THE RELATIONSHIP OF COPING STRATEGIES TO PSYCHOLOGICAL HEALTH AMONG SEXUALLY VICTIMIZED DEAF WOMEN

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By

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I would like to dedicate this dissertation to my parents, Don and Betty McClelland,
without whom this entire journey would never have been possible.
They have given me everything…of course, with a little help from God.

I would also like to dedicate this dissertation to my husband, Don Logan,
and our five amazing children, Maggie, Mollie, Bettie, Austin, and Wyatt.
They have taught me the true meaning of unconditional love.

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ABSTRACT

The purpose of this study was to examine the coping strategies with a sample of deaf women who self-reported an unwanted sexual experience at any point in their life and to assess the relationship between coping strategies used and their overall psychological health and life satisfaction. The current study modified and extended Frazier et al.'s (2005) study by including two additional coping strategies: problem-solving and social support. It was hypothesized that the coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in psychological distress at the time of the unwanted sexual experience(s). Specifically, problem avoidance and social withdrawal would positively relate to past psychological distress and problem-solving, cognitive restructuring, expressing emotions and social support would negatively relate to past psychological distress. Also, it was hypothesized that problem avoidance and social withdrawal would positively relate to current psychological distress, while problem-solving, cognitive restructuring, expressing emotions and social support would negatively relate to current psychological distress. Finally, it was hypothesized that problem avoidance and social withdrawal would negatively relate to life satisfaction and problem-solving, cognitive restructuring, expressing emotions and social support would positively relate to life satisfaction.

This study's findings supported all three hypotheses regarding the prediction of the coping strategies on current or past psychological distress and satisfaction with life. However, problem avoidance, problem-solving and social support did not significantly

predict psychological distress (past or current) or satisfaction with life. Furthermore, cognitive-restructuring and expressing-emotions did not contribute significant variance in current psychological distress or satisfaction with life.

Implications for future research and counseling with deaf women are discussed.

CHAPTER ONE

INTRODUCTION

Sarah, a 21 year-old Deaf college student, was walking to her car after a late night of studying with friends at the university library. Although she attended a university for hearing students, she had always felt safe and supported by the other students. Her sign language interpreters helped her to communicate with her professors and with other students as needed. As she arrived at the parking deck where her car was located, she noticed that the lights that normally lit up the stairwell to her level on the parking deck were knocked out. She continued on up the stairs despite her reservations and was suddenly enveloped in the darkness. As she turned to go back down the stairs where there was more light, she noticed there were two men in there mid-30's walking up behind her on the steps. Sarah decided to turn back around and go faster up the steps until she reached her parking deck. As she finally entered her parking level, she felt her walking gait move to a brisk jog as she noticed the men were still behind her. She reached her car at the same time that the two men came up behind her. Screaming in a nonsensical manner at her attackers, they silenced her by repeated blows to her head and body until she was unconscious. They ripped off her clothes and repeatedly raped her and left her beside her car with blood and skin on the pavement from where her back had embedded into the pavement. When Sarah regained consciousness, she didn't know what to do. She couldn't call anyone. Her deafness made using the phone in a traditional way impossible. The university had crisis phones on each level of the parking deck but they were designed so that the person would push a button and then listen for a police officer to answer through the speakerphone to assess the victim's emergency and location. With

no clothes, bleeding and disoriented from the beating, driving seemed impossible. What was Sarah supposed to do? How would she contact anyone? How was she going to cope with what had happened? How will the choices that she makes to cope influence her psychological well-being?

Unfortunately, stories like Sarah's are all too familiar among deaf individuals. Whether it is an incident of sexual victimization as an adult or sexual abuse committed as a child, anecdotal evidence suggests a high rate of sexual victimization and abuse of deaf children and adults. However, there is limited research addressing the issue of sexual victimization, including adult rape and childhood sexual abuse (CSA), among deaf individuals. In contrast, there is a relatively better understanding of sexual victimization among the hearing population.

The National Violence Against Women Survey conducted by the National Institute of Justice and Centers for Disease Control and Prevention reports that one out of every six American women have been victims of an attempted or completed rape in their lifetime (Tjaden & Thoennes, 2000). The National Resource Council (1993) estimates that the percent of the United States population that has been sexually abused could range from a low of 20-24% to a high of 54-62%. Although there are no reliable annual surveys of sexual assaults among children, it is estimated that one out of six victims are under the age of 12 (U.S. Department of Justice, 1994). It is estimated that, for the general population, 1 out of 4 females and 1 out of 10 males have experienced childhood sexual trauma (Finkelhor, 1986). It is important to note that research studies interchangeably use the terms sexual abuse, sexual trauma, sexual victimization, and sexual assault when describing adult individuals who have been victims of some form of

threatened or forced sexual contact. Clearly, sexual victimization, whether as an adult or child, is a serious issue in our society.

Although reports of prevalence vary, deaf individuals may represent a high-risk group for vulnerability to sexual victimization for a variety of reasons. Deaf children make an easy target for individuals who prey on their vulnerability. Sullivan, Vernon, and Scanlan (1987) estimated that as many as 50% of deaf girls and 54% of deaf boys have experienced childhood sexual abuse. These percentages are considerably higher than the rates reported for children without disabilities.

Unfortunately, no systematic research has been conducted to identify the prevalence of sexual victimization among deaf individuals, the coping strategies that deaf individuals use to deal with victimization, nor the impact of the coping strategies used on their overall psychological health. However, the persistent emotional, social and sexual difficulties that hearing survivors of sexual victimization struggle with is well-documented (Calhoun, Atkeson, & Resick, 1982; Cochran, Frazier, & Olson, 1997; Ellis, Atkeson, & Calhoun, 1981; Frazier, 2003; Frazier & Burnett, 1994; Frazier, Steward, & Mortensen, 2004; Frazier, Tashiro, Berman, Steger, & Long, 2004; Frazier, Berman & Steward, 2002; Frazier, Conlon, & Glaser, 2001; Kilpatrick, Resick, & Veronen, 1981; Resick, 1993; Veronen & Kilpatrick, 1980). Professionals working with deaf individuals who have been sexually victimized at any point in their life have a dearth of literature and research available to them to assist in providing quality services to deaf victims in order to improve their psychological health post-victimization. Many hearing professionals avoid working with deaf individuals who have been sexually victimized because of their lack of knowledge on how to assist them. To address this concern, the present study

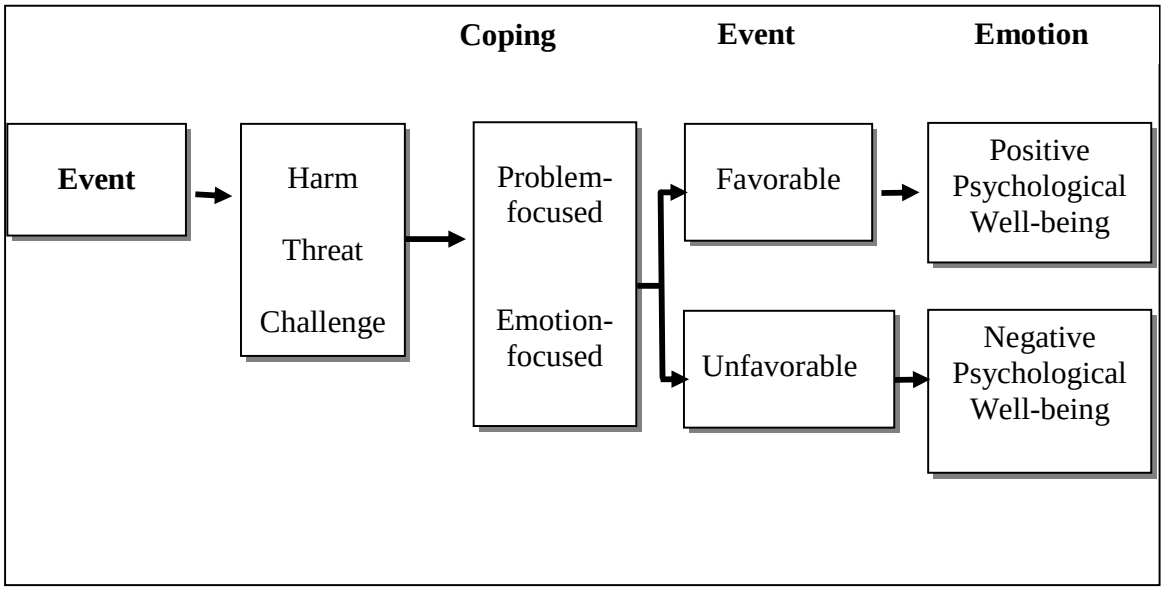
focuses on sexual victimization among deaf individuals. Specifically, this study examines how deaf individuals cope with sexual victimization and how certain coping strategies predict the individual's psychological health and overall life satisfaction.

Coping Theory

Coping strategies and how people use them to deal with life stressors are well-documented (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen, & DeLongis, 1986, Frazier, Mortenson, and Steward, 2005; Ullman, 1996; Arata, 1999; Filipas and Ullman, 2006; Schroeder, 2006; Read, 2001). Coping research tends to focus on an individual's perception of stressful situations and how the individual responds to these situations.

Lazarus and Folkman (1984) defined the process of an individual's cognitive appraisal of an event as an evaluative process that reflects an individual's subjective interpretation. Stressful situations have been found to increase individual coping efforts, and coping strategies are expected to reduce stress (Moos & Schafer, 1993). Lazarus and Folkman (1984) developed a widely-recognized model that described the role of coping with stress and the process in which coping evolves.

Figure 1. Lazarus & Folkman's (1984) theoretical model of the coping process



This model identifies stress as a transaction between individuals and their environment, where the individuals' perception of the stressful situation is the mediating variable of how they are able to cope with it. Transactions that are perceived as stressful (i.e. harmful, threatening, or challenging) require coping that will manage their level of distress (emotion-focused coping) or manage the problem that is causing their distress (problem-focused coping) (Lazarus & Folkman, 1984). Regardless of the chosen coping mechanism there is an event outcome that is either favorable, unfavorable or there is no resolution. Event outcomes lead to positive or negative emotional responses. The Lazarus and Folkman (1984) model predicts that problem-focused coping will reduce the level of problems that could create stress, and that emotion-focused coping will reduce the level of internal emotional distress.

Stressful Events and Psychological Health

There are a number of studies that reflect the impact that stressful events can have on psychological health (Brisette, Scheier, and Carver, 2002; Carver, Pozo, Harris,

Noriega, Scheier, and Robinson., 1993; Eby, 1996; Lee, 2005). These studies provide evidence concerning how coping strategies can influence the level of stress an individual may experience, which then effects overall psychological health. Eby (1996) examined the effect of experiences of abuse and levels of stress on women's psychological and physical health. The study found that high levels of stress resulted in poor overall psychological health and negative physical health symptoms. Healthy coping strategies and social support had significant positive direct effects on the women's psychological health. Lee (2005) completed a study of Caucasian and Asian women who had experienced domestic violence and their psychological outcomes. The study focused on the mediating effects of social support and coping strategies on the relationship between violence and psychological outcome. Lee (2005) found an indirect effect of violence on psychological outcomes through mediating variables of perceived social support and passive coping. Carver at al. (1993) completed a study that reported how optimism influenced distress levels in breast cancer patients, and specific coping strategies (i.e. acceptance and denial) were found to be mediators in the effects of level of optimism on distress. These studies provide evidence that the use of problem-focused and emotion-focused coping strategies will effect the level of stress an individual experiences, as well as their overall psychological health.

This study will examine problem-focused and emotion-focused coping strategies utilized by deaf women who have had unwanted sexual experiences and the effect those coping strategies have on their psychological distress and life satisfaction. For this study, problem-focused coping strategies include problem-solving, cognitive-restructuring, and problem avoidance. Emotion-focused coping strategies include expressing emotions,

social support, and social withdrawal. Problem-focused coping is when an individual seeks to improve their relationship with their environment. Individuals tend to be more action-oriented in order to remove the problem or stressor in their life (Zeidner, 1995). Some examples of problem-focused coping strategies might include an individual thinking about how they can deal with or remove the stressor from their life, seeking advice from others on how to cope with their stressor, and avoiding distractions to deal with the stressor. Emotion-focused coping focuses on how an individual attends to and interprets stressful situations and their emotional reaction to it (Zeidner, 1995). Emotion-focused strategies would include expressing negative feelings, seeking out emotional support from others, effectively managing the stressor, and thinking about the stressor in a way that would make it more positive for the individual.

Coping Strategies

Coping strategies are associated with many life stressors including coping with sexual trauma and health outcomes (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen, & DeLongis, 1986, Frazier et al., 2005, 1993; Ullman, 1996; Arata, 1999; Filipas & Ullman, 2006; Schroeder, 2006; Read, 2001). These studies indicate the impact that utilizing specific coping strategies has on an individual's adjustment to various life stressors and on an individual's adjustment to sexual victimization. Coping strategies are important to victims of abuse after the victimization has occurred (Frank, Johnston, Morrison, Pollard, & MacWalter, 2000; Manne, Babb, Pinover, Horwitz, & Ebbert, 2004; Burt & Katz, 1987; Cohen & Roth, 1987; Frazier & Burnett, 1994; Frazier et al., 2005; Meyer & Taylor, 1986). Burt and

Katz (1987) found that the coping strategies of avoidance, expressive, nervous/anxious, cognitive and self-destructive among rape victims were associated with increased levels of current symptomatology and increased self-blame, and were negatively associated with participants' recovery and self-esteem. Expressive coping behavior was the only strategy that participants identified that was not associated with current guilt and self-blame. Frazier, Mortensen, and Steward (2005) conducted a longitudinal study of female rape victims seen at a rape crisis center. This study reported that less concurrent distress was experienced by victims who utilized cognitive restructuring. Participants who used problem-avoidance coping experienced less distress initially, but more distress 6-12 months post-rape. Participants utilizing social withdrawal as a coping strategy experienced less distress at later times after the rape. This study suggests that the particular time at which specific coping strategies are used can influence their adaptiveness for victims.

The identification of coping strategies that help deaf and hard of hearing individuals cope with unwanted sexual experiences, as well as the knowledge of the influence of these strategies on levels of psychological distress (hostility, anxiety, and depression) will prove useful to mental health professionals, victim advocates, crisis intervention workers, and others working directly or indirectly with these individuals. This study will also provide valuable information for deaf and hard of hearing individuals who have been sexually victimized by identifying which coping strategies may influence their overall psychological health. The findings from this study will add to the dearth of literature currently available and will contribute new theory that will promote future research in this area.

