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An Investigation of the Prevalence and Nature of Child Sexual Abuse Among the Deaf Population

Rachelle Hester

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AN INVESTIGATION OF THE PREVALENCE AND NATURE OF
CHILD SEXUAL ABUSE AMONG THE DEAF POPULATION

by

Rachelle Hester

A thesis submitted in partial fulfillment
of the requirements for the degree
of
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in
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ABSTRACT

An Investigation of the Prevalence and Nature of Child Sexual Abuse Among the Deaf Population

by

Rachelle Hester, Master of Science
Utah State University, 2002

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Department: Psychology

The purpose of this study was to investigate the prevalence rates and effects of child sexual abuse in both deaf and hearing individuals living in Utah. A total of 104 deaf and 69 hearing individuals responded to the survey. The survey inquired about participants’ experiences with sexual abuse and their mental health status.

The difference in rates of abuse between the two groups was not statistically significant. However, deaf individuals tended to be abused more often than hearing individuals. Deaf victims also experienced more severe forms of abuse and were abused more frequently than hearing victims. However, hearing victims experienced the use of force during abuse more often than deaf victims. The difference in mental health status between the deaf and hearing groups was not statistically significantly different. However, the difference between the total deaf group and the total hearing
group was statistically significant, the deaf group reporting more problems than the hearing group.
ACKNOWLEDGMENTS

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CHAPTER I
INTRODUCTION

Child sexual abuse is a serious problem warranting national attention. A recent national survey found that 27% of adult women and 16% of adult males reported having been sexually abused as children (Schultz, 1995). Children with disabilities are thought to be at a greater risk for sexual abuse than are children without disabilities (Sullivan & Knutson, 1998). Deaf children are believed to be victims of sexual abuse more often than both nondisabled children and children with other kinds of disabilities (Knutson & Sullivan, 1993; Sullivan, Vernon, & Scanlan, 1987). However, the research regarding sexual abuse of deaf children is in its infancy.

Child sexual abuse may be damaging both at the time of occurrence and in the long term (Westbury & Tutty, 1999). To some degree, the short-term effects of child sexual abuse vary depending on the developmental level of the child. Nonetheless, sexual abuse can cause children immediate physical problems, affect their cognitive abilities, and cause child victims to have emotional problems such as anxiety, nightmares, depression, guilt, and low self-esteem (Barnett, Miller-Perrin, & Perrin, 1997). As many as 60 different negative long-term effects have been recognized as a result of childhood sexual abuse (Reeker, Ensing, & Elliott, 1997). Although a range of presenting problems has been reported, there are many common symptoms among victims. Often victims experience symptoms of posttraumatic stress disorder (PTSD; Rowan & Foy, 1993; Schultz, 1995), feelings of shame and guilt (Barnett et al., 1997; Zupancic & Kreidler, 1998), interpersonal problems, inappropriate sexual knowledge,
emotional and behavior problems, suicidal ideation, and substance abuse (Barnett et al., 1997; Stevenson, 1999).

Several factors related to the nature of the abuse are thought to play a role in how traumatizing the sexual abuse is for a child. Research findings have consistently shown that long-term effects are more severe when force is used (Barnett et al., 1997; Schultz, 1995), when abuse is more severe (penetration as opposed to fondling; Barnett et al.; Mennen & Meadow, 1995; Schultz; Wyatt & Newcomb, 1990), and when sexual abuse is paired with other forms of child maltreatment (Barnett et al.). Increased negative effects have also been found when the perpetrator had a close relationship with the child (Barnett et al.; Wyatt & Newcomb), when there was a longer duration or increased frequency of abuse (Schultz), and if the child perceived the abuse as being severe (Barnett et al.). Other variables such as the age of the child when the abuse started (Nash, Zivney, & Hulsey, 1993; Schultz) and the number of perpetrators who abuse the child (Nash et al.) are thought to be important factors. However, the current research findings on the influence of these two variables tend to be fairly mixed (Barnett et al.).

