reported a single incident of physical abuse. Physical abuse was reported by 23 women (46.9%) to have occurred when they were less than 16 years of age, and by 12 women (24.5%) after they had reached the age of 16. Abuse both before and after the age of 16 was reported by 14 women (28.6%).

The reports of 34 women (69.4%) indicated that physical abuse was inflicted by a single individual, while 15 women (30.6%) reported that they were abused by more than one person. A total of 62 abusers were indicated on the inventory, with 36 of them (58.1%) identified as either fathers (13 cases), boyfriends (13 cases), or brothers (10 cases). Mothers were the abusers in 12 cases (10.3%), and 1 case identified a sister (1.6%). A total of 13 abusers (26.6%) were classified in the "Other" category.

Phase II Data

A Biographical Questionnaire, the Beck Depression Inventory, the Dream/Nightmare Sleep History Questionnaire and the Trauma Symptom Checklist (TSC-33) were completed during Phase II by a total of 117 women: 30 women who disclosed unwanted sexual activity only (sexual abuse group), 30 women

TABLE 4

Description of Physical Abuse

Type of Abuse	n	% of P.A. women	% of total sample
Single episode	15	30.61	12.82
Repeated episodes	34	69.39	29.06
Abuse < 16 yrs.	23	46.94	19.66
Abuse ≥ 16 yrs.	12	24.49	10.26
Abuse before & after age 16	14	28.57	11.97
Single Abuser	34	69.39	29.06
More than 1 abuser	15	30.61	12.82
Abuser: Father	13	26.63	11.11
Mother	12	24.49	10.26
Siblings	11	22.45	9.40
Boyfriend	13	26.63	11.11
Other	13	26.63	11.11

who disclosed physical abuse only, 19 who disclosed both physical and sexual abuse, and 38 non-abused comparison women. Preliminary statistics computed from the Phase II inventories suggested that the group which disclosed both sexual and physical abuse be analyzed as a distinct group. This group appeared to differ from both the sexual abuse-only group and the physical abuse-only group, although previous studies (Cuddy, 1990; Fernandez, 1990) found subjects who disclosed both physical and sexual abuse to closely resemble sexual abuse-only subjects. Prior to subjecting the data to analysis, all variables were screened for normality of distribution, missing data, and to search for univariate outliers. In the interests of clarity for the reader, the results of data screening and the analysis of Phase II data are presented as they relate to each questionnaire (See Table 5).

Biographical Questionnaire

A one-way ANOVA computed for age revealed that there were no significant differences among the groups ($p > .05$). The sexual and physical abuse group was slightly older on average (mean=21.32 years) than the other three groups. Means for these groups were 19.57, 20.57 and 19.37 for the sexual abuse only, physical abuse-only and non-abused comparison groups respectively (see Table 5).

A chi-square analysis was performed for the categorical variables of marital status and for whether or not the subject had experienced a dream or nightmare in anticipation of

participating in the study. No statistically significant differences among the groups were found on either variable ($p > .05$).

With respect to marital status, all subjects in the sexual abuse-only group and the comparison group reported that they were single. There were 2 subjects in the physical abuse-only group who reported that they were married. In the sexual and physical abuse group 1 subject reported her status as married, while 1 subject reported that she was divorced. Thus, of the total 117 women who completed the Biographical Questionnaire, 113 of them were single, 3 were married and 1 was divorced.

A chi-square analysis was performed on 3 categories of possible responses to the question "Have you experienced a dream or nightmare in anticipation of your participation in this study?" Subjects could indicate that they experienced a dream, a nightmare or neither. Results of the analysis were non-significant. The majority of subjects, 92 of them (78.6%) reported that they experienced neither a dream nor a nightmare. Of the remaining 25 subjects who participated in Phase II, 21 of them reported to have experienced a dream in anticipation of their participation (17.9%); 8 subjects in the sexual abuse-only group, 5 subjects in the physical abuse-only group, 6 subjects in the comparison group and 2 subjects in the sexual and physical abuse group. Only 4 subjects (3.4%) reported they had experienced a nightmare in

anticipation, 3 of whom were in the physical abuse-only group while the other subject was in the comparison group.

Beck Depression Inventory

BDI scores were computed for all subjects and subjected to a one-way ANOVA. Contrary to expectation, no significant differences emerged among the groups. The mean for the group reporting sexual and physical abuse was the highest (13.68) and approached a clinically significant score of 15. The sexual abuse-only group and comparison group means were similar (9.67 and 9.61 respectively), while the physical abuse-only group scored in the middle (mean = 11.43).

Dream/Nightmare Sleep History Questionnaire

The Dream/Nightmare Sleep History Questionnaire was completed by 116 subjects, with the Inventory missing from the returned package for 1 subject in the sexual abuse-only group. Chi-square analyses were performed for 2 categorical variables contained in the questionnaire: mood upon awakening after experiencing a dream or nightmare (in general) and amount of time awake when awakened by a dream or nightmare (in general). Responses to both items were on a 7 point Likert-type scale. Results of the analysis failed to reach levels of statistical significance ($p > .05$).

Four composite variables were derived from 13 of the items in the Inventory in order to reduce the data. Items 5 to 10 contained in the Inventory (see Appendix E) were summed and averaged to yield a single variable termed "frequency of past

sleep experiences". Items 14 to 16 were also averaged to yield a "number of sleep experiences" factor. Items 19 and 22 were averaged to produce a "repetitiveness" variable and items 20 and 23 were averaged to produce a "variation in dream/nightmare ending" variable. Prior to analysis, distributions for all 4 variables were subjected to a log transformation in order to improve them (Tabachnick & Fidell, 1989). Group means were inserted for 14 cases with missing values as these cases appeared to be randomly distributed among both the groups and the variables. After transformation, 3 outlying cases were identified based on the criteria of plus or minus 3 standard deviation units from the mean. Two cases had extremely high values on the frequency of past sleep experiences variable: 1 case in the sexual abuse-only group, and 1 case in the comparison group. One case in the group reporting both sexual and physical abuse had an extremely high value for the number of sleep experiences experienced within the past year. For all 3 cases, the value was reduced to one unit higher than the next highest case rather than deleted (Tabachnick & Fidell, 1989).

Statistically significant differences resulted for only one of the composite variables, the number of sleep experiences experienced during the past year. A one-way ANOVA for this variable yielded $F(3,112) = 4.89, p < .01$. A priori comparisons indicated that the sexual abuse only group experienced significantly more dreams and nightmares (mean=63.10) during

the past year than the sexual and physical abuse group (mean=19.33) ($p<.01$).

TSC-33

Of the 117 subjects who participated in Phase II, one subject in the sexual abuse-only group failed to complete the TSC-33 inventory. Thus, a one-way ANOVA was performed on 116 cases. The analysis yielded $F(3,112)=3.96$, $p<.01$. Post-hoc tests conducted by means of Tukey's HSD test indicated that the sexual and physical abuse group (mean=34.11) scored significantly higher than the comparison group (mean=22.29) ($p<.01$), indicating that the sexual and physical abuse group experienced significantly more post-abuse symptomatology within the past two months than did the comparison group.

One hypothesis of the study stated that the sexual abuse group would experience more nightmares than the other groups. In order to test this hypothesis, one item from the TSC-33 which required that subjects select a category of frequency of nightmares experienced within the previous two months (never, occasionally, fairly often, and very often), was subjected to a chi-square analysis. The differences among the four groups were not statistically significant.

In summary, analysis of Phase II data resulted in statistically significant differences between the sexual abuse-only group and the sexual and physical abuse groups on the number of sleep experiences that the subject had within the past year as measured on the Dream/Nightmare Sleep History

TABLE 5

Summary of Phase II ANOVA Results

Variable	Group	n	Mean	S.D.	F
Age	S.A. only	30	19.57	1.63	n.s.
	P.A. only	30	20.57	4.31	
	Non-abused	38	19.37	1.26	
	S.A. & P.A.	19	21.32	5.41	
BDI	S.A. only	30	9.67	5.16	n.s.
	P.A. only	30	11.43	6.22	
	Non-abused	38	9.61	6.91	
	S.A. & P.A.	19	13.68	9.07	
TSC-33	S.A. only	29	25.83	9.96	3.96**
	P.A. only	30	26.20	12.04	
	Non-abused	38	22.29	10.39	
	S.A. & P.A.	19	34.11	17.81	
Freq of Sleep Experiences during past year	S.A. only	29	2.88	.76	n.s.
	P.A. only	30	2.93	.46	
	Non-abused	38	2.93	.85	
	S.A. & P.A.	19	3.35	2.32	
No of Sleep Experiences during past year	S.A. only	29	63.10	118.18	4.89**
	P.A. only	30	60.83	68.18	
	Non-abused	38	35.68	37.14	
	S.A. & P.A.	19	19.33	25.10	

**p<.01

TABLE 5 CONT.