Increasing the knowledge of coping strategies that prove more effective for deaf and hard of hearing individuals may improve the overall psychological health of deaf individuals who have been sexually victimized. According to a study of 54 deaf adults by Steinberg, Sullivan, and Loew (1998), researchers found that deaf individual's mistrust of service providers was a primary concern when seeking services. The study also found that mental health problems were exacerbated by communication difficulties, significant issues with communication in therapy, and an overall lack of awareness of resources available. By educating hearing professionals about effective coping strategies used by deaf individuals that decrease their levels of distress, it is hoped that the quality of care provided to sexually victimized deaf individuals will improve. As a result, more deaf and hard of hearing individuals may reach out for professional services post-victimization.

Conceptual Framework

The conceptual framework for this study was patterned after a study completed by Frazier et al. (2005) that tested whether coping strategies mediated perceived control (past and present) and post-assault distress among recent (less than one year and non-recent, over one year, female sexual assault survivors. The purposes of their study were (a) to determine if behavioral self-blame was associated with distress, (b) if there was any mediation between the relationship of control over the recovery process and positive adaptation, (c) to examine the relationship between specific coping strategies (problem avoidance, social withdrawal, cognitive-restructuring, and expressing emotions) and distress (depression, anxiety, and hostility) following a sexual assault and (d) to determine the generalizability of the results between recent and non-recent female sexual assault survivors. Results indicated that women who had higher levels of behavioral self-

blame were more likely to use social withdrawal as a coping strategy which resulted in them having higher levels of distress than those who did not use social withdrawal. Participants who perceived that they had control over their recovery process reported less distress because they were less likely to socially withdraw, and therefore engage in higher levels of cognitive restructuring. Problem avoidance was also found to be negatively related to levels of distress, although to a lesser degree than social withdrawal. These findings suggest that individuals who engage in a greater degree of behavioral self-blame after a sexual assault tend to withdraw from others and avoid dealing with the assault. Results were consistent among recent and non-recent survivors; however, problem avoidance among non-recent survivors was found to negatively effect levels of distress suggesting that the more an individual avoids a problem the more distress they may experience as a result.

The current study extended Frazier et al.'s (2005) study by focusing on nonrecent survivors who were deaf and who reported an unwanted sexual experience at any point in their life. The study was modified by including two additional coping strategies: problem-solving and social support. In addition, this study assessed the relationship between coping strategies and past and present psychological health and life satisfaction.

It was hypothesized that higher levels of problem avoidance and social withdrawal coping would be positively associated with both past (at the time of the unwanted sexual experience) and present levels of psychological distress (depression, anxiety and hostility) and negatively associated with overall life satisfaction. In addition, it was hypothesized that higher levels of problem-solving, cognitive-restructuring, expressing emotions and social support would negatively correlate with both past and

present levels of psychological distress and be positively related to overall life satisfaction. Examining coping strategies among deaf women who have had unwanted sexual experiences and how those strategies impact their psychological health and life satisfaction may represent one inroad into helping heal the spirit wounded by exposure to sexual victimization.

CHAPTER TWO

LITERATURE REVIEW

This chapter will begin by reviewing the existing literature in five areas relevant to this study and will be presented in the following order: (1) childhood and adult sexual victimization among hearing individuals; (2) childhood and adult sexual victimization among individuals with disabilities; (3) childhood and adult sexual victimization among individuals who are deaf; (4) coping theory; and (5) coping strategies and sexual victimization.

Childhood and Adult Sexual Victimization among Hearing Individuals

Sexual victimization is a major problem that impacts millions of people each year - both adults and children. Challenges in reviewing the literature for childhood sexual victimization and adult sexual victimization are (1) the expansive nature of this literature area and (2) the differences between childhood and adulthood sexual victimization. Adults who are sexually victimized are generally referred to as victims of "sexual assault" (SA; Munro, 2000). For purposes of this study, SA will refer to nonconsensual sexual intercourse involving threats or physical force. On the other hand, childhood sexual abuse (CSA) is viewed differently be researchers because of the often long-term consequences of the trauma. In this study, CSA will be defined as sexual activity with a child by an adult, or by another child that is nonconsensual or where consent is not possible. For example, CSA could include the fondling of a child's genitals, masturbation, digital penetration, oral-genital contact, and vaginal and anal intercourse. However, penetration does not need to occur for it to be considered sexual abuse (Munro, 2000).

CSA can include exposure, voyeurism, and child pornography. The terms sexual abuse, sexual victimization, sexual trauma, and sexual assault will be used interchangeably throughout this study to refer to (1) contact such as, unwanted fondling or kissing, (2) some form of coercion (verbal pressure or direct use of physical force or intercourse as a result of misuse of authority), (3) attempted rape, (4) rape, (5) any aggression. If a significant difference in definitions between research studies cited exists, an explanation will be provided as to the specific definition used by the researcher.

Reports on the incidence and prevalence of sexual victimization in the United States often vary largely due to how sexual victimization is defined. However, studies have shown that somewhere between 15% and 25% of women are survivors of rape at some point during their lives (Kilpatrick et al., 1981). A few key studies have influenced the reporting of incidence of adult sexual victimization among hearing populations. Koss, Gidycz, and Wisniewski (1987) conducted the seminal prevalence study with over 6,000 men and women on 32 college campuses in the United States. Based upon the results, this study predicted that one in four college women will be raped. In this study, Koss at al. (1987) found that 9% of women reported being forced to have sexual intercourse with the threat or use of force; an additional 6% indicated they had experienced anal or oral intercourse or penetration with objects other than a penis that had occurred without their consent and with threat or force. Another 13% indicated that they had been victims of attempted rape accompanied by threat or force. Of the sample, 8% said they had experienced intercourse without consent after having been given drugs or alcohol, and an additional 15% said they had experienced attempted rape after being given drugs or alcohol. In this large college sample, the statistics on forced sexual intercourse, attempted

forced sexual intercourse, use of alcohol and drugs to obtain intercourse were combined, and since some women had experienced more than one of these types of experiences, the researchers concluded that about 25% of their sample had been sexually assaulted (Koss et al., 1987).

In another report, researchers Tjaden and Thoennes (2000) used the findings from the National Violence Against Women survey and found that more than 300,000 women (3%) and over 90,000 men (1%) reported being raped in the previous 12 months. Also, one in six women (17%) and one in 33 men (3%) reported experiencing an attempted or completed rape at some time in their lives. They also found that among the adults who reported being raped, women experienced 2.9 rapes and men experienced 1.2 rapes in the previous year (Tjaden & Thoennes, 2000). Fisher, Cullen, and Turner (2000) reported on a survey conducted for the Department of Justice that found that among college students nationwide, between 20% and 25% of women reported experiencing completed or attempted rape. Unfortunately, despite prevention efforts on college campuses, incidence of reporting sexual victimization appears to be unchanged.

Not only is the incidence of adult sexual victimization a significant problem but statistics regarding child sexual victimization is equally disturbing. In 1993, the National Resource Council estimated that the percent of the U.S. population that had been sexually abused as children to range from a low 20-24% to a high of 54-62% (the higher estimate included sexualized exposure without touching, such as masturbating in front of a child). Regardless of the discrepancy in prevalence data, there is little doubt that childhood sexual victimization is a pervasive social problem. According to the Department of Health and Human Services (2005), about 2 out of 1,000 children in the United States

were confirmed by child protective service agencies as having experienced a sexual assault in 2003. The Centers for Disease Control and Prevention (2004) completed a Youth Risk Behavior survey in 2003 that found that approximately 9% of high school students reported that they had been forced to have sexual intercourse. Female students (11.9%) were found to be more likely than male students (6.1%) to report sexual assault. These estimates have remained relatively unchanged in the literature over the years.

Risk Factors for Sexual Victimization

Women are more likely to be victims of sexual victimization than men. Tjaden and Thoennes (2000) found that 78% of the victims of rape and sexual assault were women and 22% were men. Female children are also at greater risk for sexual victimization (Boney-McCoy & Finkelhor, 1995; Sedlak, 1997). Females may be at greater risk because they are often considered more vulnerable than males, and most perpetrators of sexual victimization are male. According to the National Violence Against Women survey, of the women who were sexually victimized since the age of 18, 100% of rapes, 97% of stalking acts and 92% of physical assaults were committed by men (Tjaden & Thoennes, 2000).

Age is also a significant risk factor for sexual victimization. Young women seem to be at higher risk of being raped than older women (Acierno, Resnick, Kilpatrick, Saunders, & Best, 1999). Fifty-four percent of all rapes of women occur before the age of 18, and 22% of these rapes occur before age 12 (Tjaden & Thoennes, 2000). Among a nationally representative sample of children, research found that children who were older than 12 were at greater risk for child sexual victimization (Boney-McCoy & Finkelhor, 1995).

Studies show that individuals who are sexually abused are at an increased risk for being abused again (Elliot, Mok, & Briere, 2004; Jewkes, Sen, & Garcia-Moreno, 2002; Rickert, Wiemann, Vaughan, & White, 2004) Twenty years ago, Finkelhor (1986) examined the existing literature and estimated that 6% to 62% of adults in the general population were abused as children. Previous research has demonstrated a link between CSA and vulnerability to sexual victimization in adulthood. Individuals who are survivors of CSA are more likely to be victimized as adults than individuals with no CSA history (Russell, 1986). Also, women who report being victims of sexual violence as adults report CSA experiences at a rate two to three times greater than women who have not been victims of sexual violence (Himelein, Vogel, & Wachowiak, 1994; Koss & Dinero, 1989; Wyatt, Guthrie, & Notgrass, 1992). Tjaden and Thoennes (2000) found that women who are raped before the age of 18 are twice as likely to be raped as adults in comparison to those women who did not have a prior history of sexual victimization.

Socio-economic status may also increase the likelihood for sexual victimization of women and children. According to the National Crime Survey reports of victimization that occurred after age 12, women in the lowest third of the income distribution were the most likely to have been sexually assaulted (53% of victims) and women in the top third were least likely to have been sexually assaulted (15% of victims) (Harlow, 1991). Zweig, Sayer, Crockett, and Vicary (2002) reported that contextual risk factors may also be part of a woman's increased likelihood of being victimized. For example, women who report growing up with one parent indicate higher levels of sexual abuse and sexual assault (Benedict & Zautra, 1993; Finkelhor, Hotaling, Lewis, & Smith, 1990; Moore, Nord & Peterson, 1989) than those with two parents. Factors that increase an

individual's vulnerability to sexual victimization include less parental supervision (for children), having to walk alone at night because of various circumstances, and increased dependence on males for survival (Jewkes at al., 2002). Poverty often necessitates women engaging in high-risk survival activities, such as trading sex for food, money, or other items (Wenzel, Tucker, Elliott, Marshall, & Williamson, 2004). Children in families with lower income were found to be at increased risk for child sexual victimization in studies that investigated the relationship between family income and child sexual victimization (Sedlak, 1997). Also, Boney-McCoy and Finkelhor (1995) found that children between the ages of 10 and 16 from low income communities where drugs and violence were prevalent were at an increased risk for child sexual victimization.

Ethnicity and culture also constitutes a potential risk according to some research studies. Although, statistics vary depending on the population investigated and whether the study identifies those that report to police or other officials or those that self-report for purposes of the study. The National Violence Against Women survey found that American Indian and Alaskan Native women were more likely (34%) to report being raped than African American women (19%), White women (18%) or Hispanic women (15%) (Tjaden & Thoennes, 2000). Sedlak (1997) found that the relationship between a child's race and sexual victimization depends on age, with whites, Blacks and Hispanics at greater risk than other races when the victim's age was older. Boney-McCoy and Finkelhor (1995) also found that Black and White children were at increased risk for child sexual victimization.

Drug and alcohol use and some sexual behaviors have been identified in research as placing individuals at higher risk for sexual victimization. Increased rates of sexual victimization can be related to excessive drinking and drug use (Champion, Foley, DuRant, Hensberry, Altman, & Wolfson, 2004; Koss & Dinero, 1989; Miller & Marshall, 1987; Muehlenhard & Linton, 1987; Myers, Templer, & Brown, 1984). Koss and Dinero (1989) reported that a coercive male may consider his date's intoxication as evidence of her willingness to engage in sex and feel less inhibited about using force. Heavy alcohol consumption may make it difficult for a woman to identify danger signals (Richardson & Hammock, 1991), which could lead to her inability to physically resist an attack (Muehlenhard & Linton, 1987).

High-risk sexual behavior could be considered a vulnerability factor or as a consequence of childhood sexual abuse. Young adults with multiple sexual partners are at an increased risk of sexual victimization (Valois, Oeltmann, Waller, & Hussey, 1999; Howard & Wang, 2003). Research also indicates that CSA survivors may display age inappropriate sexual interest and knowledge, use sexual behaviors as a way of gaining attention from others and have problems setting appropriate boundaries (Lundberg-Love & Geffner, 1989; Russell, 1986). Gidycz, Coble, Latham, and Layman (1993) suggested that powerlessness and unworthiness as a result of previous sexual trauma may have a direct impact on the likelihood of victimization. Research indicates that women who are sexually active at a younger age report a larger number of sexual partners and are more likely to be victims of sexual violence (Abbey, Ross, McDuffie, & McAuslan, 1996; Erickson & Rapkin, 1991; Himelein et al., 1994; Koss, 1985; Koss & Dinero, 1989;

Miller, Monson, & Norton, 1995; Mynatt & Allgeier, 1990; Vicary, Klingaman, & Harkness, 1995).

Childhood and Adult Sexual Victimization among Individuals with Disabilities

Research suggests that for women with disabilities, sexual victimization is a significant problem. The Disabled Women's Network of Canada (Ridington, 1989) surveyed 245 women with disabilities 12% of those women had been raped. In the study, rape was defined as nonconsensual sex (Ridington, 1989). Perpetrators of the abuse were primarily spouses and ex-spouses (37%) and strangers (28%), followed by parents (15%), service providers (10%), and dates (7%). In a study conducted by Sobsey and Doe (1991), of 166 abuse cases managed by the University of Alberta's Sexual Abuse and Disability Project 82% of women and 70% of individuals with intellectual disabilities had been sexually abused. Sobsey and Doe (1991) found that in 96% of the cases, the victim knew the perpetrator and that 44% of the perpetrators were service providers.

Women and girls with disabilities face alarming rates of victimization by family members, personal care attendants, acquaintances, and residential living and school attendants. Women with disabilities are more likely than women without disabilities of the same age to be victimized, to experience prolonged and severe forms of victimization, and to suffer more serious and chronic effects of the victimization (Sobsey, 1994). Studies have also found that women with disabilities are assaulted, raped, and abused at a rate more than two times greater than women without disabilities (Sobsey, 1994; Waxman, Fiduccia & Wolfe, 1999).