Other factors related to what happens after the abuse have been found to influence the long-term effects of the abuse on the child. The response toward the victim when he or she tells about the abuse is thought to be important. Negative responses are associated with more negative outcomes, while positive responses are associated with better outcomes (Barnett et al., 1997; Wyatt & Newcomb, 1990). Increased social support is also thought to lessen the negative effects (Barnett et al.).
Court involvement and out-of-home placement are thought to be influential factors, but the influence of these two factors is unclear (Barnett et al.).

Deaf children face major communication barriers that may cause them to be very different from other children in their risk for sexual abuse and in their experience of it. About 90% of deaf children are born to hearing parents. Of these children, some will learn to speak, while others learn to sign. Those who learn to speak tend to be language delayed and have limited communication skills (Schirmer, 2001). The children who learn to sign tend to have parents who are not fluent in sign themselves (Schirmer). Deaf children who are sexually abused may not be able to “tell” for the common reasons children do not tell (i.e., fear, shame, and guilt), but also because the child may not have enough language or his or her parents do not know enough sexual sign language to understand when the child attempts to tell (Sullivan et al., 1987). Other family members, especially extended family, tend to be restricted in their communication with the deaf child. Also, other resources in the community (i.e., neighbors, doctors, friends) tend to have restricted communication with the deaf child. Thus, the deaf child is limited in his or her resources of people to tell (LaBarre, 1998).

Deaf children also have other unique circumstances. They tend to be naive about sexual norms and values when compared to hearing children. They do not understand sexual abuse issues nor do they understand reporting procedures as well as hearing children (Sullivan et al., 1987). This may be due to a difference in the amount of incidental learning (e.g., overhearing conversations about sex) that takes place as a deaf child grows up or to the limited communication of family members with the child.
Even though the Individuals with Disabilities Education Act (IDEA, 1997) calls for students to be served in the least restrictive environment (LEA), and many believe that means mainstreaming, deaf students are often sent to residential schools, settings thought to be a risk factor for sexual abuse (Sullivan et al.). Deafness is also comorbid with many other disorders (i.e., mental retardation, blindness), which may put children at additional risk for abuse or may influence their experience of the abuse.

Deaf victims of sexual abuse are also more complicated to treat than other victims. The deaf victim who does not sign may struggle to understand the counselor. For those who sign, the lack of a counselor who is fluent in American Sign Language (ASL) will require interpreters in their sessions. Interpreters seem to complicate the situation for both the therapist and the client (Sullivan et al., 1987). The counselor may not have an understanding of deaf culture and the many problematic issues that result as part of the culture. Deaf clients, even as adults, may not have the appropriate background knowledge and language to be able to discuss the abuse.

Although deaf children are thought to be sexually abused more often than their hearing counterparts and other children with disabilities, little research has been conducted regarding the prevalence of sexual abuse in the deaf population or the nature of the abuse they experience. In addition, how deaf survivors of sexual abuse are affected by the abuse has received little attention in the literature. Thus, the purpose of this study was to investigate these issues in the deaf population and make a comparison with the hearing population. One purpose of this study was to determine the prevalence rate of child sexual abuse among deaf people in Utah, using retrospective reporting, as
well as the nature of the abuse experienced. A second purpose was to examine the
effects of abuse on adult survivors of abuse. Communication issues that may differ for
deaf victims or are specific to deaf victims were also investigated in this study.
CHAPTER II
REVIEW OF THE LITERATURE

The Definition of Sexual Abuse

Until relatively recently, society did not recognize child sexual abuse as a serious problem. While mention had been made about the physical and psychological consequences of sexual abuse in the case-study literature dating back many decades, the seriousness of the problem was not brought to the attention of society until the end of the 1970s (Haugaard, 2000). Child sexual abuse was then believed to be a problem that warranted immediate attention (Gomes-Schwartz, Horowitz, & Cardarelli, 1990). In the mid 1980s, child sexual abuse was referred to as an epidemic, the consequences of which were conceptualized as the psychological equivalent of a disaster (Lusk & Waterman, 1986). Today, child sexual abuse continues to be seen as a serious problem, and there are many questions remaining such as: what is the best way to define child sexual abuse?; what is the prevalence of child sexual abuse generally and for special populations?; and what are the effects of abuse?