Variable	Group	n	Mean	S.D.	F
Repetitive Sleep Experiences	S.A. only	29	.89	1.04	n.s.
	P.A. only	30	.81	1.35	
	Non-abused	38	.91	1.69	
	S.A. & P.A.	19	1.40	2.43	
Variation in Dream/Nm Ending	S.A. only	29	1.86	1.79	n.s.
	P.A. only	30	1.91	2.38	
	Non-abused	38	1.23	1.77	
	S.A. & P.A.	19	1.22	1.58	

Questionnaire. Analysis of the TSC-33 resulted in statistically significant differences between the sexual and physical abuse group and the comparison group. All other statistical tests performed on the data set were inconclusive. Table 5 presents a summary of descriptive statistics for Phase II variables.

Phase 3 Results

All subjects who participated in Phase II of the study consented to complete Phase III. Therefore, all 117 subjects received a Dream Diary at the end of the Phase II testing session with instructions to record all of their dreams and nightmares at home over the following 10 days, as well as instructions to complete the attached Worst Nightmare Report. Of the total 117 subjects who received the diary, 102 subjects subsequently returned it to the investigator for analysis. Separate analyses were performed for the contents of the diary and the Worst Nightmare Report and are presented accordingly. Prior to scoring the contents of the reports, inter-rater reliability of the scoring protocol was established. These results are presented first.

Inter-rater Reliability

A total of 27 diaries (26.5%) were scored by the primary investigator and also by a second independent rater. Pearson correlation coefficients were computed using 1-tailed tests of significance for each of the following categories: characters, objects, emotions, themes and violence. Overall,

interjudge reliability was excellent, with coefficients ranging from .89 to .96. Specifically, coefficients for each of the categories were: .96 for characters, .93 for objects, .91 for emotions, .89 for themes, and .94 for violence.

Incidence of Dream and Nightmare Occurrence

Prior to computing the ANOVAs, the data were screened by means of frequency distributions. One extremely high value was located in the comparison group on the number of reported nightmares. This value was reduced to one unit higher than the next highest value to minimize its influence, and was entered into the analysis, rather than deleted.

Two hypotheses of the study stated that the sexual abuse group would report a greater number of both dreams and nightmares than either the physically abused or comparison groups. In order to test these hypotheses, the total number of dreams and the total number of nightmares that were reported by the subjects in the diaries were each subjected to one-way ANOVAs (see Table 6). A priori comparisons were set up to contrast the sexual abuse-only group with each of the other 3 groups.

No statistically significant between-groups differences emerged for the number of nightmares reported, thus this hypothesis was not supported. However, the hypothesis for the total number of reported dreams was supported. The ANOVA yielded $F(3,98)=2.99$, $p<.05$. Contrasts indicated that the

TABLE 6

ANOVA Results for
Number of Dreams and Nightmares

Group	n	Mean	S.D.	F
<u>Number of Dreams</u>				
Sexual Abuse only	29	8.48	4.95	2.99*
Physical Abuse only	23	6.87	3.65	
Non-abused	34	6.88	3.67	
S.A.& P.A.	16	4.81	2.81	
<u>Number of Nightmares</u>				
Sexual Abuse only	29	.55	.83	n.s.
Physical Abuse only	23	.35	.71	
Non-abused	34	.41	1.02	
S.A.& P.A.	16	.63	1.26	

* $p < .05$

mean number of dreams reported by the sexual abuse-only group (8.48) was statistically significantly higher than the mean for the sexual and physical abuse group (4.81) at the 5% level of probability. The physical abuse-only and comparison groups experienced a similar number of dreams during the ten-day period (means=6.87 and 6.88 respectively), a frequency which was approximately midway between that of the other two groups.

Diary Content Analysis

The dream/nightmare features contained in the scoring criteria list were summed within categories and averaged over the number of dream/nightmare reports contained in the diaries to create 4 variables which were entered into a multiple analysis of variance. The intent of the MANOVA was to address the stated hypothesis that the sexual abuse group would report more of the specified features than the physical abuse-only or comparison groups. The 4 categories initially analyzed were characters, objects, emotions and themes. Log transformations were performed prior to computation of the MANOVA to improve the distributions of all variables, and for one case in the comparison group, the value of an extremely high score in the emotions category was reduced to minimize its influence.

Results of the multivariate test were non-significant ($p > .05$). However, in accordance with Tabachnick and Fidell (1989), a report on the significant univariate result for the variable "characters" is warranted, although caution must be

exercised in the interpretation of this finding. For the number of characters, which included friends, strangers, non-humans, snakes/worms, insects/spiders and animals, the univariate $F(12,392) = 3.18, p < .05$. Scrutiny of group means showed that the comparison group reported the highest average number of characters. As Table 7 illustrates, the mean number of characters reported per dream in the comparison group was 4.23 compared with the lowest group mean of 2.75 for the sexual and physical abuse group.

Worst Nightmare Content Analysis

The Worst Nightmare Report was completed by 87 of the 102 subjects who returned the diary. Only six subjects (6.9%) reported that their worst nightmare occurred within the ten-day study period: 3 subjects in the physical abuse-only group, 2 in the sexual abuse-only, and 1 in the sexual and physical abuse group. The categorization into groups for all reports was as follows: sexual abuse-only: 22 subjects; physical abuse-only: 23 subjects; comparison: 27 subjects; sexual and physical abuse: 15 subjects. The four composite variables were entered into a MANOVA computation (see Table 8).

Results of the MANOVA were statistically significant, selecting Wilk's Lambda, $F(12,212) = 2.21, p < .05$. Examination of the univariate tests of significance resulted in statistically significant between-group differences for the variables of emotions and themes. For the category of

TABLE 7

Summary of MANOVA Results for Diary Content

Category	Group	n	Mean	S.D.	F
Characters	S.A. only	28	3.69	1.53	3.18*
	P.A. only	24	3.17	1.63	
	Non-abused	34	4.23	2.68	
	S.A. & P.A.	16	2.75	1.48	
Objects	S.A. only	28	.34	.31	n.s.
	P.A. only	24	.29	.29	
	Non-abused	34	.31	.39	
	S.A. & P.A.	16	.43	.53	
Emotions	S.A. only	28	.31	.32	n.s.
	P.A. only	24	.34	.28	
	Non-abused	34	.17	.20	
	S.A. & P.A.	16	.32	.36	
Themes	S.A. only	28	1.31	.90	n.s.
	P.A. only	24	1.32	1.05	
	Non-abused	34	1.15	.61	
	S.A. & P.A.	16	1.20	.90	

* $p < .05$

emotions, $F(3,83)=4.83$, $p<.01$, and for themes, $F(3,83)=4.85$, $p<.01$. Post hoc tests, using Tukey's HSD test, were conducted to explore the nature of the differences among the groups for each of the categories. For the category of emotions, the worst nightmare of the sexual and physical abuse group contained significantly more expression of emotions on average (mean=1.00) than the comparison group (mean=.26). The sexual abuse-only and physical abuse-only groups expressed approximately the same number of emotions (means=.55 and .52 respectively), which was more than the comparison group, but less than the sexual and physical abuse group. With respect to themes reported, the sexual abuse-only group scored significantly higher on average (mean=4.41) than the comparison group (mean=2.07). The sexual and physical abuse group (mean=3.47), and the physical abuse-only group (mean=3.22) did not report as many themes as the sexual abuse-only group, but reported more than the comparison group.

In order to explore the nature of the specific themes and emotions contained in the Criteria List that were important in distinguishing the groups, one-way ANOVAs were computed for the emotions of helplessness/powerlessness, sadness, happiness, and fear. Anger, guilt and frustration were not reported by any subjects and were omitted from analysis. Similarly, the themes of positive sexual activity and fun/enjoyment, did not appear in any of the Worst Nightmare reports, hence they were also omitted. Thus, the following

TABLE 8
Summary of MANOVA Results for
Worst Nightmare Content

Category	Group	n	Mean	S.D.	F
Characters	S.A. only	22	3.00	2.49	n.s.
	P.A. only	23	3.26	3.21	
	Non-abused	27	2.70	1.58	
	S.A. & P.A.	15	2.47	2.03	
Objects	S.A. only	22	1.18	1.79	n.s.
	P.A. only	23	1.00	1.41	
	Non-abused	27	.67	1.00	
	S.A. & P.A.	15	.87	.99	
Emotions	S.A. only	22	.55	.74	4.83**
	P.A. only	23	.52	.51	
	Non-abused	27	.26	.45	
	S.A. & P.A.	15	1.00	.76	
Themes	S.A. only	22	4.41	3.02	4.85**
	P.A. only	23	3.22	2.04	
	Non-abused	27	2.07	1.04	
	S.A. & P.A.	15	3.47	2.47	

** $p < .01$

themes were analyzed: Alone/abandoned, dreamer chased/dreamer running, a presence, negative sexual activity, death of self, death of another, physical aggression, verbal aggression, injury and blood.

While it is recognized that analysis by means of a series of one-way ANOVAs does not permit a controlled family-wise alpha level, the data set failed to meet the assumption of homogeneity of variance-covariance necessary to conduct analysis using multivariate tests of significance. Therefore, the results of the analysis are presented solely for the interests of the reader, and for future research considerations.

Within the category of emotions, two significant findings emerged (See Table 9). The strongest between groups difference was found for expression of fear, with the sexual abuse-only and sexual and physical abuse group scoring higher (means=.27 and .27 respectively) than either the physical abuse-only group (mean=.17), or the comparison group which did not express any fear in their reports (mean=0). The second finding was that sadness was expressed more often in the Worst Nightmare report by the sexual and physical abuse group (mean=.27) than by the other three groups (means= .09 S.A. only; .04 P.A. only; .04 comparison).