Ammerman and Baladerian (1993) reported that studies investigating the maltreatment of children with disabilities report rates that range from four to ten times

that of the general population, and that prevalence reports vary from 3% to 70% of children with disabilities. To identify risk factors and incidence rates for children with disabilities, the National Center on Child Abuse and Neglect (NCCAN, 1994) completed a study to identify the incidence of child abuse among children with disabilities and to identify relationships between abuse (specific and non-specific types) and disability. Child Protective Service (CPS) agencies were recruited to form a nationally representative sample and were asked questions regarding their caseloads that were substantiated for abuse. The study found that 36 per 1, 000 children with disabilities were reported to be maltreated, which is 1.7 times higher than the general population. The incidence of sexual abuse was reported as 3.5 per 1,000 children, which is 1.8 times the rate for the general population. The most frequent disabilities among abused children were serious emotional disturbance, learning disability, and speech or language delay or impairment. As compared to children without disabilities, the sexually abused children with disabilities were typically white males from one-child families and over four years old (NCCAN, 1994).

Primary caretakers of children with disabilities were involved in the reported maltreatment in 14% of the cases, whereas primary caretakers were involved in 24% of the cases pertaining to children without disabilities. Thus, this study identified that children with disabilities are more likely to be abused by people other than their parents when compared to children without disabilities. Previous allegations of maltreatment were reported in 42% of the families with children with disabilities and 39% of the families from the general population of maltreated children. In 47.2% of the cases,

caseworkers reported that they believed the disabilities of the children "lead to or contributed to the maltreatment" (NCCAN, 1994, p. 3-12).

It is important to note that there are methodological problems with this study (NCCAN, 1994). First, the research did not include institutional abuse because "many of the [Child Protective Services] agencies serve only children who are within family settings (p. 1-10)." This affects the generalizability of the results due to the fact that many children with disabilities attend residential schools. Second, the determination of disability status in this study was left up to the caseworkers in most instances. Even though researchers listed specific disabilities based on the Americans with Disabilities Act, hearing loss was only to be listed if the loss was not correctable with the use of a hearing aid. Also, caseworkers occasionally collapsed some disabilities into larger groups. For example, deafness may have been included under a speech or language delay or impairment. Finally, the study only included substantiated reports of abuse to children with disabilities. This may significantly underestimate the extent and the prevalence of abuse among children with disabilities. Regardless, it seems clear that the results of this study indicate that children with disabilities are more likely than other children to be victims of abuse.

Sobsey (1994) completed an extensive review of the literature and found that individuals with disabilities frequently report chronic and severe CSA from not only the same type of perpetrators as the general population, but also from others with disabilities and disability service providers. In addition, Sobsey found that mental retardation and hearing loss were among the most commonly reported disabilities for individuals who experienced CSA.

Risk Factors for Sexual Victimization

Some risk factors for victimization among individuals with disabilities that have been identified in research include but are not limited to: social powerlessness, communication barriers, reduced ability to protect oneself due to lack of education and/or resources, difficulty in detecting who is safe and who is not, family isolation and stress, and residential living (Kempton & Gochros, 1986; Valenti-Hein & Schwartz, 1995; Sobsey & Mansell, 1990; Sobsey, 1994). Sobsey and Mansell (1990) found that individuals living in a residential setting are at a higher risk for sexual victimization (two to four times as high) as individuals living in the community. However, another study (Sobsey, 1994) found that sexual victimization was most common in private homes (49.8%) and institutions (15.8%).

Consistent with incidence rates in the general population, research studies completed with individuals with disabilities find that women and girls are at higher risk for victimization than males. Baladerian (1991) completed a national study that found that between 39-83% of females and 16-32% of males with developmental disabilities will be sexually abused before they are 18 years old. Another study that included found that 84% of the victims were female (Sobsey & Varnhagen, 1989).

Childhood and Adult Sexual Victimization among Deaf Individuals

Research in the area of deafness and sexual victimization is desperately needed. The National Institute on Deafness and Other Communication Disorders of the National Institute of Health estimates that a minimum of 10% of the total population has a "significant hearing loss." According to the 2000 United States Census, there are over 280,000,000 individuals living in the United States. That number would make the total

number of United States citizens with a “significant hearing loss” at approximately 28,000,000. According the 2005 National Crime Victimization Survey, there were 191,670 victims of rape, attempted rape or sexual assaults that were reported. It is possible that 10 percent of that number were individuals with a significant hearing loss, which would be over 19,000 sexually victimized deaf and hard of hearing individuals in 2005.

Unfortunately, there are no prevalence rates for sexual victimization of the deaf population in the United States. However, a national survey of deaf adults in Norway found that 80% of all deaf individuals in the study reported sexual abuse at some point during their childhood (Kvam, 2000). In Thailand, prostitution houses specifically seek out young deaf girls and adolescents because they will be less able to communicate their distress or find their way back to their homes because their customers, employers and fellow sex workers would not know sign language (UNICEF, 2005)

Deaf children are easy targets for sexual victimization because of their inability to communicate the abuse to anyone outside of their providers of care (parents, teachers, dorm counselors if attending a school for the Deaf, etc.). It is also possible that the abuser would be the child’s link to report the abuse which would further serve to limit the child’s ability to report sexual abuse or even ask for help (UNICEF, 2005). According the NIDCC (2007), ninety percent of all Deaf children have hearing parents. Unfortunately, the majority of those parents never learn how to communicate with their child in sign language. For children who are raised orally (a method of communication used by the Deaf whereby they lip-read all spoken language from another person’s lips), it is important to understand that less than 30% of all spoken language is decipherable

through lip-reading. Oral Deaf children have tremendous difficulty understanding and communicating with hearing individuals. Deaf children make safe and easy targets for sexual victimization for perpetrators because of the barriers to communication that exist for them to communicate with others about their victimization. Also, Deaf children do not have access to the same kind of education and training on safety issues that hearing children may receive in school.

There is a lack of educational materials concerning sexual victimization and protection in the Deaf community. Deaf women who are sexually victimized are more likely to assume that their experience is unique, and they are less likely to know where to go for help or to even know that help is available to them (The L.E.A.D. Institute, 2007). When deaf victims are isolated, they are more likely to blame themselves because they may not have the education and awareness that others have had similar experiences. Even if a deaf victim does decide to seek help, she faces greater barriers in contacting the police, the shelter, or other emergency services unless their agencies have and know how to use a TTY (tele-typewriter – special phone adapter used by members of the Deaf community to communicate with each other directly and with hearing individuals by using a relay service). Communication and the use of qualified interpreters by social service agencies continues to be a significant barrier (Steinberg, 1991).

Other characteristics of the Deaf community itself may inhibit women from talking about the victimization. A study on domestic violence among culturally Deaf and hard of hearing women conducted by Sadusky and Obinna (2002) found that isolation and communication are significant barriers for Deaf individuals. Services in hearing agencies were generally unavailable to them; however when services were accessible it

was only through the use of an interpreter, who was often times unqualified. Experts in deafness describe the Deaf community as extremely close, strong and insular (Lane, Hoffmeister, & Bahan, 1996; Modry, 1994; Williams & Abeles, 2004). This tight knit community may limit a deaf woman's chances of reporting her victimization because of concerns regarding confidentiality – an important need for most victims. Sadusky and Obinna (2002) found that Deaf women who were forced to use an interpreter during their services felt that the reliance on the interpreters meant giving up their privacy and sharing intimate details of their life with an additional stranger. The study also found that Deaf women lacked confidence that interpreters would accurately represent their words and experiences. The isolation of the Deaf community from the rest of society creates a greater dependence upon the family and the community. A Deaf woman is likely to be even more afraid of threatening this support system than a hearing woman who has more alternatives for establishing a new one. Sadusky and Obinna (2002) found that the insensitivity of society to the problems of the Deaf has fostered a suspicion among the Deaf of interference from service professionals and a fear of intervention into their personal lives. Narrow conceptions of family and gender roles may contribute to the incidence of sexual victimization among Deaf women (Sadusky & Obinna, 2002).

A recent study in Texas (National Domestic Violence Hotline/Texas Council on Family Violence, 2002) identified that two out of three Deaf women experience some form of emotional, physical, and/or sexual abuse (as compared to one out of three for hearing women). Within the domestic violence movement, deaf individuals are often perceived and counseled the same as people who can hear. Because of this, providers are not recognizing and addressing the unique challenges Deaf survivors face. An example

included in the report shows that an abuser is more likely to attack a Deaf partner at night when her sight is impaired. In addition, the abuser is more likely to attempt to hurt a Deaf person's sight to disable her further.

There are only a few studies that identify sexual victimization among individuals who are deaf. One study researched residential deaf children and used police investigators and interpreters to interview 150 deaf children (Sullivan et al., 1987). Results indicated that 75 of the 150 students reported that they had been sexually abused and 19 of the 75 reported incest in their homes.

Another study by the same group of researchers had clinicians interview 100 deaf children with substantiated cases of CSA to determine the circumstances of their abuse (Sullivan et al., 1987). The children were recruited from the Boys Town National Institute for Communication Disorders in Children and were interviewed individually by counselors fluent in sign language. Of the 64 deaf children from residential schools in this study, 62.5% were abused in the school, 16% in the home and 23% at both the school and the home. Of the 35 mainstreamed students in this study, 26% were abused at the school, 60% in the home, and 14% at both locations. From this study, Sullivan et al. (1987) estimated that 50% of deaf girls report sexual abuse as compared to 25% of hearing girls, and that 54% of deaf boys report abuse as compared to 10% of hearing boys. These results suggest that the incidence of abuse is higher among deaf children compared to hearing children. Note that in this study, the proportion of deaf girls and boys who reported sexual abuse was approximately equal and differs from the usual trend of higher incidence for girls in the hearing populations. Deaf children are more

vulnerable to sexual abuse than children in the general population (Sullivan et al., 1987). Further research in this area is needed.

Westcott (1991) identified characteristics that may increase the likelihood of abuse of children with disabilities. Those characteristics include lack of control or choice over their own lives, feelings of isolation that increase responsiveness to attention and affection, compliance and obedience instilled as good behavior, and inability to communicate experiences. These characteristics that are generally present in children with disabilities may help to understand the high rate of CSA in deaf children. Sullivan et al. (1987) suggest that deaf children may not have an adult available who is capable of understanding their sexual signs or their language. Another possible factor that may contribute to abuse among deaf children includes the parental stress (an identified risk factor for child abuse) that happens as a result of finding out that their child has a disability (Brookhouser, Sullivan, Scanlan & Garbarino, 1986).

Andrews and Veronen (1993) identified four requirements for effective victim services for women with disabilities. These services include providing adequate assessment of survivors, including questions about disability-related issues, training providers on how to work with individuals with disabilities appropriately, advocating for services that are accessible to all individuals with disabilities, and providing legal protection against abuse for persons with disabilities if they are dependent on caregivers. The National Domestic Violence Hotline maintains a database of information where deaf individuals can receive support if they have been sexually victimized. Also, the National Coalition Against Domestic Violence has a manual that provides specific guidelines to victim service providers on how to provide accessible services according to the

requirements of the Americans with Disabilities Act and increased sensitivity and responsiveness to individuals with disabilities who are victims of emotional, physical and sexual abuse (National Coalition Against Domestic Violence, 1996).

Pollard (1992) stressed the importance of educating oppressed individuals on how to access the sources of power and privilege in society. For effective political action to occur, mutual interactive learning must take place for the researcher and the oppressed group. The researcher must be open to recommendations for action that the oppressed group considers necessary, and members of the oppressed group must be willing to learn ways to use information to make changes in their lives. Finally, policy makers must be willing to accept intervention strategies for the oppressed groups (Pollard, 1992).

There is very little literature that exists on disability and abuse and even less that focuses specifically on the Deaf community. Nosek, Howland, and Hughes (2001) reviewed the abuse and disability literature and found seven problems that existed in producing valid empirical research. The first problem was that researchers rarely made a distinction between the various forms of abuse (emotional, physical, and sexual). Second, Nosek et al. (2001) found that studies used nonstandardized measurement instruments and techniques. This study will combine standardized instruments to compare results with the general hearing population. Currently, there are no standardized instruments to use with the Deaf population and it is hoped that this research may facilitate a standardized procedure for evaluating sexual victimization among deaf individuals.

Nosek et al. (2001) found a third problem with disability and abuse research as it related to a lack of effort made by researchers to document separate incidents by a

perpetrator. A fourth problem was that the samples in many studies were heterogeneous in terms of disability type, gender and age. This study will be specifically focused on women who are deaf and 18 years of age or older. Another concern of Nosek et al. (2001) was that many researchers used convenience sampling as opposed to doing research that was representative, random, or population-based. The current project will not utilize convenience sampling. Participants will be recruited via the Internet to respond to the survey. It is hoped that this research will be more representative of the deaf population.

Finally, Nosek et al. (2001) found that the statistical analyses of abuse and disability research focused on frequencies and measures of central tendency. By focusing on specific experiences in low incidence populations, the subsamples were too small to allow for more sophisticated analytic procedures. This research will produce a significant response from deaf individuals that will allow for a more advanced statistical analysis beyond reporting frequencies. However, when researchers complete studies with marginalized populations, it is often difficult to get a large representative sample. It is hoped that Deaf individuals will be motivated to participate in this research study because of the information it will provide the Deaf community and professionals working with them.

Coping Theory

A search of the *Social Citations Index* literature for the last ten years on "coping" yielded more than 14,000 articles. Folkman and Lazarus (1991) defined coping as a person's "cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding resources of the person." In other

words, based upon their definition, how a person perceives a stressful situation and how they are responding to the stressor will influence their psychological health. Thus, coping refers to how people deal with and manage stressors in their life with their thoughts and actions. Individual characteristics such as personality, cultural beliefs, family background, and biology all influence how an individual copes with stress. Coping research tends to focus on individual's perception of stressful situations and how they respond to them.

Literature involving coping has identified multiple strategies that individuals use to deal with stressful events. Zeidner (1995) hypothesized that coping strategies can be placed into one of three categories: problem-focused, emotion-focused, and avoidance-oriented. Problem-focused coping is when an individual seeks to improve their relationship with their environment. Individuals tend to be more action-oriented in order to remove the problem or stressor in their life. Some examples of problem-focused coping strategies might include an individual thinking about how they can deal with or remove the stressor from their life, seeking advice from others on how to cope with their stressor, and avoiding distractions to deal with the stressor. Emotion-focused coping focuses on how an individual attends to and interprets stressful situations and their emotional reaction to it. Emotion-focused strategies would include expressing negative feelings, seeking out emotional support from others, effectively managing the stressor, and thinking about the stressor in a way that would make it more positive for the individual. Avoidance-oriented coping would be when an individual avoids dealing with the stressor. Some examples of avoidance-oriented coping strategies would include denying the stressor and creating distractions in order to avoid dealing with the stressor.