As society’s awareness of child sexual abuse has increased, controversy over how to define it has also increased. Each word of the term “child sexual abuse” has caused uncertainty in the definition. Determining exactly who is and is not a child has proven to be a difficult task. For example, is a 17-year-old female still a child and still capable of being a victim of child sexual abuse? Also, what exactly is abuse? Must harm have to occur for an action to be considered abusive? For example, if a man coerces a child to look at his penis and later the child shows no negative symptoms,
should that behavior be considered abusive? Finally, determining which acts are sexual behaviors has been challenging. For example, are parents who bathe with their children committing sexual abuse (Haugaard, 2000)?

Ambiguities in the definition of child sexual abuse have also occurred, in part, because of three obstacles. First, the term is used in many different contexts across many professional fields. For example, an inclusive definition of child sexual abuse may be beneficial for a clinician who works with a wide range of families or children. On the other hand, a precise definition of what behaviors are and are not sexual abuse would be needed by a judge who must determine if actions are worthy of incarceration. Thus, a conclusive definition has not been reached because a definition that would prove helpful in one instance would prove to be inappropriate in another situation (Haugaard, 2000).

The second obstacle is that “sexual” and “abusive” acts fall on continua and knowing where to draw the lines on these continua is incredibly difficult. For example, at what age should a father stop bathing with his daughter? Why that age and not the year before or the year after? Where and how can a parent touch a child before it becomes sexual abuse? Touching a child’s genitals may be a clear indicator of abuse, in many situations, but what about a parent touching his or her child’s upper thighs, buttocks, and so forth. A conclusive definition of child sexual abuse would need to answer issues such as these (Haugaard, 2000).

The contexts in which behaviors occur create the third obstacle. A mother who massages her 13-year-old son’s upper thighs as part of physical therapy routine would
probably be judged differently than if she made the same behavior a bedtime ritual. A father who helps to clean his 15-year-old daughter after she uses the bathroom may be considered abusive, unless the child had severe mental disabilities and could not do it herself. The combination of characteristics in different contexts is endless, making a decisive definition of child sexual abuse almost impossible (Haugaard, 2000).

Despite the problems with establishing a definition of child sexual abuse, the U.S. Department of Health and Human Services (U.S. DHHS, 2000a) has developed a definition of child sexual abuse. According to the DHHS, child sexual abuse is a form of maltreatment characterized by:

The employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct for the purpose of producing a visual depiction of such conduct. The rape, and in cases of caretaker or inter-familial relationships, statutory rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children. (Child Abuse and Prevention Treatment Act, 42 U.S.C.A §5106g)

With this current definition, debate remains on several important issues including consent, the ability of one child to abuse another child, and what the terms “abuse” and “sexual” mean (Barnett et al., 1997). This definition does, however, address several important issues such as specifications concerning interfamilial abuse as well as extrafamilial abuse and the sexual and abusive nature of physical contact with the child as well as noncontact experiences (Barnett et al.).

Definitional ambiguities have become barriers to researchers and clinicians who study and try to understand child sexual abuse (Barnett et al., 1997; Haugaard, 2000). Varying frequencies of child sexual abuse have been reported throughout the literature
due to different definitions, with broad definitions producing higher prevalence rates than more restricted definitions (Haugaard). A national survey that focused on women found that the percentage of victims changed from 17.3% (14.5-20.0 95% CI) to 24% (20.6-27.4 95% CI) based on the inclusiveness or exclusiveness of the definitions used (Vogeltanz et al., 1999). This is also the general trend when determining the severity of abuse and the consequences of abuse; broader definitions lead to a wider range of severity ratings and consequences (Haugaard). This ambiguity in definitions also leads to different questions and methods of research used by researchers as well as a lack of consensus on which populations ought to be studied (Burke, Gutman, & Dobosh, 2001; Skinner, 1991).

The most notable consequences of definitional ambiguity are found in the lives of the families and children who are most directly affected by child sexual abuse. This ambiguity in the legal and clinical fields has caused confusion among victims and their families. The confusion is then compounded by the secretive nature of sexual abuse (Burke et al., 2001).