With respect to the analysis performed to investigate specific themes which separated the groups, three themes achieved significance at the .05 level (see Table 10). The

TABLE 9
ANOVA Summary for
Emotions in Worst Nightmare

Sub-Category	Group	n	Mean	S.D.	F
Helplessness/ Powerlessness	S.A. only	22	.18	.39	n.s.
	P.A. only	23	.30	.47	
	Non-abused	27	.22	.42	
	S.A. & P.A.	15	.33	.49	
Sadness	S.A. only	22	.10	.29	2.46**
	P.A. only	23	.04	.21	
	Non-abused	27	.04	.19	
	S.A. & P.A.	15	.27	.46	
Happiness	S.A. only	22	.00	.00	n.s.
	P.A. only	23	.00	.00	
	Non-abused	27	.00	.00	
	S.A. & P.A.	15	.07	.26	
Fear	S.A. only	22	.27	.46	2.99*
	P.A. only	23	.17	.39	
	Non-abused	27	.00	.00	
	S.A. & P.A.	15	.27	.46	

* $p < .01$

** $p < .06$

TABLE 10
ANOVA Summary for
Themes in Worst Nightmare

Sub-Category Group		n	Mean	S.D.	F
Alone/ Abandoned	S.A. only	22	.14	.35	n.s.
	P.A. only	23	.22	.42	
	Non-abused	27	.15	.36	
	S.A. & P.A.	15	.20	.41	
Chasing/ Dreamer Running	S.A. only	22	.32	.48	n.s.
	P.A. only	23	.29	.50	
	Non-abused	27	.41	.50	
	S.A. & P.A.	15	.27	.46	
Presence	S.A. only	22	.00	.00	n.s.
	P.A. only	23	.00	.00	
	Non-abused	27	.04	.19	
	S.A. & P.A.	15	.07	.26	
Escape	S.A. only	22	.05	.21	n.s.
	P.A. only	23	.13	.34	
	Non-abused	27	.19	.40	
	S.A. & P.A.	15	.07	.26	
Negative Sexual Activity	S.A. only	22	.05	.21	n.s.
	P.A. only	23	.04	.21	
	Non-abused	27	.00	.00	
	S.A. & P.A.	15	.00	.00	
Death of Self	S.A. only	22	.14	.35	n.s.
	P.A. only	23	.17	.39	
	Non-abused	27	.15	.36	
	S.A. & P.A.	15	.20	.41	
Death of Another Person	S.A. only	22	.64	1.18	2.67*
	P.A. only	23	.13	.46	
	Non-abused	27	.19	.56	
	S.A. & P.A.	15	.67	.90	

TABLE 10 CONT.

Sub-Category Group		n	Mean	S.D.	F
Death of Animal	S.A. only	22	.00	.00	n.s.
	P.A. only	23	.04	.21	
	Non-abused	27	.00	.00	
	S.A. & P.A.	15	.00	.00	
Physical Aggression	S.A. only	22	1.32	1.29	3.65*
	P.A. only	23	.83	1.03	
	Non-abused	27	.48	.75	
	S.A. & P.A.	15	1.47	1.41	
Verbal Aggression	S.A. only	22	1.32	1.81	3.15*
	P.A. only	23	.91	1.28	
	Non-abused	27	.41	.57	
	S.A. & P.A.	15	.33	.62	
Injury	S.A. only	22	.36	.90	n.s.
	P.A. only	23	.30	.47	
	Non-abused	27	.07	.27	
	S.A. & P.A.	15	.27	.46	
Blood	S.A. only	22	.09	.29	n.s.
	P.A. only	23	.04	.21	
	Non-abused	27	.00	.00	
	S.A. & P.A.	15	.13	.35	

* $p < .05$

strongest relationship was found for physical aggression ($p=.01$), with the sexual and physical abuse and the sexual abuse-only groups manifesting more incidents of physical aggression in their Worst Nightmare report (means= 1.47 and 1.32 respectively) than the physical abuse-only group (mean=.83), or than the comparison group (mean=.48). The sexual abuse-only group reported significantly more incidents of verbal aggression (mean=1.32) than the physical abuse-only group (mean=.91), the comparison group (mean=.41), or than the sexual and physical abuse group (mean=.33). The third variable to appear important is death of a person other than the dreamer. The sexual and physical abuse group and the sexual abuse-only group reported more deaths of others (means=.64 and .67 respectively) than the comparison group (mean=.19) and more than the physical abuse-only group (mean=.13).

Density Calculations

As previous research in dream content has suggested (Bonato, 1990), when the length of a dream report is considered, differences between groups may disappear. In order to determine whether this may have accounted for the differences found in the Worst Nightmare report, density figures were computed by dividing the scores for each of the "emotions" and "themes" categories by the number of words contained in the report (see Table 11). The density figures were then subjected to a one-way ANOVA. The ANOVA results for

TABLE 11
Summary of ANOVA Statistics for
Density Scores - Worst Nightmare

Category	Group	n	Mean	S.D.	F
Themes	S.A. only	22	.05	.03	n.s.
	P.A. only	23	.07	.15	
	Non-abused	27	.02	.01	
	S.A. & P.A.	15	.05	.03	
Emotions	S.A. only	22	.006	.009	6.22**
	P.A. only	23	.009	.011	
	Non-abused	27	.003	.005	
	S.A. & P.A.	15	.017	.019	

** $p < .001$

"emotions" were statistically significant; $F(3,83)=6.22$, $p<.001$. Post-hoc tests revealed that the sexual and physical abuse group had significantly higher density scores for emotions (mean=.02) than the comparison group (mean=.003) or than the sexual abuse-only group (mean=.006). No statistically significant differences were found between the physical abuse-only group (mean=.009) and the other two groups. For density scores computed for "themes", there were no statistically significant differences between groups ($p>.05$).

A one-way ANOVA was also performed on the total number of words contained in the ten-day diary to determine whether this may have influenced the significance found for the number of characters. However, no statistically significant differences among the groups emerged for this factor.

Results of a Three Group Analysis

Because the initial study design called for three groups, a sexual abuse group, a physical abuse group, and a non-abused comparison group, the hypotheses were generated accordingly. Previous studies (Cuddy, 1990; Fernandez, 1990) have found that on a number of measures (for example, BDI scores and dream and nightmare frequency and repetitiveness) subjects who disclose both sexual and physical abuse appear to resemble sexual abuse-only subjects. However, preliminary statistics generated for these variables indicated that in the present sample, subjects who reported sexual and physical abuse

appeared quite distinct. For example, this group had higher BDI and TSC-33 scores, and reported fewer sleep experiences during the past year than either the sexual abuse-only or the physical abuse-only groups. Rather than eliminating these cases (19 of them), they were included in the primary analyses since the nature of this research was exploratory rather than confirmatory.

Subsequent to conducting the primary analyses which have been reported above, all analyses were rerun with the sexual and physical abuse group eliminated. For all statistical tests but one, results were inconclusive. A MANOVA carried out on the Worst Nightmare content reached statistical significance; $F(8,132)=2.00$, $p=.05$. Univariate results for the category "themes" yielded $F(2,69)=7.35$, $p<.001$. A one-way ANOVA performed on the density score computed for this category was non-significant. Therefore, it may be concluded that more of the themes contained in the criteria list were present in the worst nightmare of those women who reported sexual abuse, and that this finding is not due to length of report.

Summary of Results

The final section of this chapter provides a summary of the results of statistical tests which were performed on the data set, with attention focused on those results which pertain directly to a stated hypothesis. A summary of significant between groups differences for all phases appears in Table 12.

The first hypothesis stated that the sexually abused group would report a greater frequency of dreams than the physically abused or non-abused comparison group. Phase III results indicated that the sexual abuse-only group reported a significantly greater number of dreams than the sexual and physical abuse group ($p < .05$); however, pairwise comparisons between the sexual abuse-only group and each of the physical abuse-only and comparison groups failed to reach statistically significant levels. There was no support found in Phase III data for the hypothesis that the sexual abuse only group would report more nightmares than the physical abuse only group or than the comparison group. A composite variable composed of both dream and nightmare incidence during the past year, which was contained in the Dream/Nightmare Sleep History Questionnaire resulted in a significantly higher group mean for the sexual abuse-only group than the sexual and physical abuse group. This lends credence to the results obtained in Phase III, although it does not directly address the specific hypotheses. This issue will be elaborated in the discussion.

The second hypothesis of the study stated that the sexual abuse group would report a greater proportion of recurrent dreams and nightmares than the physical abuse-only group or than the comparison group. This hypothesis was not supported.