Stressful situations have been found to increase individual coping efforts, and positive coping strategies are expected to reduce stress (Moos & Schafer, 1993). Lazarus and Folkman (1984) developed a widely-recognized model that described the role of coping with stress and the process in which coping evolves. The model identifies stress as a transaction between individuals and their environment where the individuals' perception of the stressful situation is the mediating variable of how they are able to cope with it. Transactions that are perceived as stressful (i.e. harmful, threatening, or challenging) require coping that will manage their level of distress (emotion-focused coping) or manage the problem that is causing their distress (problem-focused coping) (Lazarus & Folkman, 1984). Regardless of the coping process chosen there is an event outcome that is either favorable, unfavorable or there is no resolution. Event outcomes lead to positive or negative emotional responses. The Lazarus and Folkman (1984) model predicts that problem-focused coping will reduce the level of problems that could create stress and emotion-focused coping because it will reduce the level of internal emotional distress.

A number of studies indicate that stressful events effect psychological health. A study completed by Eby (1996) of 107 women living in poverty found that their experiences of abuse and high levels of stress resulted in poor overall psychological health and negative physical health symptoms. Healthy coping strategies (i.e. problem-solving, cognitive-restructuring and expressing emotions) and social support had positive effects on participant's psychological health. Similarly, Lee (2005) found a relationship between domestic violence and psychological outcomes among a sample of 100 Caucasian women and 61 Asian women. Specifically, this study reported on the indirect

effect of violence on psychological outcomes through mediating variables of perceived social support and passive coping. Carver et al. (1993) found that breast cancer patients' optimism related to their distress levels before and after surgery, and specific coping strategies (i.e. acceptance and denial) were mediators in the effects of their level of optimism on distress. A study by Brisette, Scheier, and Carver (2002) found that optimism led to positive reinterpretation and coping strategies that resulted in lower levels of stress when dealing with a stressful life event. These studies seem to provide evidence that utilizing coping strategies impacts the level of stress an individual will experience, which then influences their overall psychological health.

Research has found that problem-focused coping strategies lead to positive psychological health, such as reduced depression (Aldwin, 1991; Billings & Moos, 1984; Carver, Scheier, & Weintraub, 1989; Carver et al., 1993; Lazarus & Folkman, 1984; Heppner, Cook, Strozier, & Heppner, 1991; Bowman & Stern, 1995; Littrell & Beck, 2001; Foyle, 1997). Aldwin (1991) completed a study of 228 adults examining the use of coping strategies in stressful situations. Results indicated that perceived self-efficacy and participants' use of coping strategies (i.e. cognitive-restructuring, expressing emotions, and problem-solving) had a direct effect on reduced depression. Billings and Moos (1984) studied the roles of stress and coping among 424 men and women entering treatment for depression and found that problem-solving coping strategies were associated with lower levels of depression and less severe dysfunction. Carver et al. (1993) studied 59 breast cancer patients and found that those patients that used problem-focused coping strategies predicted low levels of distress and denial, while disengagement predicted high levels of distress. Results from these studies seem to

indicate that problem-focused coping strategies would have a positive impact on psychological health outcomes.

Studies have also shown that constructive coping strategies, such as expressing emotions, socialization, problem-solving and support-seeking, lead to reduced anxiety (Baez, 2000) and hostility (Blair, 2000; Sameyah-Amiri, 1998), and greater psychological well-being (Swindle, Cronkite, & Moos, 1989; Otrar, Eksi, Dilmac, & Sikin, 2002; Essex, Seltzer, & Krauss, 1999). However, avoidance-oriented coping is found to be more harmful for individuals and lead to higher levels of dysfunction (Appelhans & Schmeck, 2002; Carver et al., 1989; Kessler, Price, & Wortman, 1985; Solberg & Villarreal, 1997). Emotion-focused coping strategies focusing on negative emotions like self-blaming are associated with poor overall psychological health (Billings & Moos, 1984). Individuals who use emotion-focused coping strategies in a positive way (i.e. positively interpreting a stressor in their life) can be considered an adaptive coping strategy. It is important to recognize that specific coping strategies used by an individual are not only influenced by their own personal characteristics but by the level of stress in a situation. Stowell, Keicolt-Glaser, and Glaser (2001) completed a cross-sectional study to determine whether active and avoidant coping methods were differentially related to immune function depending on participant's stress level. Specifically, this study reported more active coping strategies were used by individuals experiencing higher levels of stress, and lower stress situations were found to be significantly associated with more passive coping skills. Clearly, the particular stressor is a variable that facilitates the type of coping mechanism an individual will utilize in that situation.

Coping Strategies and Sexual Victimization

Although there is a growing body of literature associated with coping strategies and sexual victimization, a *PsycINFO* search found no articles associated with coping strategies of sexually victimized deaf women. Coping strategies are employed to deal with many life stressors including adjustment to sexual victimization (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen, & DeLongis, 1986, Ullman, 1996; Arata, 1999; Filipas & Ullman, 2006; Schroeder, 2006; Read, 2001). Ullman (1996) completed a study of 155 adult sexual assault victims and found that avoidance-coping strategies were associated with increased psychological symptoms (depression and anxiety) which negatively impacted their adjustment to the sexual victimization. In this study, reactions to victims' disclosure led to avoidant coping which resulted in greater post-rape psychological distress. Arata (1999) examined 119 undergraduate females in a study that looked at the roles child sexual assault, attributions and coping on adjustment to rape. The study found that coping strategies, such as attributional blame, have a positive impact on an individual's adjustment to sexual victimization. Frazier and Burnett (1994) completed a study of 67 rape victims and found that coping strategies such as staying at home and withdrawing from others were associated with higher levels of psychological distress. Seeking social support and counseling, talking about the rape and keeping busy were found to be the most helpful coping strategies. Results from this study indicate that approach strategies may be more helpful to sexually abused individuals following an assault than avoidance-focused strategies.

Coping strategies are important to victims of abuse after victimization has occurred (Frank, Johnston, Morrison, Pollard, & MacWalter, 2000; Manne, Babb, Pinover, Horwitz, & Ebbert, 2004; Burt & Katz, 1987; Cohen & Roth, 1987; Frazier & Burnett, 1994; Frazier et al., 2005; Meyer & Taylor, 1986). Burt and Katz (1987) found that the coping strategies rape victims used were associated with increased levels of current symptomatology, increased self-blame, and were negatively associated with the participants' recovery and self-esteem. Expressive coping behavior was the only strategy they identified that was not associated with current guilt and self-blame. Frazier et al (2005) conducted a longitudinal study of female rape victims seen at a rape crisis center. The purposes of their study were (a) to determine if behavioral self-blame was associated with distress, (b) if there was any mediation between the relationship of control over the recovery process and positive adaptation, (c) to examine the relationship between specific coping strategies (problem avoidance, social withdrawal, cognitive-restructuring, and expressing emotions) and distress (depression, anxiety, and hostility) following a sexual assault and (d) to determine the generalizability of the results between recent and non-recent female sexual assault survivors. Results indicated that women who had higher levels of behavioral self-blame were more likely to use social withdrawal as a coping strategy, as well as report higher levels of distress than women who did not use social withdrawal coping. Participants who perceived that they had control over the recovery process reported less distress because they were less likely to socially withdraw and engaged in higher levels of cognitive restructuring. Problem avoidance was also negatively related to levels of distress, although to a lesser degree than social withdrawal. These findings suggest that individuals who engage in a greater degree of behavioral self-

blame after a sexual assault tend to withdraw from others and avoid dealing with the assault. Results were consistent among recent and non-recent survivors; however, problem avoidance among non-recent survivors was found to negatively impact levels of distress. This finding suggests that the more an individual avoids a problem, the more distress they may experience as a result.

It is clear from the literature review that stressful events impact psychological well-being and that an individual's level of distress will be influenced by the coping strategies that she employs to manage the stressful events. However, additional research is needed to address limitations to previous studies. First, the majority of the studies reflected minimal diversity among the participants. Second, examining a larger number of coping strategies utilized by victims is essential. The current study will address these limitations focusing on a marginalized population and contributing to the body of research and by assessing an expanded number of coping strategies. Currently, there is no research investigating the coping strategies used by sexually victimized deaf women and how those strategies may influence their levels of psychological distress and life satisfaction. This study is a modified and expanded version of the Frazier et al. (2005) study with a sample of deaf women who self-report unwanted sexual experiences in their lifetime.

The Present Study

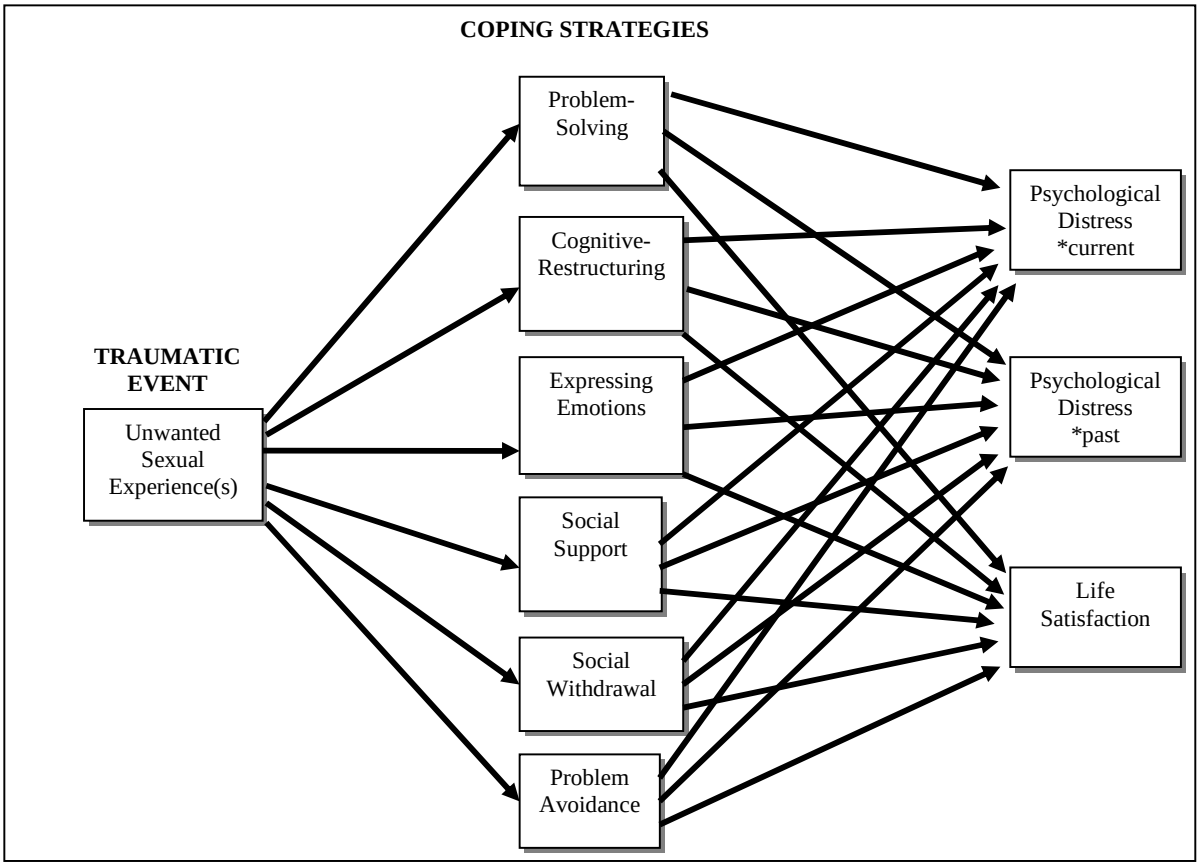
The primary purpose of this dissertation research is to examine types of coping strategies (problem avoidance, social withdrawal, cognitive-restructuring, expressing emotions, problem-solving and support-seeking) used by deaf and hard of hearing women coping with past unwanted sexual experiences, and to identify if these coping strategies

contributed significant variance to psychological distress (hostility, anxiety, and depression) and life satisfaction. Psychological distress was assessed for feelings of current distress (within the last week), as well as past distress (what they remembered experiencing at the time of the unwanted sexual experience(s).

Conceptual Model Tested in the Current Study

A conceptual model of the influence the main variables examined in the current study are presented in a conceptual model in Figure 2 below. This model, which is congruent with Lazarus and Folkman's theory (1984), posits that negative problem-focused (problem avoidance) and emotion-focused (social withdrawal) coping strategies following an unwanted sexual experience positively correlates with psychological distress (depression, anxiety, and hostility) and negatively influences life satisfaction. In turn, positive problem-focused (problem-solving and cognitive-restructuring) and emotion-focused (expressing emotions and social support) coping strategies are expected to negatively influence psychological distress and positively correlates with overall life satisfaction.

Figure 2. Coping Strategies Impact on Psychological Distress and Life Satisfaction following an Unwanted Sexual Experience for Deaf Women



More specifically presented in Figure 2, as hypothesized positive coping strategies (problem-solving, cognitive-restructuring, expressing emotions, and social support) were posited to act as resiliency factors, negatively moderating the link between exposure to unwanted sexual experiences and psychological distress and positively moderating the link between exposure to unwanted sexual experiences and life satisfaction. Conversely, negative coping strategies (problem avoidance and social withdrawal) were posited to act as positively moderating the link between exposure to unwanted sexual experiences and psychological distress and negatively moderating the link between exposure to unwanted sexual experiences and life satisfaction. There are a

significant number of studies that reflect the impact that stressful events in general have on psychological health (Brisette, Scheier, and Carver, 2002; Carver, et al., 1993; Eby, 1996; Folkman, 1997; Lee, 2005). These studies provide evidence that coping strategies influence the level of psychological distress an individual may experience, which then affects their overall psychological health.

Hypotheses

This study focused on nonrecent survivors who were deaf and who reported an unwanted sexual experience at any point in their life, and modified and extended Frazier et al.'s (2005) study by including two additional coping strategies: problem-solving and social support. In addition, this study assessed the relationship between coping strategies and overall psychological health and life satisfaction. Based on the review of the relevant literature and the conceptual and theoretical framework for this study, the following hypotheses were investigated.