**Prevalence of Sexual Abuse**

Determining an accurate prevalence rate for child sexual abuse has been problematic. There are several reasons for this, one of which is the ambiguous definition of child sexual abuse previously described. A second reason, according to a meta-analysis done by Gorey and Leslie (1997), is response rates on surveys. Response rates were found to be a significant predictor of prevalence rates, with higher response
rates predicting a lower prevalence of abuse. However, in another meta-analysis done by Bolen and Scannapieco (2001), and a study done by Edwards et al. (2001), little or no relationship was found between response rates and prevalence rates. Haugaard and Emery (1989) found that a low response rate resulted in overreporting of the prevalence of child sexual abuse, while a high response rate resulted in underreporting of child sexual abuse. Currently, no clear conclusion can be drawn about how response rates affect the prevalence rates in survey studies of child sexual abuse.

A third reason for problems in determining accurate prevalence rates is that not all incidents of abuse are elicited from respondents. This means that a person may respond as not having experienced a specific type of abuse because his or her experience does not seem to fit the question asked on the survey. For example, a question on a survey may ask, “Did the perpetrator have intercourse with you?” The respondent may answer “no” if intercourse was attempted but not completed. If the survey does not inquire further, this incident of abuse will be missed. The researchers in this area agree that several behavior-specific questions are needed on any assessment of abuse to elicit as many incidents of sexual abuse as possible from respondents (Bolen & Scannapieco 2001).

An official estimate of reported cases of child sexual abuse indicated that in 1993, an estimated 217,700 children were sexually abused (U.S. DHHS, 2000b). However, using only reported cases to calculate incidence or prevalence rates of child sexual abuse is problematic given that abuse is largely underreported (Kalichman, Craig, & Follingstad, 1989). Surveys of adults and college students indicate that the
reported prevalence rates of childhood sexual abuse range from 7% to 62% for females and 3% to 16% for males (Wurtele & Miller-Perrin, 1992). A recent survey of adults in North America indicated that 12% to 17% of females (22% if unadjusted for non-response rates) and 5% to 8% of males (8.5% if unadjusted for non-response rates) were victims of childhood sexual abuse (Stevenson, 1999). Another survey found that 27% of adult women and 16% of adult males reported having been sexually abused as children (Schultz, 1995).

Children with disabilities are thought to be at a higher risk for sexual abuse than are children without disabilities (Crosse, Kaye, & Ratnofsky, 1993; Sullivan & Knutson, 1998). Crosse et al. found that children with disabilities were 1.8 times more likely to be a victim of sexual abuse than their nondisabled peers. Sullivan and Knutson (1998) conducted an epidemiological study of the maltreatment of children with disabilities. A random sample of 3,001 disabled and maltreated children was compiled from a total of 39,352 cases from the Center for Abused Handicapped Children at the Boys Town National Research Institute (BTNRI) between 1982 and 1992, Nebraska Central Registry (NCR), Foster Care Review Board (FCRB), and police databases. They compared this sample with 880 nondisabled children. Overall, children with disabilities were 2.2 times more likely to be victims of sexual abuse than were nondisabled children. In this study, children with a communication disorder (hearing impairment, 22.4%; speech/language disorder, 22.1%; learning disorder, 37.8%) were significantly more likely to be sexually abused than were their nondisabled peers. However, when deaf and hard of hearing children were compared to nondisabled
children, no significant difference was found in the prevalence rate of sexual abuse.

Three other “pioneering” studies found that deaf children were at a higher risk for sexual abuse than their hearing peers. Sullivan et al. (1987) described a study in which a ninth grade class of deaf students was surveyed about their knowledge of sexual abuse, self-protection, and their experiences with sexual abuse. The prevalence rate of sexual abuse among this class was 50%. In the second study described by Sullivan et al., 150 students from a residential school for the deaf were questioned about their experiences with sexual abuse. Out of the 150 students questioned, 75 reported having been sexually abused. In the third study described by Sullivan et al., 322 freshmen who entered a postsecondary education facility for the hearing impaired between 1984 and 1986 were surveyed regarding sexual abuse. Of these students, 37 (11.1%) reported being sexually abused. Due to the conflicting findings of these studies regarding the prevalence of sexual abuse among the deaf, additional research is needed in this area.