A final hypothesis of the study stated that the content of

TABLE 12
Summary of Significant
Between-Groups Analyses

Variable	df	MS	F
TSC-33	3,112	590.59	3.96**
Number of Sleep Experiences in Last Year	3,112	1.16	4.89**
Number of Dreams Reported	3,98	7.06	2.99*
Number of Characters Reported in Diaries	3,392	.03	3.18*
Emotions Expressed in Worst Nightmare	3,83	.366	4.83**
Themes Contained in Worst Nightmare	3,83	4.78	4.85**
Worst Nightmare Density Score for Emotions	3,83	.0008	6.22***

* p<.05
 ** p<.01
 *** p<.001

the dreams and nightmares of the sexual abuse group would differ from that of the physical abuse group and from that of the comparison group in that the sexual abuse group would exhibit more of the features contained in the Dream/Nightmare Content List. A statistically significant multivariate F emerged when the contents of the Worst Nightmare Report were analyzed, supporting this hypothesis. Pairwise contrasts indicated that the sexual abuse-only group manifested significantly more of the physical and verbal aggression themes contained in the feature list than the comparison group. The contrast between the sexual abuse-only group and the physical abuse-only group approached significance ($p=.07$). For emotions expressed in the Worst Nightmare Report, the sexual and physical abuse group scored significantly higher than the comparison group.

The contents of the ten-day diary were entered into a separate MANOVA, and although the multivariate F was non-significant, univariate tests indicated significant differences (which must be cautiously interpreted) for the category of "characters". Specifically, the comparison group reported more characters on average than the other three groups. Hence, the hypothesis that stated that the sexual abuse group would report more features contained in the Criteria List was not supported when the contents of the ten-day diary were analyzed.

A statistically significant finding emerged when the total

score on the TSC-33 was entered into a one-way ANOVA. The sexual and physical abuse group scored significantly higher on this inventory than the comparison group. This finding might be expected considering this instrument measures post-abuse symptomatology. No hypothesis was stated as the TSC-33 was included solely for exploratory purposes.

When analyses were conducted entering data for the sexual abuse-only, the physical abuse-only and the comparison groups, statistical significance emerged only for a MANOVA performed on the content of the Worst Nightmare Report, with a significant univariate F for the category of "themes". Post-hoc tests indicated that the sexual abuse group evidenced more of the criteria themes than the comparison group.

The next chapter presents a discussion of the findings, with particular attention to the fit with previous research findings. Perhaps more importantly, possible explanations for the failure of the study to produce expected results are offered.

CHAPTER 4

Discussion

The picture which emerges from the results of the present study is in some ways obscured by the complexity of both the sample at hand, and is further complicated by the subject under investigation. In part, this complexity in itself validates the need to conduct such research, so that the issue of sexual abuse and its aftermath is more clearly understood.

Additionally, extrapolating from the rate of self-report of sexual abuse found in the present study, a conservative estimate of the number of women at this university alone who are touched by this problem approaches 2000. Therefore, it is of paramount importance that research attempt to untangle the web of often-conflicting findings.

The ensuing discussion interprets the findings of the present study with reference to how well these findings merge with those of previous researchers; or conversely, how oppositional some of the present findings appear. Consideration is given to issues such as the credibility of reported rates of sexual and physical abuse, to methodological limitations, and to the sleep experiences of the women who participated. Finally, some conclusions have been extracted from the results of the study and are presented.

The Sample: The Credibility of Self-Report Rates

The rate of 17.25% for self-report of sexual abuse within

the present sample of women is somewhat lower than rates reported by researchers whose studies have drawn from university populations. For example, Cuddy (1990), who also used the Major Events Inventory to elicit this information reported an overall rate of 23.01% for the women. A rate of 38.24% was found in the pilot study (Fernandez,1990), which also used the Major Events Inventory. Briere and Runtz (1988) reported that approximately 15% of the university women in their study had experienced sexual contact with an older person before age 15. Briere and Runtz's figure of 15% may have been higher if they had asked about experiences after age 15, as the other studies did.

With respect to the present study's finding that 10.34% of the women disclosed physical abuse, only one comparable study was located. Most studies which have explored abuse have focused on either sexual abuse, or on physical abuse. Cuddy (1990) reported a rate of 13.17% for physical abuse which is slightly higher than the present finding. The pilot study was limited to women reporting sexual abuse only. Higher figures may have been obtained in the present study had physical abuse questions inquired about specific acts of abuse (for example, having been slapped, kicked, or punched), rather than asking about "physical abuse", which allowed subjects to define physical abuse for themselves. It may have been that some women experienced these abusive acts, but did not consider them to be physical abuse per se.

A probable explanation for the relatively low self-report rate for both sexual abuse and physical abuse may be found in the nature of the testing situation. In the present study, the Major Events Inventory was included in a package containing multiple, unrelated instruments, and was administered during a mass testing session conducted by the University's Psychology Department. It was noted by the investigator during the testing session, that students were sitting in large lecture halls in extremely close proximity to each other. It may have been that students were less likely to respond to the items pertaining to sexual and physical abuse because of this. It should be noted that during the pilot study, the Major Events was administered in a small group situation, where each subject was separated from all others by considerable space. It is quite likely that the greater anonymity afforded by this environment is more likely to encourage disclosure.

In order to assess the credibility of the qualities of the sexual abuse experiences that were reported, the figures from the present study were compared with those obtained by Cuddy (1990) and with those of the pilot study. Overall, there was general consensus of type of abuse (whether incestuous or extrafamilial), number of incidents and number of abusers. The most notable difference was that the present study had fewer cases of incest than the pilot study. Approximately 30% of the women in the present study who reported sexual abuse

identified an incestuous experience, whereas this figure was about 40% for the pilot study. Cuddy did not report the number of women who had experienced both incest and extrafamilial abuse, and it is not known whether her figure of 30% pertains to incest only, or whether it includes those women who experienced both types of abuse.

With respect to the age at which abuse occurred, almost 43% of the women in the present study experienced sexual abuse before the age of 14 only, and an additional 16% experienced sexual abuse both before and after the age of 14. This percentage is slightly greater than that for the Cuddy sample, which was about 35% and 15% for the two categories respectively.

A final comment to be made regarding the specifics of sexual abuse reported by the present sample addresses the age differential between the abuser and the abused. In almost 59% of reported incidents, the abuser was more than 5 years older than the abused. According to the definition of childhood sexual abuse advanced by Browne and Finkelhor (1986), sexual abuse is deemed "childhood" sexual abuse when the abused is less than 14 years of age at the time of abuse, and the perpetrator is more than 5 years older than the abused. Adopting these criteria, a total of 30 reported episodes in the present sample may be considered "childhood" sexual abuse cases.

The inclusion of a physical abuse group was for comparative

purposes, and was not in itself a subject under investigation. However, it is relevant to compare the self-report rates of physical abuse and the breakdown of the nature of the abuse to derive some feeling for the veracity of the figures. As noted above, 49 women (10.34%) reported physical abuse in the present study. Of this number, 34 (69.39%) cases involved repeated episodes of abuse. This percentage is approximately twice that reported by Cuddy. However, the breakdown of physical abuse by abuser was remarkably similar to Cuddy's description, with fathers and boyfriends accounting for over one-half of the offenders.

Methodological Considerations

Other than the type of testing situation used to elicit reports of sexual and physical abuse (which has been discussed above), several comments relating to the study's methodology are in order.

Sexual abuse vs. sexual and physical abuse: Based on the findings of the Cuddy study, it was anticipated that the group reporting both sexual and physical abuse would resemble the sexual abuse only group, rather than the physical abuse only group on measures of depression, of post-abuse symptomatology, and on variables contained in the Dream/Nightmare Sleep History Questionnaire. This would therefore warrant their inclusion in the sexual abuse group and simplify the analyses. However, in the present sample, this was clearly not the case. This group evidenced higher average depression scores and more

severe post-abuse symptomatology as measured by the TSC-33; this may be the result of the more traumatic backgrounds and experiences these women had. With respect to the number of sleep experiences during the past year which were extracted from Phase II data, the sexual and physical abuse group scored significantly lower than the sexual abuse-only group (in fact, this group scored considerably lower than all of the groups on this measure). Although this at first appears counter-intuitive, this finding may also speak to the extent of trauma which the individual has endured. As Gelinas (1983) and other proponents of a post-traumatic syndrome in sexual abuse cases have pointed out (Donaldson & Gardner, 1985; Lindberg & Distad, 1985; Siegel & Romig, 1990), defences necessitated by the overwhelming trauma of sexual abuse may result in repression of memories of the experience. Interpreting the low incidence of reported dreams and nightmares for the sexual and physical abuse group in this context, the present result might be expected. It is reasonable to postulate that these women have sustained considerable trauma, for close examination of the particulars of sexual abuse and physical abuse shows that this group reported more multiple episodes and abusers than the sexual abuse-only group, or than the physical abuse-only group, particularly for sexual abuse experiences. Nightmares, Gelinas postulates, arise involuntarily and are often triggered by some current event which in some way relates to the abuse experience. Given

this, and given the fact that these women are relatively young and have not reached many milestones reminiscent of their abuse (for example, all but two women were single and childless), it may be that their memories are, for the most part, still repressed to the extent that dream content is unable to be recalled upon awakening (Hefez, Metz & Lavie, 1987; Terr, 1983). The sexual abuse-only group, may experience more frequent recallable dreams because the experience of sexual abuse may not threaten the individual to the same extent as when it is paired with physical abuse. That is, it may be that the sexual abuse-only group has more positive experiences in their histories; experiences which may serve to offset the trauma of the sexual abuse. Thus the dream may be an attempt to work out, and overcome the psychological affects of sexual abuse. To extrapolate, Cartwright investigated the emotional information processing function of dreams in a sample of 30 women who had experienced divorce. Cartwright concluded "when the present self structure is threatened by the life event and there are no acceptable alternate memory schemas available for organizing the event...the emotion evoked slows the working through and the affect may remain overwhelming", (p.425). A discussion addressing differences between these groups in dream content will follow.