Hypothesis #1: The coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in psychological distress at the time of the unwanted sexual experience(s). Specifically, problem avoidance and social withdrawal will positively relate to past psychological distress and problem-solving, cognitive restructuring, expressing emotions and social support will negatively relate to past psychological distress.

Hypothesis #2: The coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in current psychological distress. Specifically, problem

avoidance and social withdrawal will positively relate to current psychological distress and problem-solving, cognitive restructuring, expressing emotions and social support will negatively relate to current psychological distress.

Hypothesis #3: The coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in overall life satisfaction. Specifically, problem avoidance and social withdrawal will negatively relate to life satisfaction and problem-solving, cognitive restructuring, expressing emotions and social support will positively relate to life satisfaction.

CHAPTER THREE

METHODOLOGY

This chapter begins by describing the study's participants and procedures used during the data collection process. Next, the measures used in this study are presented in detail. This is followed by a narrative of each of the specific hypotheses to be tested in this study. Finally, an overview of the design analyses used to test these hypotheses concludes this section.

Participants

The sample included 71 women who self-identified a hearing loss. Fifty-nine percent reported a profound hearing loss (*n* = 42), 34% reported a severe hearing loss (*n* = 24), 3% reported a moderate loss (*n* = 2), and 1% reported a mild loss (*n* = 1). Two participants did not report their hearing status. The overall mean age of the participants was 38 years, (*SD* = 10.5; 19-63). One participant did not report her gender. The ethnic make-up of the participants consisted of 89% Caucasian (n = 63), 3% Asian American/Asian/Pacific Islander (*n* = 2), 3% Biracial or Multiracial (*n* = 2), 3% Latino(a) (*n* = 2), 1% Native American (*n* = 2), and 1% representing missing data (n = 1).

Eighty-three percent of the participants were heterosexual (*n* = 59), 14% were lesbian or bi-sexual (*n* = 10), 1% reported being "omnisexual" (*n* = 1) and 1% did not respond (*n* = 1). Forty-six percent of the respondents reported using American Sign Language as their most commonly used form of communication (*n* = 33), 34% reported using speech or oral methods (*n* = 24), 11% reported using Contact Sign or Pidgin Signed English (*n* = 8), 6% reported using Signed English (*n* = 4), 1% reported using oral communication and ASL equally (*n* = 1), and 1% did not answer the question (*n* = 1). A

total of 83% of the participants reported attending a mainstream, public school (*n* = 59), 30% reported attending a residential school for the Deaf (*n* = 21), 6% reported attending a day program at a school for the Deaf (*n* = 4), 6% reported attending a private, mainstream school (*n* = 4), 3% attended an oral school for the Deaf (day program) (*n* = 2), and 1% attended a residential oral school for the Deaf (*n* = 1). These percentages total more than one hundred percent because participants could endorse multiple categories.

Fifty-four percent of the participants reported English as their first language (*n* = 38), and 41% reported English as their second language (*n* = 29). Thirty-four percent reported ASL as their first language (*n* = 24) and 41% reported it as their second language (*n* = 29). Additional languages reported included German (*n* = 1), Dutch (*n* = 1), Hebrew (*n* = 1), Spanish (*n* = 1), Spanish Sign Language (*n* = 1), Korean (*n* = 1), Pidgin Sign Language (Contact Sign) (*n* = 5), and Signed English (*n* = 4). Seventy-five percent of respondents reported that they felt like they were as good in English as they were in ASL (*n* = 53). Eighteen percent reported that they did not feel they were as good in English as in ASL (*n* = 13) and 5 respondents did not answer the question.

Participants were asked whether their mother and/or father were hearing, deaf or hard of hearing and whether or not they were fluent in ASL. Eighty-three percent reported having a hearing mother (*n* = 59), and 79% reported having a hearing father (*n* = 56). Sixteen percent had a deaf mother (*n* = 11), and 17% had a deaf father (*n* = 12) Two individuals reported having a hard of hearing father (3%) and one individual did not report. Twenty percent of the respondents had a mother who was fluent in ASL (*n* = 14) and 17% had a father who was fluent in ASL (*n* = 12). Thirteen percent of the respondents (*n* = 9) had both a deaf mother and deaf father and parents who were fluent

in ASL. Three percent of the respondents (*n* = 2) had parents who were deaf but not fluent in ASL.

In examining participants unwanted sexual experiences, it was reported that 77% had someone expose their sexual parts to them when they did not want them to (i.e. breasts, penis, or vagina) (*n* = 55). Eighty-five percent of the respondents indicated that someone touched their breasts, vagina, or bottom *over* their clothes when they did not want them to (*n* = 60). Eighty-two percent reported having someone touch their breasts, vagina or bottom *under* their clothes (*n* = 58). Finally, 73% reported that someone had forced them to have sex with them when they did not want to (*n* = 52).

Table 1 shows the description of the person who sexually victimized the participants. It is important to note that respondents who had multiple victimizations reported more than one perpetrator (*n* = 89). Of the perpetrators, 6 were reported to be female (6.7%) and the remaining were reported to be male or in some cases the gender was not identified.

Table 1.
Perpetrator of the unwanted sexual experiences on participants.

Variable	***n***	*%*
Male stranger	20	22.5
Male family friend	11	12.4
Father	8	9.0
Male sibling	6	6.7
Male friend	6	6.7
Boyfriend	6	6.7
Stepfather	5	5.6
Mother	4	4.5
Male relative	4	4.5
Date rape	4	4.5
Classmate	3	3.4
Husband	3	3.4
Female sibling	2	2.3
Female family friend	1	1.1
Male teacher	1	1.1
Male coach	1	1.1
Therapist	1	1.1
Male neighbor	1	1.1
Group home worker	1	1.1
Sibling boyfriend	1	1.1

Forty-five percent of the respondents reported having a single unwanted sexual experience (n = 32), 52% reported having recurring unwanted sexual experiences (n = 37), and two participants did not respond. Thirty-eight percent of the respondents reported that they received counseling for the unwanted sexual experience(s) (n = 27) and 59% reported that they did not receive counseling (n = 42). Two individuals did not respond to the question. Of those who sought counseling, nineteen respondents reported having a hearing counselor (70.4%), 6 respondents had a deaf counselor (22.2%), and 1 reported having a hard of hearing counselor (3.7%) and 1 respondent did not answer the question.

Procedures

After obtaining approval from the Institutional Review Board of the University of Missouri – Columbia, the online data collection began during the winter semester 2008. Before widespread data collection, a pilot study was completed once the survey was placed online to determine the readability and accuracy of the Internet site to screen for errors. Selected individuals who were not eligible for the study but who had a familiarity with deafness and Deaf culture participated in the pilot study to determine revisions that needed to be made.

The advertisements requesting volunteer participants was explicit as to the nature of the study and stated that deaf and hard of hearing women who have had unwanted sexual experiences were needed to complete the survey. Participants were recruited through advertisements of the study on electronic bulletin boards via the Internet. Internet listservs within a Midwestern state were selected for distribution, as well as national listservs whose primary focus is on deafness and Deaf-related issues. Each state has a

state agency whose mission is to serve deaf and hard of hearing individuals in their state. Those agencies received e-mails regarding the survey website with a request to forward the information to their listservs. Survey information was also e-mailed to college and universities serving deaf students with a request to post the survey website on their campus-wide information listservs. Two weeks and four weeks after the initial contact, additional requests via the Internet were sent to solicit additional participants for the survey.

Each listserv and individual received a general e-mail message that informed interested participants on the purpose of the study, the potential benefit to the Deaf community, and a request and appreciation for their willingness to forward the research survey to other potential participants. The e-mail described 1) who may participate in the study, 2) the purpose of the study, 3) the approximate time needed to complete the survey (20 – 30 minutes), 4) incentives for participation, and 5) the World Wide Web link to the consent form and survey. Surveymonkey.com was the Internet survey website utilized to develop and list the surveys and collect all of the responses. Using this website ensured the anonymity of the respondents. However, the informed consent included information that confidentiality cannot be ensured because the transmission of online data is not secure. Participants were informed that once the information was received by the researcher that confidentiality would not be breached.

After reading the informed consent, participants had the option of proceeding to take the survey as a result of their acceptance of the informed consent or leaving the survey without completing it. The survey included questions about demographic information and scales that measured coping strategies, psychological distress and life

satisfaction. In an attempt to separate invalid and valid responses to the survey, two items were placed in the survey that participants responded to which include: “Please do not respond to this item” and “Please respond 1 to this item.”

Contact or identifying information was not collected from participants. At the completion of the survey, information regarding the availability of the summary of findings was included so that participants would have the chance to follow-up on the results once the analysis had been completed. In addition, participants who completed the survey received contact information for the researcher and a comprehensive list of resources and information regarding deafness and victimization.

The announcement included a link to the survey at Survey Monkey, an online survey service that compiles responses. The survey consisted of six sections: (1) Informed Consent Form (see Appendix B), (2) Demographic Information (see Appendix C), (3) Brief Symptom Inventory (current) (see Appendix D), (4) Coping Strategies Inventory (see Appendix E), (5) Brief Symptom Inventory (past – at the time of the unwanted sexual experience(s) (see Appendix F), and (6) Satisfaction With Life Scale (see Appendix G). After completing the survey, participants were debriefed about the study and were provided various resources throughout the United States that focus on services to deaf and hard of hearing women who have been sexually victimized. The survey also contained a prompt that informed all participants about a crisis line number called Deafline Missouri (a statewide crisis line for deaf individuals contains nationwide resources and that is accessible nationwide) where they could receive support and referrals to mental health centers in their area if needed.

Measures

Demographic Questionnaire

A demographic questionnaire was used to obtain background information from the participants. Several items assessed participants' demographic information and other characteristics including self-identification of range of hearing loss, age of onset of hearing loss, communication preference, current age, gender, sexual orientation, ethnic identity, income, and educational background. Participants were also asked to provide information about their sexual victimization (i.e. age of victimization, relationship to perpetrator, type of victimization, and duration). If the participant was sexually victimized more than one time either by the same perpetrator or by someone different, participants were given the opportunity to provide information regarding each victimization that occurred. (See Appendix C)

The Coping Strategies Inventory

Coping behaviors of deaf women who have been sexually victimized was assessed using The Coping Strategies Inventory (CSI; Tobin, Holroyd, & Reynolds, 1984). (See Appendix E). The CSI is a 72-item inventory that utilizes eight 9-item subscales to identify and measure various forms of coping strategies. Participants were asked to recall their sexual victimization and then to indicate the extent to which they used the specific responses listed to cope with the sexual victimization. If a participant was sexually victimized more than once, they were asked to consider only one and to indicate which victimization they were recalling. In the CSI, participant responses were recorded using a 5-point Likert scale format with ratings of 1 (*not at all*) to 5 (*very much*) that reflected the level to which each strategy was used to cope with the unwanted sexual

experience. Scaled items in each factor were totaled with high scale scores which indicated a more frequent use of a particular coping response. Six subscales from the CSI have been chosen for this study: Problem Avoidance, Social Withdrawal, Cognitive Restructuring, Expressing Emotions, Problem-Solving and Social Support. Problem avoidance is associated with efforts not to deal with a problem (i.e. “I wished that the situation would go away or somehow be over with.”). Social withdrawal is identified as desiring to distance oneself from the problem and people who might be in a position to help with the problem (i.e. “I avoided my family and friends.”). Cognitive restructuring is linked to when an individual is working to think more positively about the problem (i.e. “I look at things in a different light and tried to make the best of what was available.”). Expressing emotions involves dealing with a problem by expressing one’s emotions (i.e. “I let my emotions go.”). Problem-solving is when an individual is taking specific steps to solve the problem (i.e. “I made a plan of action and followed it.”). And, support-seeking involves an individual actively seeking support from others (i.e. “I talked to someone about how I was feeling.”)

In terms of the reliability and validity of this measure, Tobin, Holroyd, Reynolds, and Wigal (1989) reported initial internal covariate alpha coefficients for the primary scale that ranged from .71 to .94, with 2-week test-retest reliability coefficients ranging from .67 to .83. CSI scores have also been found to predict depressive symptoms for people who are experiencing stressful conditions (Tobin et al, 1984)

Brief Symptom Inventory

The psychological distress levels of deaf women who completed the survey were assessed by using the Brief Symptom Inventory (BSI; Derogatis, 1993) (See Appendices

D & F). Respondents to the survey were asked to complete the BSI twice. The first time respondents completed the BSI during the survey, they were asked to report their level of distress during the past week. The second time respondents completed the BSI during the survey they were asked to report their level of distress that they remember having at the time of the unwanted sexual experience(s).

The BSI is a 53-item self-report scale that measures nine symptom dimensions. Participant's current psychological symptom status will be assessed using three out of the nine subscales: Depression (6 items), Anxiety (6 items) and Hostility (5 items). Depression (DEP) is associated with signs and symptoms of clinical depressive symptoms (i.e. dysphoric affect and mood, loss of energy, and loss of interest in life activities). Anxiety (ANX) is reflective of symptoms associated with clinical manifestations of anxiety (i.e. restlessness, nervousness, and tension). Hostility (HOS) is associated with hostile behavior that could include thoughts, feelings and actions (i.e. irritability, annoyance, frequent arguments, and an urge to break things). Participants will be asked to rate how much they have had symptoms "in the past 7 days including today" on a 5-point Likert scale. The scale will be used to determine the participants' current level of depression, anxiety and hostility based upon their response (0 = *not at all* to 4 = *extremely*). High mean scores would indicate high levels of psychological distress and low mean scores would indicate low levels of psychological distress.

The BSI has high internal consistency with Cronbach's alphas of .71 to .85, in addition two-week test-retest reliability .68 to .91. (Derogatis & Melisaratos, 1983). The Minnesota Multiphasic Personality Inventory (MMPI) has been used to assess convergent

validity of the BSI (Boulet & Boss, 1991). Correlations between the BSI and the MMPI ranged from .55 to .80.

Satisfaction With Life Scale

Level of psychological well-being of participants was assessed using the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) (See Appendix G). The SWLS consists of five statements (i.e. "In most ways my life is close to ideal") that participants responded to that ask their level of agreement using a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Items in the SWLS are meant to identify global satisfaction rather than satisfaction in specific areas. The SWLS score ranges from 5 to 35 with a high score indicating better overall psychological well-being.

Diener et al. (1985) reported a coefficient alpha of .87 for the SWLS and a two-week test-retest stability coefficient of .82. Additional testing of the SWLS' psychometric properties provide evidence that the scale scores are valid across cultures (Pavot & Diener, 1993). Construct validity for the SWLS was established through significant correlations in the expected direction with the PANAS positive affect subscale (r= .44), the PANAS negative affect subscale (r= -.48), and the Multidimensional Personality Questionnaire's positive affectivity (r= .47) (Pavot & Diener, 1993).

Statistical Analysis

Data analyses consisted of various descriptive and multivariate statistical techniques. Frequency and descriptive analyses were used to analyze demographic information. Preliminary analyses were completed to determine the normality of the data based upon the demographic information and each of the research variables. Total scale scores were calculated for the CSI, BSI (past and current), and SWLS using the Statistical

Package for the Social Sciences (SPSS; Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). Means, standard deviations and reliability coefficients were computed for each of the four scale scores. Bivariate correlations were completed to analyze intercorrelations among the measured variables. Multiple regressions were used to examine the effects of the six coping strategies (problem-solving, cognitive-restructuring, expressing emotions, social support, problem avoidance, and social withdrawal) on each of the criterion variables (past and present psychological distress and life satisfaction).

Hypotheses

It was expected that problem-focused (problem-solving, cognitive-restructuring, and problem avoidance) and emotion-focused (expressing emotions, social support, and social withdrawal) coping strategies would be statistically significant predictors of past and present psychological distress and life satisfaction for deaf women who had reported a previous unwanted sexual experience. Specifically, the following three hypotheses were investigated.

Hypothesis #1: The coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in psychological distress at the time of the unwanted sexual experience(s). Specifically, problem avoidance and social withdrawal will positively relate to past psychological distress and problem-solving, cognitive restructuring, expressing emotions and social support will negatively relate to past psychological distress.

Hypothesis #2: The coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would

predict significant variance in current psychological distress. Specifically, problem avoidance and social withdrawal will positively relate to current psychological distress and problem-solving, cognitive restructuring, expressing emotions and social support will negatively relate to current psychological distress.

Hypothesis #3: The coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in overall life satisfaction. Specifically, problem avoidance and social withdrawal will negatively relate to life satisfaction and problem-solving, cognitive restructuring, expressing emotions and social support will positively relate to life satisfaction.

CHAPTER FOUR

RESULTS

This chapter presents the results of the statistical analyses. First, the data screening will be outlined and the data will be examined to determine if it met the multivariate assumptions. Next, the descriptive statistics and the bivariate correlations among the measured variables are presented. Finally, the main analyses consisting of standard multiple regressions were performed to test the study's hypotheses. Specifically, three separate multiple regressions were conducted. The regression models included six predictor variables (i.e., problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support) and three criterion variables (i.e., past psychological distress, current psychological distress, and life satisfaction).

Data Screening and Multivariate Assumptions

Prior to conducting the statistical analyses, 125 participant surveys were initially screened to remove 54 surveys that contained over fifty-percent missing data (42 surveys) or who had responded incorrectly to the validity item (12 surveys). While surveys containing fifty-percent missing data were excluded; however, sufficient information was provided in three of these surveys, so they were included in the sample. Also, data were screened to eliminate participants whose unwanted sexual experience(s) had occurred within the last 12 months (2 surveys). Surveymonkey contained safeguards to protect against duplicate data. Additionally, each survey was reviewed to eliminate duplicate data by checking the assigned computer number per computer and eliminated duplicates (4 surveys).

Descriptive statistics and correlations were computed on the remaining 71 surveys for all of the variables. Of the remaining 71 surveys, there were no data values for the measured variables that were missing or out-of-range. Skewness and kurtosis were examined to determine distributional shapes that departed from normality. Scatterplots were also completed on the measured variables to determine the variable relationship and linearity. It was determined that no additional surveys needed to be removed after completing scatterplots of the residuals against the predicted values from the models. All of the data fell within three times the standard error of each measured variable. The scatterplots reflected the homoscedasticity of the measured variables. Cronbach's alpha was evaluated to determine how well the variables measured the same latent construct. All of the measured variables were found to have good reliability (Cronbach's alpha .65 - .94).

Means, Standard Deviations, Ranges and Cronbach's Alpha for the Study's Variables

Table 1 presents the means, standard deviations, ranges and Cronbachs' alpha for each of the scale scores in the present study. The three BSI subscales were highly correlated with each other for both current and past distress. Therefore, these subscales were combined to create a 17-item distress scale for both current and past psychological distress.

Table 2.
Means, Standard Deviations, Ranges and Cronbachs' Alpha for the Study's Variables.

Variables	Mean	*SD*	*Cronbach's alpha*	Range	*N*
CSI - Problem Avoidance	2.91	.77	.67	1.22 – 4.11	71
CSI - Social Withdrawal	3.01	1.07	.89	1.00 – 4.89	71
CSI - Problem Solving	2.55	.67	.65	1.00 – 4.56	71
CSI - Cognitive Restructuring	2.48	.81	.82	1.11 – 4.44	71
CSI - Expressing Emotions	2.45	.75	.76	1.00 – 4.22	71
CSI - Social Support	2.38	1.04	.89	1.00 – 5.00	71
BSI - current	2.72	1.02	.93	1.00 – 4.25	68
BSI - past	2.05	.80	.94	1.00 – 4.71	71
Satisfaction with Life	4.35	1.64	.92	1.20 – 6.80	71

Note. CSI = Coping Strategies Inventory; BSI = Brief Symptom Inventory

Bivariate Correlations among the Study's Variables

Table 2 presents the correlations among the variables in the study. An analysis of the correlation matrix revealed several significant correlations. The strength of observed correlations are presented in accordance to the standards set forth by Cohen (1988), such that strong correlations are those between |.50| and |1.00|, medium correlations are those falling between |.30| and |.49|, and small correlations are those falling between |.10| and |.29|.

Table 3.
Bivariate Correlations among the Measured Variables.

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. CSI - Problem Avoidance									
2. CSI - Social Withdrawal	.35**								
3. CSI - Problem-Solving	-.11	-.10							
4. CSI - Cognitive-Restructuring	.25*	-.14	.67**						
5. CSI - Expressing Emotions	.13	-.21*	.52**	.60**					
6. CSI - Social Support	-.08	-.63**	.47**	.58**	.62**				
7. BSI - current	.08	.47**	-.21*	-.18	-.12	-.35**			
8. BSI - past	.16	.58**	-.01	-.21*	.00	-.44**	.41**		
9. Satisfaction with Life	.03	-.39**	.24*	.32**	.35**	.41**	-.46**	-.13	

Note. *$p < .05$; **$p < .01$; CSI = Coping Strategies Inventory; BSI = Brief Symptom Inventory

Strong correlations were found between several variables. Problem-solving was positively correlated with both cognitive restructuring and expressing emotions (*r*s = .65 and .52, respectively). Cognitive restructuring was associated with expressing emotions and social support (*r*s = .60 and .58, respectively). Expressing emotions was positively related to social support (*r* = .62), and social withdrawal was positively associated with past psychological distress (r = .57). Finally, social withdrawal was negatively correlated with social support (r = -.63).

Medium correlations found included the following: 1) problem avoidance was positively associated with social withdrawal (r = .35), 2) social withdrawal was positively correlated with current psychological distress (r = .47) and negatively correlated with life satisfaction (r = -.39), 3) problem-solving was positively correlated with social support (r = .47), 4) cognitive restructuring was positively associated with satisfaction with life (r = .31), 5) expressing emotions was positively related to satisfaction with life (r = .35), 6) social support was negatively correlated with current and past psychological distress (r = -.35 and -.44, respectively) and positively associated with life satisfaction (r = .41), and 7) current psychological distress were positively correlated with past psychological distress (r = .41) and negatively related with satisfaction with life (r = -.46).

Though modest in magnitude, several other statistically significant correlations emerged including the following: 1) problem avoidance was positively correlated with cognitive-restructuring (r = .25), 2) social withdrawal was negatively associated with expressing emotions (r = -.21), 3) problem-solving was negatively related with current psychological distress (r = -.21) and positively correlated with satisfaction with life (r = .24), and 4) cognitive-restructuring was negatively associated with past psychological distress (r = -.21).

Testing the Hypotheses

Hypotheses 1 through 3 were examined with a series of standard multiple regressions to determine if the coping strategies significantly predict: 1) past psychological distress, 2) current psychological distress, and 3) overall life satisfaction. There were three standard multiple regressions conducted for each criterion variable (i.e., past psychological distress, current psychological distress and satisfaction with life).

Results from these regressions are presented separately by hypotheses in Tables 4 through 6.

Hypothesis 1

Hypothesis 1 predicted that problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in past psychological distress. Specifically, problem avoidance and social withdrawal were expected to be positively related, and problem-solving, cognitive restructuring, expressing emotions and social support were expected to be negatively related to past psychological distress. As shown in Table 4, the coping strategies produced a statistically significant effect ($F_{6,67} = 8.20$, $p<.001$). Specifically, social withdrawal, cognitive-restructuring, and expressing emotions significantly predicated 45% of the variance (39% adjusted) of the variability in past psychological distress. Standard regression coefficients of the individual predictors indicated that high levels of social withdrawal ($\beta = .35$, $p < .05$) and expressing emotions ($\beta = .40$, $p < .01$) were related to high levels of psychological distress at the time of the unwanted sexual experience(s), and high levels of cognitive-restructuring ($\beta = -.32$, $p < .05$) were related to low levels of past psychological distress. Problem avoidance ($\beta = .07$), problem-solving ($\beta = .21$), and social support ($\beta = -.38$) had no significant effect on psychological distress at the time of the unwanted sexual experience(s).

Table 4.

Multiple Regression of Coping Strategies Predicting Past Psychological Distress.

Criterion Variable	Predictors	B	SEB	β	Sig.
Past Psychological Distress	1. Problem Avoidance	.09	.15	.07	.56
	2. Social Withdrawal	.34	.14	.35	.02*
	3. Problem-Solving	.32	.21	.21	.14
	4. Cognitive-Restructuring	-.40	.20	-.32	.04*
	5. Expressing Emotions	.55	.19	.40	.01**
	6. Social Support	-.37	.18	-.38	.08

Note. $R = .67$, $R^2 = .45$, *Adj.* $R^2 = .39$; $N = 71$; $^{**}p < .01$; $^{*}p < .05$

Hypothesis 2

Hypothesis 2 predicted that problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in current psychological distress. Specifically, problem avoidance and social withdrawal were expected to be positively related and problem-solving, cognitive restructuring, expressing emotions and social support were expected to be negatively related to current psychological distress. As shown in Table 5, the coping strategies produced a statistically significant effect ($F_{6,70} = 3.90$, $p<.001$). Specifically, social withdrawal predicated 27% of the variance (20% adjusted) of the variability in current psychological distress. Standard regression coefficients of the individual predictors indicated that high levels of social withdrawal ($\beta = .51$, $p < .01$) was related to high levels of current psychological distress. Problem avoidance ($\beta = -.15$), problem-solving ($\beta = -.25$), cognitive-restructuring ($\beta = .01$), expressing emotions ($\beta = .15$), and social support ($\beta = -.03$) had no significant effect on current psychological distress.

Table 5.

Multiple Regression of Coping Strategies Predicting Current Psychological Distress.

Criterion Variable	Predictors	B	SEB	β	Sig.
Current Psychological Distress	1. Problem Avoidance	-.15	.14	-.15	..27
	2. Social Withdrawal	.38	.12	.51	.00**
	3. Problem-Solving	-.29	.19	-.25	.13
	4. Cognitive-Restructuring	.01	.18	.01	.95
	5. Expressing Emotions	.16	.16	.15	.34
	6. Social Support	-.02	.16	-.03	.88

Note. . $R = .52$, $R^2 = .27$, *Adj.* $R^2 = .20$; $N = 68$; $^{**}p < .01$

Hypothesis 3

Hypothesis 3 predicted that problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in overall satisfaction. Specifically, problem avoidance and social withdrawal were expected to be negatively related and problem-solving, cognitive restructuring, expressing emotions and social support were expected to be positively related to life satisfaction. As shown in Table 6, the coping strategies produced a statistically significant effect ($F_{6,70} = 3.62$, $p<.01$). Specifically, social withdrawal predicated 25% of the variance (18% adjusted) of the variability in overall satisfaction with life. Standard regression coefficients of the individual predictors indicated that high levels of social withdrawal ($\beta = -.39$, $p < .05$) were related to low levels of satisfaction with life. Problem avoidance ($\beta = .14$), problem-solving ($\beta = .09$), cognitive-restructuring ($\beta = .08$), expressing emotions ($\beta = .18$), and social support ($\beta = -.03$) had no significant effect on satisfaction with life.

Table 6.

Multiple Regression of Coping Strategies Predicting Satisfaction with Life.

Criterion Variable	Predictors	B	SEB	β	Sig.
Satisfaction with Life	1. Problem Avoidance	.29	.28	.14	.32
	2. Social Withdrawal	-.60	.25	-.39	.02*
	3. Problem-Solving	.21	.39	.09	.60
	4. Cognitive-Restructuring	.16	.36	.08	.66
	5. Expressing Emotions	.39	.34	.18	.25
	6. Social Support	-.04	.32	-.03	.90

Note. . $R = .50$, $R^2 = .25$, *Adj.* $R^2 = .18$; $N = 71$; $*p < .05$

Summary

In summary, as shown in Tables 3 through 5, all of the regressions resulted in some statistically significant results. Therefore, all three hypotheses regarding the prediction of the coping strategies on current or past psychological distress and satisfaction with life were supported. However, problem avoidance, problem-solving and social support did not significantly predict psychological distress (past or current) or satisfaction with life. Furthermore, cognitive-restructuring and expressing-emotions did not contribute significant variance in current psychological distress or satisfaction with life. These results are discussed in detail in the following section.

CHAPTER 5

DISCUSSION

This chapter begins with a summary of the findings from Chapter 4. The main findings will be explored within the context of the current literature base. Second, the limitations of this study including suggestions of additional areas in need of further research are presented. Finally, the clinical implications for counseling psychologists and suggestions for future research will be discussed.

Summary of Research Hypotheses

A significant amount of literature exists that substantiates that unwanted sexual experiences significantly affect an individual's psychological health. However, there is no research exploring the influence of unwanted sexual experiences among deaf women, specifically examining the impact of these experiences on psychological distress, both after the experience and later in life. Nor is there research examining the victim's overall life satisfaction. The present work identifies which coping strategies affect levels of psychological distress and life satisfaction.

Frazier et al (2005) completed two studies assessing how coping strategies mediate the relations among perceived present and past control and post-assault distress in female sexual assault survivors. The second part of their study looked at the results of nonrecent survivors of sexual assault and found that coping strategies mediated the relations among the measures of past and present control and distress. The present study of deaf women is the first to examine if problem-focused (problem-solving, cognitive-restructuring, and problem-avoidance) and emotion-focused (expressing emotions, social

support, and social withdrawal) coping strategies predict psychological health (past and current) and satisfaction with life.