Overall, the results of this study mandate that future research into sexual abuse inquire into physical abuse as

well, for the aftermath may be quite different for those who have experienced both sexual and physical abuse.

Group Contamination: Whenever the researcher employs the method of self-reporting to elicit information, there is a risk of obtaining false reports. In the present study, self-reports of sexual and physical abuse were the basis of group formation; therefore careful consideration must be given to the problem of false negatives (those who do not report abuse but have in fact experienced it), and to false positives (those who report they have experienced abuse but in fact, have not). The overall rates of reporting of abuse have been discussed above, hence no reference will be made to them in the present context.

It may be that the comparison group contained some subjects who had experienced either sexual or physical abuse. One indication that this problem may have occurred is the scores on both the BDI and on the TSC-33. The mean score for depression for the non-abuse group was 9.61, and is somewhat higher than that reported in the Cuddy study (8.62), or than that found in the pilot study (6.83). It may have been that the timing of Phase II was instrumental in a general elevation of depression levels. The testing session was conducted just prior to the end of the first term, and many of these women had several exams and papers to write. However, this seems unlikely in view of the fact that both the sexual abuse-only group and the physical abuse-only group had lower mean scores

than were expected. An alternative explanation is that the non-abuse group in this sample was simply a more depressed group than non-abuse groups in other studies.

Considered by itself, a slightly elevated depression score does not appear meaningful. However, when consideration is given to the level of symptomatology as measured on the TSC-33, it seems possible that the non-abuse group does contain some false negatives. The mean score for this group on the TSC-33 (22.29) is considerably higher than has been reported elsewhere. For example, Briere and Runtz (1989) summarized the average group scores for 2 studies conducted with clinical samples, 1 study of community women, and one study of university women. For both the community women and the university women, non-abused comparison group means were about 16. In fact, the mean score for the non-abuse group in the present sample falls midway between Briere and Runtz's university group (19.85) and community group (23.22) means for the sexually abused women in their samples. Further, in the present study, 20 individuals in the non-abuse group scored above the mean of the sexual abuse-only group. This number appears somewhat high to have occurred by chance. Also indicative of false negatives in the non-abuse group is that a few women in this group had extreme scores on both the BDI and the TSC-33. However, none of these cases qualified as outliers using the criteria of plus or minus 3 standard deviation units, and could not justifiably be deleted from the

analysis. The effect of their inclusion in the data analysis was to increase error terms, making it more difficult to achieve statistical significance, and resulting in conservative findings.

With respect to false positives, the data set did not provide any indication that this may have occurred. Further, no reasonable explanation is forthcoming as to why an individual might falsely report sexual abuse, other than as an attention-seeking behaviour. Considering that the information was elicited during Mass Testing, and was not connected to the study for individuals, this reason seems improbable. In the event that a false positive was present in the study, the effect of this would be similar to that for false negatives, as explained above, and would have made it more unlikely that statistically significant results would be achieved.

The Use of a Dream Diary: The results of the analysis of the Dream Diaries were inconclusive, leading to speculation that the energy expended in collection of reports, scoring, and performing statistical tests is not justified in studies of this type. While there is no doubt that the Worst Nightmare Report elicits the most dramatic information, the lack of significant findings from the diaries may be more a function of the scoring protocol than of the diary format. It was clear to the investigator when perusing the reports, that the tone of the dreams differed by group, yet this quality was not captured by the content analysis. The dreams of the abused

subjects had a dreary, dismal flavour, while the dreams of the non-abused subjects appeared to evoke a more positive feeling in the reader. The following excerpts illustrate this phenomena:

"I was in a dance bar. The inside had no

windows, just cement block walls. I was

with two friends..." (subject from S.A. only group)

The description of a dance bar (a place people usually go for enjoyment) does not convey pleasure, happiness, or a feeling that the dreamer was having fun. Rather, the cement block walls and windowlessness of the room paint a cold and dismal picture of the setting. The depressive tone of this report is magnified by the contrast between the anticipated enjoyment of dancing and the bleakness of the surroundings.

The second excerpt which also illustrates this phenomena is taken from a report by a subject in the sexual and physical abuse group. This subject reported that later in the day following her dream, she identified the object in her dream as her "good luck charm" which she always carries.

"It was this orange object - looked like a

large rock, and slowly it just kept on

getting greyer in colour."

In the dream report itself, the transformation of the colour orange (a vibrant colour often associated with the sun and life) to grey, which is not a true colour, conveys similar feelings of despair and pessimism. The subject's realization

that this object was her good luck charm leads the reader to speculate that the dream may be symbolic for her view of her own life, or for her view of her sense of self, beginning brightly and gradually deteriorating to something non-descript.

The difficulty in attempting to capture this type of phenomena while retaining experimental soundness is considerable. To rate dreams on a "mood", or "tone" scale injects a certain subjectivity into the analysis which may be criticized as being methodologically weak. In contrast, scoring dream content by counting incidences of pre-specified features represents a more objective approach, one less likely to suffer from investigator bias, or interpretation. However, if discrete categories were developed, if raters were adequately trained in scoring, and high inter-rater reliability were established, this approach may be a fruitful and valid way to retain these qualities.

In addition to providing a more accurate number of dream experiences, the use of a diary in this type of study also serves as a reliability check for incidence as reported retrospectively in the Dream/Nightmare Sleep History Questionnaire. Wood and Bootzin (1990) studied the prevalence of nightmares in a sample of 220 university students using both retrospective self-reports and daily logs. The authors maintain that "the self-reports greatly underestimated the absolute level of nightmare frequency among subjects" (Wood &

Bootzin, p.67).

Additionally, the use of diaries may serve to cue subjects' memories. Thus, they may recall more of their experiences, or they may recall the contents more clearly when they know they will be required to record it in writing. For example, several subjects in the present study expressed surprise at the number of dreams they actually had.

Dream and Nightmare Content

Analysis of the content of subjects' reports of their dreams and nightmares represented the most challenging and interesting aspect of the study. As previously set forth in the method chapter, the list of scoring criteria was compiled after reviewing the literature, the bulk of which were clinical reports. Those aspects which had appeared consistently, such as snakes and worms, helplessness/powerlessness, blood, and so forth, were selected for analysis. Additionally, those features which reached statistical significance in the Cuddy study (1990), such as weapons, injury, death, body anatomy, sadness and so forth were also selected. The pilot study validated the selection of a number of these items, but failed to produce statistical significance on many of the variables; this shortcoming was attributed at the time to a small sample size. It was anticipated that most of the features contained in the criteria list would reach statistical significance when a larger sample was used, and the failure of analytic tests to

reach these levels was unexpected. There are a number of possible factors which may have contributed to this result.

First, the possibility that the control group contained false positives gains some support from the content analysis. The reader will recall that several scores in the control group were reduced because of extreme values. Although reducing the value of an outlying score is an appropriate treatment for such cases, the value exerts an influence nevertheless, and inflates the group mean for the variable. Thus, statistical tests become more conservative. More importantly perhaps, as Table 10 indicates, some Worst Nightmare Reports for control group subjects evidenced the theme of "a presence". This theme has appeared solely in the reports of women disclosing past sexual abuse, and in particular, in nightmares of women who report a single incidence of abuse (Cuddy, 1990; Fernandez, 1990). It may therefore be necessary that samples be uncontaminated. Considering the difficulty in validating the reports of university women, most of whom have probably not filed official reports of the unwanted activity, the researcher's only assurance that groups are uncontaminated rests in control of the testing situation.

Consideration must also be given to the number of subjects in the groups. Larger groups may be needed to bring out significant statistical differences in dream content among them. However, although the number of subjects in each group

was smaller than optimal, when the number of reports are considered (i.e. over 700 dreams were entered into the analysis, and there were 87 Worst Nightmare reports), it does not seem likely that paucity of data was a major obstacle. The volume of dream reports but the lack of statistically significant differences among the groups suggests one of two possibilities. First, that extracting content differences between groups requires a fuller criteria list; for example, characters might be further categorized. It was noted in the present study, that many subjects reported T.V. or movie villains in their dreams. The Criteria list developed for this study did not incorporate this feature, resulting in such characters being classified as friends since the distinction between friends and strangers was based on familiarity to the dreamer. Additionally, in many reports, the dreamer reported feeling "anxious", "uptight", or "bad". A more inclusive emotional list would allow more of these features to be captured. The category of "themes" could be expanded to include some which appeared frequently in the reports of the present sample; themes such as stormy or violent weather, dreamer travelling, and settings in the past.

Second, it may be that the differences between women reporting sexual abuse and those who do not report abuse are not apparent in the features of everyday dreams, but only emerge in their worst nightmares. Differences between groups may be more a function of the tone of the dream, as discussed

previously, rather than of specific content.

It is worthy of note that several of the subjects who reported sexual abuse reported that they were unable to recall their dreams. To illustrate, one subject in the sexual abuse-only group reported that she had many nightmares over the ten-day period and had been awakened by them. However, she was unable to recall the contents in the morning, but remembered that the nightmares had related to "the trauma of my childhood". Similarly, four of the six subjects in the sexual abuse-only group who did not complete a Worst Nightmare Report stated that they could not remember it; one subject reported that thinking about her worst nightmare caused her distress and therefore, she did not wish to retrieve the nightmare from memory, while one subject merely left the page blank and offered no reason for doing so. While a similar number of women in the non-abused comparison group failed to complete the Worst Nightmare Report, three of the subjects stated that they had never had a nightmare in their life. This is in direct contrast to the experiences of the sexual abuse group. The failure of the women who reported sexual abuse to recall their worst nightmare also gives support to the notion that experiences which call forth memories of their abuse may be repressed by those who are unable to psychologically adjust to their abusive experiences. The following report was provided by a subject in the sexual and physical abuse group and illustrates that some women may be

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aware that they have repressed unpleasant memories.

"My worst nightmare isn't something that I can describe. It is something that I can feel. I'll recognize it only when it happens. I remember not being able to sleep when I was younger, like 6 or 7, or waking up feeling terrified, scared and I cried once. As I got older, I stopped having them. I haven't had one since and I honestly don't know what they're about. Either I just don't remember or I'm not letting myself remember."

Finally, some general observations regarding content were made during scoring of the diaries which may be worthy of future consideration. The dreams of subjects reporting any kind of abuse (either sexual or physical, or both) appeared to lack descriptions of colour, with the exception of red. In contrast, several of the subjects in the non-abused comparison group described clothing, jewellery, and furniture with considerable colour detail. While this may be particular to the sample at hand, it is also possible that some women who have endured sexual or physical abuse view the world as colourless and devoid of vibrancy. Alternatively, the lack of colour may suggest a deadness of affect, or a chronic depressive state often seen in those who feel they have no control over the events in their lives. Finkelhor (1987) discusses nightmares, sleep problems, and a lack of affect as part of a powerlessness dynamic. He believes this dynamic

results from the individual's frustration at having been impaired in his/her ability to protect him/herself from abuse. An excerpt, taken from the report of a subject in the non-abused comparison group, contrasts with the dance bar setting reported by a subject in the sexual abuse-only group and described previously. This excerpt illustrates the description of colour:

"I was sitting in this very posh restaurant. It was beautiful. There were skylights all through it, one wall was all glass and so there was a beautiful view of a park with a stream and trees all over. Inside the restaurant there were green plants hanging everywhere, and small trees like grapefruit and orange trees all around. These small trees had miniature lights, white and green on each tree. There seemed to be so much light-it was so bright. I was really warm and everyone kept complimenting me on what I was wearing and I just kept saying - Well, I really feel comfortable, it's either my clothes or the lights..."

A second observation of interest is that often, the dreams of the women who reported abuse took place in the past, or involved people whom the dreamer had not seen for many years. This was most evident in the sexual and physical abuse group and often was accompanied by expressions of sadness or anger. The following excerpt from the dream of a woman disclosing both sexual and physical abuse illustrates this phenomenon:

"I was with a couple of friends (I don't remember if they even said anything - I have a feeling they were friends I grew up with) - anyways, I was in the backyard of my next door neighbours - I was looking through their fence at the house next door to theirs where there was a bunch of kids swimming. I was very sad, upset with these kids for having such a good time. I don't know if I said anything to them though."

To sum up, despite the absence of statistical significance in the diaries, and in the categories of characters and objects for the Worst Nightmare report, there appear to be discriminating elements evident in the dreams and nightmares of those women who have reported sexual abuse. In a global sense, results of the content analysis produced results in the projected direction. That is, the sexual abuse only group manifested more of the specified features than the other groups. Eliminating positive features such as friends, happiness and fun/enjoyment from the criteria list may help delineate the distinctive qualities of the dreams and nightmares of those women who have experienced sexual abuse.

Summary

As the discussion has indicated, there are a host of factors complicating this type of research, some of which may have contributed to the results of the present study. Contaminated groups represent the most difficult dilemma to resolve, and exert considerable influence on results. It is concluded from

this study, and strongly recommended for future research, that obtaining information pertaining to sexual and physical abuse be done in a small group format. Results from the pilot study, which utilized this strategy, indicated that the Major Events Inventory was an efficacious instrument if administered in this manner.

The collection of dream reports through the use of a take-home diary was believed to be an enhancement of the Cuddy study. Although it is regrettable that more statistically significant findings did not emerge from analysis of them, the investigator maintains that diaries are a valuable tool in eliciting accurate measures of dream and nightmare frequency, and also serve as a reliability check for subjects' retrospective reports of their dream and nightmare experiences. Further, a diary, in addition to providing content for analysis, helps encourage complete and honest dream reporting by removing the pressure that may accompany having to recall a dream or nightmare from memory during a testing situation. Finally, in their entirety, dream diaries may provide valuable insight into subtle dream elements such as mood or tone. A more thorough scrutiny of dream reports may permit guidance for future dream studies in abused populations through elimination and selection of scorable content.

It may be concluded from the study that when the content of worst nightmares is examined, women who have reported sexual

abuse histories exhibit more fear and sadness, more death of others, and more physical and verbal aggression in their reports than their non-abused counterparts. Content analysis has also illuminated the need to consider the combination of sexual and physical abuse in studies of sexually abused women, for differences in expressed emotions appear to distinguish these groups.

CHAPTER 5

Conclusion

The present research project serves to illustrate the complexity of the many facets of sexual abuse, and the difficulty in conducting an empirically sound study. Nevertheless, these facts do not absolve the researcher of the responsibility to undertake such projects, for it is only through research that our knowledge will expand. Clinical reports are replete with testimonies stressing the need for clinicians to identify and treat sexual abuse histories in women presenting for treatment of post-abuse symptomatology. Nightmares have been consistently cited in clinical reports of sexual abuse as a unique part of the post-abuse aftermath. The agenda for researchers, then, is to refine methodology and to provide a foundation from which clinicians are better able to utilize knowledge of sleep mentations as a diagnostic aid. It is in this spirit that the present study was undertaken.

In bringing this project to fruition, it has become apparent to the investigator that methodological improvements incorporated into future studies may work toward solidifying conclusions about dream and nightmare occurrences in a sexually abused population. The concluding section of this thesis sets forth methodological issues which may help to guide future studies in this area.

The need to inquire about a history of physical abuse when

studying a sexually abused population cannot be overstated. The present study suggests that dream and nightmare patterns in women who have experienced both sexual and physical abuse exhibit distinct differences from women who have experienced sexual abuse only. Alternately, studies investigating past physical abuse must also inquire into sexual abuse histories.

The present study has shown the need for the researcher to take every measure possible to ensure that subjects disclose past episodes of sexual and physical abuse honestly and accurately. The small group testing situation utilized in the pilot study appeared to be a more successful strategy for administration of pencil and paper inventories than a mass testing session. At the conclusion of the subjects' involvement with the researcher, many of the women indicated that they were highly supportive of research into the area of sexual abuse. Further, it was expressed by many of the women that they felt satisfied at having contributed to the project. A possible contribution to this positive attitude may have been the three month telephone follow-up. Most women were pleased that their psychological state was important to the researcher. Therefore, it is highly recommended that future studies of sexual and physical abuse incorporate a delayed follow-up debriefing.

The use of the TSC-33 in the present study was solely exploratory. To date, few studies of non-clinical populations have administered it, thus post-abuse symptomatology in a

relatively well-functioning group has not been adequately assessed. It would also be of interest in future dream and nightmare studies of sexually abused and physically abused individuals, to correlate TSC-33 scores with dream and nightmare variables. A low correlation may indicate unique coping strategies that individuals have adopted in order to put past sexual abuse behind them and continue with their lives. That is, it may be that the psychological effects of sexual abuse are expressed by somatization for some women, while for others, the occurrence of dreams and nightmares allows their waking mind to be free of memories, and still others may have resolved the issue of sexual abuse and are well-functioning individuals.

Future studies of this nature may help to clarify frequency and content issues by examining dream and nightmare variables along different dimensions of abuse. For example, one might compare the dreams and nightmares of individuals who report a single episode of abuse with those who report multiple occurrences. Similarly, abuse may be categorized according to the age at which it occurred, or according to whether abuse was incestuous or extrafamilial. Other studies might contrast the dreams and nightmares of sexually abused individuals with those experienced by a group reporting past traumas of a different nature. For example, the investigator noted from reports contained in the Major Events Inventory, that certain categories were frequently checked by subjects: "witnessing

violence against others outside your home while growing up", "major physical injury", "death of a nuclear family member (parents or siblings)", and "being robbed or mugged", to name but a few. Such studies may help to discriminate the effects of sexual abuse from those of other types of trauma.