Specifically, the present study sought to investigate three research hypotheses. The first hypothesis was that the coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in psychological distress at the time of the unwanted sexual experience(s). Specifically, problem avoidance and social withdrawal would positively relate to past psychological distress and problem-solving, cognitive restructuring, expressing emotions and social support would negatively relate to past psychological distress.

The second hypothesis predicted that the coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in current psychological distress. Specifically, problem avoidance and social withdrawal would positively relate to current psychological distress and problem-solving, cognitive restructuring, expressing emotions and social support would negatively relate to current psychological distress.

And finally, the third hypothesis predicted that the coping strategies problem avoidance, social withdrawal, problem-solving, cognitive-restructuring, expressing emotions, and social support would predict significant variance in overall life satisfaction. Specifically, problem avoidance and social withdrawal would negatively relate to life satisfaction and problem-solving, cognitive restructuring, expressing emotions and social support would positively relate to life satisfaction.

Findings of the Study

Several significant correlations emerged between the study variables. There were several strong positive correlations. First, there were strong positive correlations found with problem-solving, utilizing both cognitive restructuring and expressing emotions (*r*s = .646 and .515, respectively). Both of these relations are reasonable since, as individuals effectively problem-solve, they may be finding new ways to think about the problem or crisis they are managing. Also, as they problem-solve, they may tend to express their feelings more than they would when not faced with a problem. Strong positive correlations were found with cognitive restructuring and between both expressing emotions and social support (*r*s = .599 and .583, respectively). This correlation may show that, as individuals think differently about their unwanted sexual experiences, they talk to others about their feelings and seek out additional support from others. This correlation is supported in the literature (Frazier et al, 2005).

There was also a strong positive correlation between expressing emotions and social support (*r* = .622). As previously stated, as individuals feel more comfortable talking about their emotions they seek out additional support from others. And finally, a strong correlation was found between social withdrawal and past psychological distress (r = .567). This correlation shows that deaf women who have been victims of unwanted sexual experiences withdraw from others, and subsequently their levels of psychological distress significantly increase. However, social withdrawal was strongly negatively correlated with social support (r = -.629). This correlation seems to suggest that as deaf women withdraw from others the amount of support they receive decreases which is consistent with the literature for hearing women (Folkman, Lazarus, Dunkel-Schetter,

DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen, & DeLongis, 1986, Frazier et al., 2005, 1993; Ullman, 1996; Arata, 1999; Filipas, 2006; Schroeder, 2006; Read, 2001).

Moderate, positive correlations were found between problem avoidance and social withdrawal (r = .350). This finding shows that, as deaf women avoid their problems, they tend to withdraw from others which answers one of the research questions. Also, social withdrawal was positively correlated with current psychological distress (r = .465). This finding shows that as one withdraws from others, it will impact their levels of psychological distress. And finally, social withdrawal negatively correlated with life satisfaction (r = -.385), which would suggest that, as deaf women increase their separation from others, their satisfaction with life is decreasing. This finding only serves to reinforce the need for additional culturally and linguistically appropriate social and support-related services for deaf women who have been victims of unwanted sexual experiences. Problem-solving was moderately, positively correlated with social support (r = .469). This shows that as deaf women actively problem-solve their social support increases. Increasing problem-solving skills among deaf individuals could serve to increase their ability to seek out additional support services which would help hearing providers to recognize the significance of the need for additional services for deaf individuals.

Cognitive restructuring was positively correlated with life satisfaction (r = .315). This finding is consistent with the literature for other populations (Frazier et al., 2005, 1993). It would seem that as deaf women think about their problems differently their satisfaction with life increases. Expressing emotions was also moderately, positively correlated with life satisfaction (r = .354)

Social support was negatively correlated with current and past psychological distress (r = -.351 and -.443, respectively). This finding suggests that as social support increases for deaf women, both their current and past psychological distress, decreases. This finding has significant implications for those who provide support to deaf women who have been victims of unwanted sexual experiences. Support services are crucial to decreasing the psychological distress that these victims experience. And social support was moderately, positively correlated with life satisfaction (r = .407) which suggests that, as their social support increases, their overall satisfaction with life increases. And finally, current psychological distress was positively correlated with past psychological distress (r = .411) and negatively correlated with life satisfaction (r = -.463). These correlations show that, as current and past distress increase, satisfaction with life decreases. In order to increase the life satisfaction of deaf women who have been victims of unwanted sexual experiences, it is essential to decrease the psychological distress associated with these experiences.

Though more modest, several other statistically significant correlations |.20| emerged. Problem avoidance was positively correlated with cognitive-restructuring (r = .249). This would suggest that, as deaf women avoid their problems, they may also be changing the way they think about their problems. This finding may suggest that these individuals may be avoiding the problem because they believe there is nothing they can do to alleviate the issue. Some possible explanations for this may be the lack of availability of support services that are culturally and linguistically appropriate for deaf women post-sexual trauma. A communication deficit between the deaf victim and her hearing family members may also result in a barrier to receiving support. It also could be

as a result of “learned helplessness” among deaf women who have had unwanted sexual experiences. Learned helplessness is a psychological condition in which the individual has learned to believe that they are helpless to manage a stressor in a particular situation.

Seligman (1975) developed the learned helplessness theory that depression happens as a result of an individual’s perceived absence of control over the outcome of an event or situation. Deaf victims of unwanted sexual experiences may avoid their problems because they believe they are helpless and therefore, on their own, must re-structure their thinking about their problems. This may be an adaption made necessary as a result of their hearing loss and the lack of culturally and linguistically appropriate services available to help them.

Social withdrawal was negatively correlated with expressing emotions (r = -.212). This finding suggests that as deaf women withdraw from others their ability to express their feelings decreases. The absence of social support through social withdrawal would reduce the amount of emotional expression to others. It may also be that there are not enough social opportunities available for deaf women to communicate with others, which places them in a forced situation to withdraw socially. They may not have a choice due to the limited number of individuals with whom they can communicate.

Problem-solving was negatively correlated with current psychological distress (r = -.210) and positively correlated with life satisfaction (r = .241). Therefore, as deaf women report increasing their problem-solving, their current level of distress reduces and their satisfaction with life increases. This finding is very encouraging and supports the fifth research question posed in this study.

That is, consistent with prior research, as individuals improve their problem-solving skills, the more they reported experiencing reduced distress ((Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen, & DeLongis, 1986, Frazier et al., 2005, 1993). And finally, cognitive-restructuring was negatively correlated with past psychological distress (r = -.213). This finding shows that as deaf women think about their problems differently their psychological distress, specifically in this correlation as it relates to the distress more closely felt at the time of the unwanted sexual experience, they were able to decrease their psychological distress.

Contrary to expectations, there was no significant relation between problem avoidance concerning past or current psychological distress nor did it seem to significantly impact the individuals overall satisfaction with life. This may be due to the previously described learned helplessness. These results highlight the importance of expanding the scope of the current research examining problem avoidance among deaf individuals. According to the results of the present study, researchers need to place more emphasis on the potential role that social withdrawal coping may play in increasing deaf individuals psychological distress.

Researchers also need to take a closer look at the potential resiliency role effective problem-solving strategies have in alleviating psychological distress. For decades, many researchers have focused on problem-solving as a coping strategy; however, no research has been conducted specifically targeting problem-solving among deaf individuals. Research is also needed to identify risk and protective factors for deaf women who have been sexually victimized. The results in the current study provide initial empirical evidence to educate clinicians on the importance of providing culturally

and linguistically appropriate services for sexually victimized deaf individuals is essential.

Limitations of the Present Study

The present study has undeniable benefits concerning its contribution to current literature regarding deaf women as victims of unwanted sexual experiences; however, the present study has some limitations. A significant limitation of the current study lies in the population being sampled. This was a web-based study provided in written English, which both eliminated deaf women who did not have access to a computer, as well as deaf women whose first language was American Sign Language (ASL) and did not have the English skills to continue with the research. This contributed significantly to the recidivism rate for the study. Perhaps providing this research in ASL would increase the number of deaf women eligible for this study.

A second limitation of the present study was that the deaf women in this study were reporting their current and past level of distress. The request for completing a survey to determine their level of distress at the time of the unwanted sexual experience(s) (past distress) may have influenced the results. It may have been difficult for participants to remember their level of distress at that time based upon how long ago the unwanted sexual experience occurred. Their answers may also have been influenced by the placement of the psychological distress assessment within the survey.

Finally, a third limitation was related to the number of usable surveys for this study. Due to the communication issues discussed above and the fact that deaf women represent a marginalized population, the amount of usable data was a limitation to the

study. Collecting data over a greater length of time may result in additional deaf women finding out about the survey and completing it.

Future Directions for Research

Based on the limitations listed above, one of the most important future directions for research lies in the undertaking of a longitudinal study which can track the psychological health and life satisfaction of deaf women who have had unwanted sexual experiences. Additional research using qualitative methods could add to our understanding of sexual victimization and the effect it has on deaf individuals. Research has clearly shown that sexual victimization is detrimental to psychological health. However, more research is needed to identify how it impacts deaf individuals, as well as the risk and protective factors associated with sexual victimization. Additionally, providing the research in both an English and ASL format would serve to increase the number of participants eligible for the study.

Implications for Clinical Practice

The findings in the present study support the need of a holistic, interdisciplinary approach to treating psychological distress among deaf women who have been sexually victimized. Specifically, mental health professionals need to educate themselves on how to provide culturally appropriate services to deaf individuals. The following suggestions are made to apply the results of the present study to practice.

First, for mental health professionals who work with deaf individuals, the results are helpful for treatment of clients who have had unwanted sexual experiences. Being aware of the need for deaf individuals to maintain social connections when dealing with sexual victimization can help to reduce their psychological distress. It is essential to

maintain a resource list of local Deaf clubs, social service agencies who specifically work with individuals with a hearing loss, vocational rehabilitation, churches, organizations, and other professionals who work with the deaf.

Second, it is important to learn the most effective way to communicate with a deaf individual. When seeking services, a deaf individual should always be asked if they will need the use of an interpreter. Hearing mental health professionals can gain additional credibility when working with deaf individuals if they educate themselves on how to work with an interpreter. For example, it is important to understand that an interpreter's role is to ensure that effective communication happens. Sign language interpreting is a professional job and should only be performed by certified and licensed professionals. Family members, friends and co-workers should never be used as interpreters. In a one on one situation, the interpreter should be directly beside or slightly behind the hearing individual so that the interpreter is easily visible to the deaf individual. By educating themselves on how to provide quality clinical services to deaf individuals, clinicians can educate deaf individuals about coping strategies that will reduce their psychological distress and increase their satisfaction with life. The present study provides empirical support that interventions specifically centering on educating deaf individuals about specific coping strategies could help to reduce psychological distress and increase life satisfaction. Use of positive coping strategies (problem-solving, cognitive-restructuring, expressing emotions and social support), as opposed to negative coping strategies (problem avoidance and social withdrawal) could serve to assist deaf individuals in managing a variety of problems and crises throughout their lifetime.

Conclusion

This study elucidates the impact that coping strategies have on psychological distress and overall life satisfaction among deaf women who have had unwanted sexual experiences in their lifetime. The current study identified coping strategies that may provide some protection against symptoms of psychological distress associated with sexual victimization. More specifically, this study looked at the potential protective effects of positive and negative coping and how it predicts psychological well-being and overall life satisfaction. Specifically, all of the regressions resulted in some statistically significant results. Therefore, all three hypotheses regarding the prediction of the coping strategies on current or past psychological distress and satisfaction with life were supported. However, problem avoidance, problem-solving and social support did not significantly predict psychological distress (past or current) or satisfaction with life. Furthermore, cognitive-restructuring and expressing-emotions did not contribute significant variance in current psychological distress or satisfaction with life. Much more research is needed in order to fully understand sexual victimization and the effect it has on deaf individuals, as well as the risk and protective factors associated with sexual victimization among the deaf population.

Appendix A

Definition of Terms

American Sign Language: The language of signs utilized by many Deaf people in the United States. It is a manual/visual language with its own morphology, syntax, and semantic structure different from verbal and written languages (Friedman, 1977).

Childhood Sexual Abuse (CSA): In this study, is defined as sexual touch prior to age 18 with someone at least five years older than the participant. Although unwanted sexual contact can occur without the age difference.

Deaf: Individuals whose hearing loss is in the moderate to profound range (greater than 56 dB).

Disability: According the Americans with Disabilities Act of 1990, a disability is"(a) a physical or mental impairment that substantially limits one or more of the major life activities of such individual; (b) a record of such an impairment; or (c) being regarded as having such an impairment."

Hard of Hearing: Persons whose hearing loss is in the slight to mild range (27 to 55 dB) (Paul & Jackson, 1993).

Hearing: Persons whose hearing is within normal limits (less than 27 dB) (Paul & Jackson, 1993).

Hearing loss: An auditory loss greater than 27 decibels.

Psychological well-being/health: For purposes of this study, psychological well-being (or psychological health) will refer to an individuals' interpretation of their own life satisfaction, their self-esteem, and their level of anxiety and depression. A participant reporting good psychological health will have low distress (anxiety, depression and

hostility) and high well-being. A participant reporting poor psychological health will have high levels of distress and low well-being.

Sexual abuse: Inappropriately exposing or participating an individual to sexual contact, activity, or behavior. Sexual abuse includes oral, anal, genital, buttock, and breast contact. It also includes the use of objects for vaginal or anal penetration, fondling, or sexual stimulation.

Sexual victimization: For purposes of this study, sexual victimization will include any unwanted sexual contact or event that is either threatened or forced. It may or may not include intercourse and could occur during childhood (by a peer or adult) or during adulthood.

Unwanted sexual experience(s): For this study, this term will be used to refer to any unwanted sexual contact either threatened or forced either through exposure or touch that occurs over or under clothing. It may or may not include intercourse and could occur during childhood (by a peer or adult) or during adulthood.

Appendix B

CONSENT TO TAKE PART IN A RESEARCH STUDY

TITLE: The Relationship of Coping Strategies to Psychological Health among Sexually Victimized Deaf Women

This consent form is part of an informed consent process for a research study and it will give you information that will help you decide whether you want to volunteer for this research study. The information provided below will help you to understand what the study is about and what will happen during the course of the study.

If you have any questions at any time during the research study, please contact the principal researcher or the researcher's advisor as indicated below.

It you decide to take part in this research study, you will be asked to indicate on the secure website that has the survey for this study that you agree by selecting the "I agree" button after reading the consent form. You will not be giving up any legal rights by volunteering for this research study or by signing this consent form.