A final area which would benefit from methodological refinement is the scoring of dream and nightmare content. Much of the richness of these reports fails to be captured by counting written features alone. A mood or tone rating score, assigned by the investigator(s) may help to provide a measure of this quality. Experimental rigidity need not be sacrificed if raters were adequately trained on the rating system. Establishing good inter-rater reliability would also maintain experimental integrity. Such a rating system might be easily incorporated into other dream study areas.

Concluding Remarks

The problem of sexual abuse has received increased attention in recent years, both from the public media and from mental health professionals. In part, this has helped society to understand both the magnitude of the problem, and the need to work toward its eradication. For clinicians, the task is to recognize and alleviate psychological distress for those individuals whose histories include sexual abuse. The researcher's mandate is to continue to conduct empirically sound studies, to provide the clinician with tools to effectively carry out his/her task. To this end, the study of

dreams and nightmares represent a most promising avenue of inquiry.

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Appendix A

INTRODUCTION

The purpose of this study is to compare the experience of dreaming with that of nightmares. More specifically, I am interested in determining whether certain types of life experiences lead a person to have more nightmares than dreams and vice versa. I am also interested in determining whether the timing of an event, that is, whether something occurred in childhood, adolescence or adulthood has a bearing on the pattern of dreaming and nightmares that one has.

In this study, you may decide for yourself whether an experience is a dream or a nightmare. However, nightmares are different from night terrors. Night terrors usually occur in the first hour or two of the night and the person experiencing one usually awakens in a great state of panic but is unable to recall a dream. This study does not focus on night terrors; I'm more interested in a nightmare or dream that can be remembered.

Appendix B
INFORMED CONSENT

Investigator: Marcia E. Fernandez, B.A., Carleton
Faculty Advisor: Dr. Susan Painter, Professor of
Psychology, Carleton University. (788-2653)
Chair of Ethics Committee: Dr. C. Herdman (788-2689)
Chair of Department: Dr. W. Jones (788-2648)

I, the undersigned, agree to participate in this research project about dreams and nightmares. I will complete the questionnaires provided and return them to the examiner. I will also return this Consent Form, signed, either separately or with the questionnaires.

I understand that all material will be kept in the strictest confidence and will be used for research purposes only. I understand that my participation is entirely voluntary, that I may refuse to answer any questions that I do not wish to answer, and that I may withdraw from the study at any time.

NAME: _____

DATE: _____

SIGNATURE: _____

Appendix C

BIOGRAPHICAL QUESTIONNAIRE

1. Sex: _____

2. Age: _____

3. Marital Status: _____

4. Have you experienced a dream or a nightmare in anticipation of participating in this study? Please check one response.

(1) I have had a dream in anticipation. _____

(2) I have had a nightmare in anticipation. _____

(3) I have not had a dream or a nightmare. _____

Appendix D

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

- 1 0 I do not feel sad.
 1 I feel sad.
 2 I am sad all the time and I can't snap out of it.
 3 I am so sad or unhappy that I can't stand it.
- 2 0 I am not particularly discouraged about the future.
 1 I feel discouraged about the future.
 2 I feel I have nothing to look forward to.
 3 I feel that the future is hopeless and that things cannot improve.
- 3 0 I do not feel like a failure
 1 I feel I have failed more than the average person.
 2 As I look back on my life, all I can see is a lot of failures.
 3 I feel I am a complete failure as a person.
- 4 0 I get as much satisfaction out of things as I used to.
 1 I don't enjoy things the way I used to.
 2 I don't get real satisfaction out of anything anymore.
 3 I am dissatisfied or bored with everything.
- 5 0 I don't feel particularly guilty.
 1 I feel guilty a good part of the time.
 2 I feel quite guilty most of the time.
 3 I feel guilty all of the time.
- 6 0 I don't feel I am being punished.
 1 I feel I may be punished.
 2 I expect to be punished.
 3 I feel I am being punished.
- 7 0 I don't feel disappointed in myself.
 1 I am disappointed in myself.
 2 I am disgusted with myself.
 3 I hate myself.

- 8 0 I don't feel I am any worse than anybody else.
 1 I am critical of myself for my weaknesses
 or mistakes.
 2 I blame myself all the time for my faults.
 3 I blame myself for everything bad that happens.
- 9 0 I don't have any thoughts of killing myself
 1 I have thoughts of killing myself, but I
 would not carry them out.
 2 I would like to kill myself.
 3 I would kill myself if I had the chance.
- 10 0 I don't cry any more than usual.
 1 I cry more now than I used to.
 2 I cry all the time now.
 3 I used to be able to cry, but now I can't cry
 even though I want to.
- 11 0 I am no more irritated now than I ever am.
 1 I get annoyed or irritated more easily than
 I used to.
 2 I feel irritated all the time now.
 3 I don't get irritated at all by the things
 that used to irritate me.
- 12 0 I have not lost interest in other people.
 1 I am less interested in other people than
 I used to be.
 2 I have lost most of my interest in other people.
 3 I have lost all of my interest in other people.
- 13 0 I make decisions about as well as I ever could.
 1 I put off making decisions more than I used to.
 2 I have greater difficulty in making decisions
 than before.
 3 I can't make decisions at all anymore.
- 14 0 I don't feel I look any worse than I used to.
 1 I am worried that I am looking old or unattractive.
 2 I feel that there are permanent changes in
 my appearance that make me look unattractive.
 3 I believe that I look ugly.
- 15 0 I can work about as well as before.
 1 It takes an extra effort to get started
 at doing something.
 2 I have to push myself very hard to do anything.
 3 I can't do any work at all.

- 16 0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.
- 17 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

- 18 0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

- 19 0 I haven't lost much weight, if any, lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.

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

- 20 0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains, or upset stomach, or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think about anything else.
- 21 0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

DREAM/NIGHTMARE/SLEEP QUESTIONNAIRE

The following questions are designed to obtain information about people who have dreams and nightmares. Please complete the questionnaire as accurately as you can.

When answering the questions, please circle the most appropriate location on the scales. (i.e. question #3)

Please indicate your answer to questions offering a series of possible answers by placing a checkmark in the appropriate blank space. (i.e. question # 1)

Please do not skip any questions.

1. Please indicate how much sleep you get during an average night.

☐ 5.0 hours
☐ 5.5 hours
☐ 6.0 hours
☐ 6.5 hours
☐ 7.0 hours
☐ 7.5 hours
☐ 8.0 hours
☐ 8.5 hours
☐ 9.0 hours or more

2. During an average month, how many times do you wake up in the morning recalling any kind of dream? Check your response.

☐ 0 times (never recall dreams)
☐ 1 to 3 times per month
☐ 4 to 10 times per month
☐ 11 to 20 times per month
☐ 21 to 25 times per month
☐ 26 times per month or more

3. Some people report that their amount of dream recall is fairly stable. That is, over the past few years, their amount of dream recall from week to week has not changed very much. In contrast, other people find that there is a great deal of variability in their dream recall; sometimes they have weeks or months without remembering any dreams and at other times, they may remember more than 1 dream a night. How variable is your dream recall?

: ————— :
 1 2 3 4 5 6 7
 extremely somewhat not at all
 variable variable variable

10. As an adolescent, how often did you experience DREAMS?
 _____ 0 times (never)
 _____ 1 to 2 times per year (very seldom)
 _____ 3 to 12 times per year (up to once a month)
 _____ 2 to 5 times per month (up to once a week)
 _____ once a week or more
11. As a child (pre-adolescent), how often did you experience NIGHTMARES?
 _____ 0 times (never)
 _____ 1 to 2 times per year (very seldom)
 _____ 3 to 12 times per year (up to once a month)
 _____ 2 to 5 times per month (up to once a week)
 _____ once a week or more
12. As a child, (pre-adolescent), how often did you experience NIGHT TERRORS?
 _____ 0 times (never)
 _____ 1 to 2 times per year (very seldom)
 _____ 3 to 12 times per year (up to once a month)
 _____ 2 to 5 times per month (up to once a week)
 _____ once a week or more
13. As a child (pre-adolescent), how often did you experience DREAMS?
 _____ 0 times (never)
 _____ 1 to 2 times per year (very seldom)
 _____ 3 to 12 times per year (up to once a month)
 _____ 2 to 5 times per month (up to once a week)
 _____ once a week or more
14. In the past year, approximately how many NIGHTMARES have you had? _____
15. In the past year, approximately how many NIGHT TERRORS have you had? _____
16. In the past year, approximately how many DREAMS have you had? _____
17. Have you ever experienced the same nightmare over and over again?
 YES _____ NO _____
18. Have you ever experienced the same dream over and over again?
 YES _____ NO _____
- 19.a) In the past year, have you had repetitive nightmares?
 YES _____ NO _____
- b) If yes, how many different nightmares are repetitive?

20. In the past year, how often have you experienced variations of the same nightmare? (i.e. different endings) _____ times

21. When you awaken from a nightmare these days, does it take you a longer time to fall back asleep as compared to times when you wake up for no apparent reason and then try to go back to sleep?

:	:	:	:	:	:	:
1	2	3	4	5	6	7
it never				it always		
takes longer				takes longer		

22.a) In the past year, have you had repetitive dreams?

YES _____ NO _____

b) If yes, how many different dreams are repetitive?

23. In the past year, how often have you experienced variations of the same dream? (i.e. different endings) _____ times

23. When you awaken from a dream these days, does it take you a longer time to fall back asleep as compared to times when you wake up for no apparent reason and then try to go back to sleep?

:	:	:	:	:	:	:
1	2	3	4	5	6	7
it never				it always		
takes longer				takes longer		

Appendix F

How often have you experienced each of the following in the last two months?

	Never	Occasionally	Fairly often	Very often
1) Insomnia (trouble getting to sleep)	0	1	2	3
2) Restless sleep	0	1	2	3
3) Nightmares	0	1	2	3
4) Waking up early in the morning and can't get back to sleep	0	1	2	3
5) Weight loss (without dieting)	0	1	2	3
6) Feeling isolated from others	0	1	2	3
7) Loneliness	0	1	2	3
8) Low sex drive	0	1	2	3
9) Sadness	0	1	2	3
10) "Flashbacks" (sudden, vivid, disracting memories)	0	1	2	3
11) "Spacing out" (going away in your mind)	0	1	2	3
12) Headaches	0	1	2	3
13) Stomach problems	0	1	2	3
14) Uncontrollable crying	0	1	2	3
15) Anxiety attacks	0	1	2	3
16) Trouble controlling temper	0	1	2	3
17) Trouble getting along with others	0	1	2	3
18) Dizziness	0	1	2	3
19) Passing out	0	1	2	3
20) Desire to physically hurt yourself	0	1	2	3

21) . Desire to physically hurt others	0	1	2	3
22) Sexual problems	0	1	2	3
23) Sexual overactivity	0	1	2	3
24) Fear of men	0	1	2	3
25) Fear of women	0	1	2	3
26) Unnecessary or over-frequent washing	0	1	2	3
27) Feelings of inferiority	0	1	2	3
28) Feelings of guilt	0	1	2	3
29) Feelings that things are "unreal"	0	1	2	3
30) Memory problems	0	1	2	3
31) Feelings that you are not always in your body	0	1	2	3
32) Feeling tense all the time	0	1	2	3
33) Having trouble breathing	0	1	2	3

Appendix G

Major Events Inventory

The following is a list of "major events" that can occur in life. Please check off all the ones that you have experienced. Some items allow for more than one response - again please check off all the ones that apply to you.

1. ☐ Engagement or marriage
2. ☐ Major surgery
3. ☐ Minor surgery
4. ☐ Major lottery prize win
- Physical abuse BEFORE age 16:
 5. ☐ Single event
BY: ☐ mother ☐ father ☐ brother ☐ sister
☐ boyfriend ☐ girlfriend ☐ other ☐ peer
 6. ☐ Repeated event
BY: ☐ mother ☐ father ☐ brother ☐ sister
☐ boyfriend ☐ girlfriend ☐ other ☐ peer
- Physical abuse age 16 OR LATER:
 7. ☐ Single event
BY: ☐ mother ☐ father ☐ brother ☐ sister
☐ boyfriend ☐ girlfriend ☐ other ☐ spouse
 8. ☐ Repeated event
BY: ☐ mother ☐ father ☐ brother ☐ sister
☐ boyfriend ☐ girlfriend ☐ other ☐ spouse
9. ☐ Desired pregnancy
10. ☐ Undesired pregnancy
11. ☐ Kidnapped
12. ☐ Death of a friend
13. ☐ Death of a nuclear family member (parents or siblings)
14. ☐ Death of other relative
15. ☐ Winning a scholarship or other major academic award
16. ☐ Being in a serious car accident
17. ☐ Being in a minor car accident

Unwanted sexual activity BEFORE age 14 with someone 5 years (or more) older than yourself.

18. ☐ Single event
 BY: ☐ parent ☐ friend ☐ stranger
 ☐ relative ☐ acquaintance ☐ don't remember
19. ☐ Repeated event
 BY: ☐ parent ☐ friend ☐ stranger
 ☐ relative ☐ acquaintance ☐ don't remember

Unwanted sexual activity BEFORE age 14 with someone less than 5 years older than yourself.

20. ☐ Single event
 BY: ☐ friend ☐ stranger ☐ relative
 ☐ acquaintance ☐ don't remember
21. ☐ Repeated event
 BY: ☐ friend ☐ stranger ☐ relative
 ☐ acquaintance ☐ don't remember

Unwanted sexual activity age 14 OR LATER with someone 5 years (or more) older than yourself.

22. ☐ Single event
 BY: ☐ parent ☐ friend ☐ stranger
 ☐ relative ☐ acquaintance ☐ don't remember
23. ☐ Repeated event
 BY: ☐ parent ☐ friend ☐ stranger
 ☐ relative ☐ acquaintance ☐ don't remember

Unwanted sexual activity age 14 OR LATER with someone less than 5 years older than yourself.

24. ☐ Single event
 BY: ☐ friend ☐ stranger ☐ relative
 ☐ acquaintance ☐ don't remember
25. ☐ Repeated event BY:
 BY: ☐ friend ☐ stranger ☐ relative
 ☐ acquaintance ☐ don't remember

26. ☐ Taking a "trip of a lifetime"

27. ☐ Being in a fire

28. ☐ Your home being burned down

29. ☐ Being robbed or mugged

30. ☐ Alcoholism in your family when growing up

31. ☐ Alcoholism in your family now

32. ☐ Winning an athletic event

33. ☐ Winning other public award

34. ☐ Separation/divorce of parents as a child
35. ☐ Separation/divorce of parents as an adult
36. ☐ Separation/divorce of self

37. ☐ Major physical illness
38. ☐ Major physical injury

39. ☐ Physical disability
40. ☐ Learning disability

41. ☐ Being arrested

42. ☐ Emotional abuse as a child:
BY: ☐mother ☐father ☐other

43. ☐ Emotional abuse as an adolescent:
BY: ☐mother ☐father ☐other
☐girlfriend ☐boyfriend

44. ☐ Emotional abuse as an adult:
BY: ☐mother ☐father ☐spouse
☐girlfriend ☐boyfriend ☐other

45. ☐ Witnessing violence against others in your home
while growing up

46. ☐ Witnessing violence against others outside your home
while growing up

47. ☐ Witnessing violence in your home as an adult

48. ☐ Witnessing violence outside your home as an adult

49. ☐ Experiencing sexual harassment

[illegible]

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no text or other markings on the paper.

Appendix J

DREAMS, NIGHTMARES AND LIFE EVENTS

Thank-you for your cooperation and participation in this study. The focus of this research is the study of dreams and nightmares as a function of various life events that people have experienced. Of particular concern is how dreams and nightmares of survivors of sexual and physical abuse differ from non-abused people. This type of research may be important in helping clinicians recognize survivors and in turn, the clinicians may be better able to help their clients.

In the event that your participation in this research project has caused any personal distress, the following information is provided to aid you. Additionally, I may be contacted to answer any questions you may have, or to otherwise aid you.

Primary Investigator: Marcia Fernandez
Res. Tel 832-3399

Faculty Advisor: Dr. Susan Painter (788-2653)

Chair of Ethics Committee: Dr. C. Herdman (788-2689)

Chair of Department: Dr. W. Jones (788-2648)

Sources of Aid

1. Carleton University Counselling Services: 564-2808
2. The Sexual Assault Support Centre : 234-2266
3. Catholic Family Service: 233-8478
4. 24 Hour HELP lines: Distress Center 238-3311
Salvation Army Crisis Center 236-7977
Rape Crisis Center 238-6666
Sexual Assault Center 234-2266

Appendix K

DREAM/NIGHTMARE CRITERIA LIST

Frequency: Dreams _____
 Nightmares _____
 Total _____

ContentCharacters

human: friends
 strangers

non-human:

snakes/worms
 insects/spiders
 animals : pets/pleasant
 mad/fierce

Objects

weapons
 body anatomy

Emotions

helplessness/powerlessness
 sadness
 happiness
 anger
 fear
 guilt/shame
 frustration

Themes

alone/abandoned
 chased/dreamer running
 presence
 escaping
 sexual +
 sexual -
 fun/enjoyment

Violence

death: self
 death: other person
 death: animal
 physical aggression
 verbal aggression
 injury
 blood

Appendix L

SAMPLE DREAM REPORT

The following dream was reported by a subject who participated in the pilot study and provides an example of the scoring protocol.

"There were 3 things. They looked like disfigured humans. When I was alone at night, they would appear out of nowhere (i.e. like the wall in my room). They were very ugly. They came closer to me trying to touch me. I hit them but when I touched them I screamed because touching their outer surface was gross. Then they all grabbed me and were taking me away somewhere...I woke up."

Scoring

<u>Content Scored</u>	<u>Category</u>	<u># of Points</u>
3 things	characters-non-human	3
alone at night	Theme-alone/abandoned	1
trying to touch me	violence-physical aggression	1
I hit them	violence-physical aggression	1
I screamed	violence-verbal aggression	1
they all grabbed me	violence-physical aggression	1
taking me away	violence-physical aggression	1
<hr/>		
Total Points:	Characters - non-human	3
	Theme - alone/abandoned	1
	Theme - Physical Aggression	4
	Theme - Verbal Aggression	1

END

28·0|5·92

FIN