Why is this study being done?

Sexual victimization is a major problem that impacts millions of people each year. There is very little research that exists examining sexually victimization among deaf individuals. Research is needed for deaf and hard of hearing individuals to be able to identify what coping strategies are used by deaf individuals who have been sexually victimized and how it impacts their levels of distress and overall psychological well-being

The purpose of this questionnaire is to develop some understanding of coping strategies and levels of distress among deaf and hard of hearing women who have been sexually victimized at any time in their life. The survey will ask sensitive and personal questions. The survey asks questions about sexual experiences that you did not want. It does not matter if hearing or deaf people caused these unwanted sexual experiences. It is hoped that the survey will help educate hearing individuals about the Deaf community and sexual victimization. The survey will also serve to inform deaf and hard of hearing individuals about coping strategies used by deaf individuals and those strategies that may contribute to low levels of distress and high levels of psychological well-being.

Who may take part in this study? And who may not?

If you are a deaf or hard of hearing woman who has been sexually victimized within the last ten years, you are invited to participate in this survey. If you are uncomfortable

answering questions about your sexual victimization experiences, or feel that these questions will be upsetting to you, you should not participate in this survey.

What will you be asked to do if you participate in this research study?
Before answering the questions on the survey, you must first indicate that you agree to participate by selecting the "I agree" button on the bottom of this consent form. You will then be directed to the survey questionnaire where you will answer all of the questions honestly. You will click on the number or choice that is your answer. If there is no choice that fits what you want, then type in your response if there is an "Other" option. All of your responses are completely anonymous. You should clearly understand that the survey will ask you to recall past sexual victimization experiences. If you believe doing this survey will be too upsetting, you should not participate in this research.

The survey takes approximately 20 - 30 minutes to complete. You will occasionally find words underlined and the definition will be provided for you.

What are some of the difficulties you might experience if you take part in this study?

There are questions in this survey that will ask you about past sexual victimization. You may find the questions embarrassing or difficult to answer. Other than temporary discomfort associated with completing the survey, there are no risks associated with completing participating in this research.

What are some of the benefits to participating in this research?

You as an individual may receive no direct benefit for participating in this research study. However, is it hoped that the information gathered from all of the participants of this research study will yield information that would provide useful information for professionals working with sexually victimized deaf and hard of hearing individuals. It is also hoped that this research can be used to educate sexually victimized deaf and hard of hearing individuals on coping strategies that effect distress levels and overall psychological well-being.

Who can you contact if you have any questions associated with this research?
If you have any questions about this research, contact:

PRINCIPAL RESEACHER:
Stephanie Logan, M.B.A.
Dept. of Educational, School & Counseling Psychology
University of Missouri – Columbia
slogan@midamerica.net
573-445-5005 (TTY only)

RESEARCH ADVISOR:
Lisa Flores, Ph.D.
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573-884-9724

What are your rights if you decide to take part in this research study?

You understand that you have the right to ask any questions that you have about the research study. You understand that you should not agree to take part in this research study until all of your questions have been answered to your satisfaction. You understand that you have the right not to participate in this research or withdraw from completing the research survey at any time you feel is necessary without any penalty.

You have read this entire electronic informed consent form and you understand the information that has been provided. All of your questions about this form and this study have been answered.

- o I **agree** to take part in this research study.
- o I **do not agree** to take part in this research study.

Appendix C

Demographics

What birth date: Month_____ Year_____

Male _____ Female _____

Sexual Orientation (select one box)
- Heterosexual (Straight)
- Gay/Lesbian/Bi-Sexual
- Trans-Gender
- Trans-Sexual
- Other_____

Race (select one box)
- Black
- Asian American
- Asian/Pacific Islander
- Biracial
- White
- Native American
- Hispanic/Latino(a)
- Other or more than one of the above

What is your total annual household income? (select one box)
- Less than $20,000
- $20,000 - $34,999
- $35,000 - $49,999
- $50,000 - $74,999
- $75,000 - $99,000
- $100,000 or more

What is your current degree of hearing loss? (select one box)
- Mild (26-45 dB hearing loss)
- Moderate (46-65 dB hearing loss)
- Severe (66-85 dB hearing loss)
- Profound (86 dB hearing loss or more)

How old were you when your hearing loss occurred? _____

Primary Method of Communication (select one)
- Speech/Oral
- Signed English
- Contact Sign (PSE)
- American Sign Language

- Fingerspelling only
- Other method of communication _____

What kind of school did you attend?
- School for the Deaf
  - Residential
  - Day program
- Public - Mainstream
- Private – Mainstream
- Oral School for the Deaf
  - Residential
  - Day program

Do you consider ASL your first language and English your second language?
- Yes
- No

Do you think you are as good in English as you are in ASL?
- Yes
- No

How old were you when you first started learning ASL? _____

Was your mother hearing or deaf?
- Hearing
- Deaf
- Hard of hearing

Was your mother fluent in ASL?
- Yes
- No

Was your father hearing or deaf?
- Hearing
- Deaf
- Hard of hearing

Was your father fluent in ASL?
- Yes
- No

Has anyone ever exposed their sexual parts to you when you did not want them to (i.e. breasts, penis or vagina)?
- Yes
- No

Has anyone ever touched your breasts, vagina, or bottom over your clothes when you did not want them to?

- Yes
- No

Has anyone ever touched your breasts, vagina or bottom under your clothes when you did not want them to?

- Yes
- No

Has anyone ever forced you to have sex with them when you did not want them to?

- Yes
- No

Based upon your previous responses - were you sexually victimized by (check all that may apply):

- Mother
- Father
- Step-mother
- Step-father
- Female sibling
- Male sibling
- Other family member
  Please describe:_____
- Family friend (male or female)
- Teacher (male or female)
- Coach (male or female)
- Friend/peer (male or female)
- Stranger (male or female)
- Other non-family member
  Please describe:_____

Approximately when did the unwanted sexual experience occur?

Month/Year:_____

Was the unwanted sexual experience a single event or did it continue over time?

- Single event
- Recurring event

Did you ever receive counseling for the unwanted sexual experience(s)?

- Yes
- No

If yes, was the counselor:

- Deaf
- Hard of hearing
- Hearing

Was the counseling helpful?

- Yes
- No

If not, please describe what you do not think it was helpful.

_____
_____
_____
_____

What kinds of services do you think would be helpful for deaf individuals if they have been sexually victimized?

_____
_____
_____

Appendix D

Brief Symptom Inventory

INSTRUCTIONS:
You are going to read a list of problems and complaints that people sometimes have. For each one, tell me how much that problem has bothered or distressed you DURING THE PAST WEEK, including today. Please tell me whether each problem DURING THE PAST WEEK has bothered you not at all, a little bit, moderately, quite a bit, or extremely.

1. Nervousness or shakiness inside. (Choose one)
   Not at all = 1
   A little bit = 2
   Moderately = 3
   Quite a bit = 4
   Extremely = 5

2. Feeling easily annoyed or irritated. (Choose one)
   Not at all = 1
   A little bit = 2
   Moderately = 3
   Quite a bit = 4
   Extremely = 5

3. Thoughts of ending your life. (Choose one)
   Not at all = 1
   A little bit = 2
   Moderately = 3
   Quite a bit = 4
   Extremely = 5

4. Suddenly scared for no reason. (Choose one)
   Not at all = 1
   A little bit = 2
   Moderately = 3
   Quite a bit = 4
   Extremely = 5

5. Temper outbursts that you could not control. (Choose one)
   Not at all = 1
   A little bit = 2
   Moderately = 3
   Quite a bit = 4
   Extremely = 5

6. Feeling lonely. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

7. Feeling blue. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

8. Feeling no interest in things. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

9. Feeling fearful. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

10. Feeling hopeless about the future. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

11. Feeling tense or keyed up. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

12. Having urges to beat, injure, or harm someone. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3

Quite a bit = 4
Extremely = 5

13. Having urges to break or smash things. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

14. Spells of terror or panic. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

15. Getting into frequent arguments. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

16. Feeling so restless you could not sit still. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

17. Feelings of worthlessness. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

Appendix E

Coping Strategies Inventory

The purpose of this questionnaire is to find out how deaf women deal with sexual victimization. Please recall your past sexual victimization and indicate the extent to which you used the specific responses listed to cope with the sexual victimization. If you were sexually victimized more than once, please consider only one and indicate which victimization you are recalling.

Please read each item and determine the extent to which you used it in handling your sexual victimization.

1. Not at all
2. A Little
3. Somewhat
4. Much
5. Very much

1. I just concentrated on what I had to do next; the next step.
2. I tried to get a new angle on the situation.
3. I found ways to blow off steam.
4. I accepted sympathy and understanding from someone.
5. I slept more than usual.
6. I hoped the problem would take care of itself.
7. I told myself that if I wasn't so careless, things like this wouldn't happen.
8. I tried to keep my feelings to myself.
9. I changed something so that things would turn out all right.
10. I looked for the silver lining, so to speak; tried to look on the bright side of things.
11. I did some things to get it out of my system.
12. I found somebody who was a good listener.
13. I went along as if nothing were happening.
14. I hoped a miracle would happen.
15. I realized that I brought the problem on myself.

16. I spent more time alone.
17. I stood my ground and fought for what I wanted.
18. I told myself things that helped me feel better.
19. I let my emotions go.
20. I talked to someone about how I was feeling.
21. I tried to forget the whole thing.
22. I wished that I never let myself get involved with that situation.
23. I blamed myself.
24. I avoided my family and friends.
25. I made a plan of action and followed it.
26. I looked at things in a different light and tried to make the best of what was available.
27. I let out my feelings to reduce the stress.
28. I just spent more time with people I liked.
29. I didn't let it get to me; 1 refused to think about it too much.
30. I wished that the situation would go away or somehow be over with.
31. I criticized myself for what happened.
32. I avoided being with people.
33. I tackled the problem head-on.
34. I asked myself what was really important, and discovered that things weren't so bad after all.
35. I let my feelings out somehow.
36. I talked to someone that I was very close to.
37. I decided that it was really someone else's problem and not mine.
38. I wished that the situation had never started.
39. Since what happened was my fault, I really chewed myself out. .
40. I didn't talk to other people about the problem.
41. I knew what had to be done, so I doubled my efforts and tried harder to make things work.

42. I convinced myself that things aren't quite as bad as they seem.

43. I let my emotions out.

44. I let my friends help out.

45. I avoided the person who was causing the trouble.

46. I had fantasies or wishes about how things might turn out.

47. I realized that I was personally responsible for my difficulties and really lectured myself.

48. I spent some time by myself.

49. It was a tricky problem, so 1 had to work around the edges to make things come out OK.

50. I stepped back from the situation and put things into perspective.

51. My feelings were overwhelming and they just exploded.

52. I asked a friend or relative I respect for advice.

53. I made light of the situation and refused to get too serious about it.

54. I hoped that if I waited long enough, things would turn out OK.

55. I kicked myself for letting this happen.

56. I kept my thoughts and feelings to myself.

57. I worked on solving the problems in the situation.

58. I reorganized the way I looked at the situation, so things didn't look so bad.

59. I got in touch with my feelings and just let them go.

60. I spent some time with my friends.

61. Every time I thought about it I got upset; so I just stopped thinking about it.

62. I wished I could have changed what happened.

63. 1t was my mistake and I needed to suffer the consequences.

64. I didn't let my family and friends know what was going on.

65. I struggled to resolve the problem.

66. I went over the problem again and again in my mind and finally saw things in a different light.

67. I was angry and really blew up.

68. I talked to someone who was in a similar situation.

69. I avoided thinking or doing anything about the situation.

70. I thought about fantastic or unreal things that made me feel better.

71. I told myself how stupid I was.

72. I did not let others know how I was feeling.

Appendix F

Brief Symptom Inventory

INSTRUCTIONS:
Once again, you are going to read a list of problems and complaints that people sometimes have. For each one, tell me how much that problem bothered or distressed you IMMEDIATELY AFTER THE UNWANTED SEXUAL CONTACT, to the best of your recollection.. Please tell me whether each problem IMMEDIATELY AFTER THE UNWANTED SEXUAL CONTACT bothered you not at all, a little bit, moderately, quite a bit, or extremely.

1. Nervousness or shakiness inside. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

2. Feeling easily annoyed or irritated. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

3. Thoughts of ending your life. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

4. Suddenly scared for no reason. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

5. Temper outbursts that you could not control. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

6. Feeling lonely. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

7. Feeling blue. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

8. Feeling no interest in things. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

9. Feeling fearful. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

10. Feeling hopeless about the future. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

11. Feeling tense or keyed up. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

12. Having urges to beat, injure, or harm someone. (Choose one)
    Not at all = 1
    A little bit = 2

Moderately = 3
Quite a bit = 4
Extremely = 5

13. Having urges to break or smash things. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

14. Spells of terror or panic. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

15. Getting into frequent arguments. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

16. Feeling so restless you could not sit still. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

17. Feelings of worthlessness. (Choose one)
    Not at all = 1
    A little bit = 2
    Moderately = 3
    Quite a bit = 4
    Extremely = 5

Appendix G

Satisfaction With Life Scale

Directions. Below are five statements with which you may agree or disagree. Using the scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest with your response.

- 7 – Strongly agree
- 6 – Agree
- 5 – Slightly agree
- 4 – Neither agree nor disagree
- 3 – Slightly disagree
- 2 – Disagree
- 1 – Strongly disagree

_____ In most ways my life is close to ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

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VITA

Since 1995, Stephanie Logan has been the Executive Director of The L.E.A.D. Institute (**L**eadership through **E**ducation and **A**dvocacy for the **D**eaf). L.E.A.D. is a private, non-profit organization committed to meeting the needs of deaf, hard of hearing, late-deafened, and deaf/blind victims of crime across the state of Missouri. In 1996, Ms. Logan was responsible for establishing the first statewide 24-hour crisis line for individuals with a hearing loss, as well as for service providers working with victims with a hearing loss to call when in need of assistance. Ms. Logan is a late-deafened adult as a result of spinal meningitis over seventeen years ago and has spent most of that time developing and improving crisis intervention and mental health programs and services for individuals with a hearing loss. In 1992, Ms. Logan received her undergraduate degree from the University of Georgia. In 2002, she completed her Masters in Business Administration from William Woods University and shortly after entered the Ph.D. program in Counseling Psychology at the University of Missouri. Ms. Logan coordinated the establishment of the National Crisis Response Team for the Deaf in 2001. In addition to being a statewide and national speaker, Ms. Logan has several articles in her field. Ms. Logan is also the mother of five children.