Decreases in the Prevalence of Abuse

Efforts have been made to reduce the prevalence of child sexual abuse. Many prevention programs have been established in an effort to teach children how to protect themselves. The research on the effectiveness of these prevention programs is limited. However, in a recent national survey of 2,000 children, those who had participated in a prevention program were half as likely to be victims of sexual abuse as those who had not been involved in a prevention program (Gibson & Leitenberg, 2000). Other
research has shown that knowledge and skills thought to help protect a child from sexual abuse increased in children who attended a sexual abuse prevention program (Hebert, Lavoie, Piche, & Poitras, 2000). Several programs have been developed and used with deaf children such as “NO-GO-TELL: Protection Curriculum for Young Children with Special Needs” (Krents & Brenner, 1991), “The Children’s Self-Help Project - Revised” (Burke, 1989), and the “Sexual Abuse Prevention Project for Deaf/Hard of Hearing Children” (Association of Canadian Educators of the Hearing Impaired, 1990). Currently, no research is available on the effectiveness of such programs.

The Sequelae of Sexual Abuse

In the past 20 years, research on the consequences of child sexual abuse has flourished. Problems that are thought to be linked to child sexual abuse, ranging from depression to sexualized behaviors to somatic problems, have been investigated at great length. The purpose of this section is to highlight some of the recent important findings in the literature and to help clarify the current beliefs about the sequelae of child sexual abuse.

There are at least two groups of theories that have been used to explain the sequelae of child sexual abuse. The first group is the core-symptom theories that suggest that child sexual abuse results in a distinct syndrome of symptomatology (Green, 1993; Kendall-Tackett, Williams, & Finkelhor, 1993). The second group is called the multifaceted model of traumatization (Kendall-Tackett et al.). The basic
premise of this group of theories is that no specific syndrome develops in children who have been sexually abused and there is no single traumatizing process, but instead the child is impacted by sexual abuse in a variety of ways. Survivors of child sexual abuse do not exhibit a specific symptom or a pattern of symptoms but have been reported to exhibit many different symptoms (Kendall-Tackett et al.).

Establishing a clear causal relationship between sexual abuse and specific symptoms has been difficult due to several problems such as definitional issues, differences in the populations being studied (which were described above), and a wide range of symptoms being reported by victims (Barnett et al., 1997; Kendall-Tackett et al., 1993). Also, many sexual abuse studies use retrospective reports from adults who claim they were abused as children. With retrospective studies, it is difficult to determine whether the sexual abuse caused the symptoms or whether other factors (e.g., dysfunctional home or low social economic status) are related to the symptoms (Barnett et al.).

Asymptomatic Victims

Child sexual abuse is thought to be damaging at the time of occurrence as well as in the long term. However, Kendall-Tackett et al. (1993) concluded that this might not always be the case. In their study, they found that 21 to 49% of children who had been sexually abused were asymptomatic at the initial assessment and only 10 to 25% of those who were asymptomatic developed symptoms over a 2-year period. There are several possible explanations for these types of findings. One possibility is that the children did not develop symptoms because child sexual abuse simply does not cause
negative consequences for many children (Rind, Tromovitch, & Bauserman, 1998). However, this seems unlikely given the amount of literature documenting negative effects. Other possible reasons that the children truly may not have developed symptoms are resiliency factors that counteracted the negative effects of the abuse, or the asymptomatic children may have experienced a relatively mild form of abuse (e.g., one incident of exhibitionism). Another possible explanation is that the children were symptomatic, but the measures used did not identify their symptoms. Still another alternative is that the children may have suppressed their symptoms, and the symptoms may have manifested at some other time (Milgram, 1998). This suppression of symptoms is commonly called the "sleeper effect." Finally, the symptoms may not have been identified due to children lacking language skills or having a limited understanding of sexual abuse (Sullivan et al., 1987).

Depression

Although a clear causal relationship has not been confirmed, research findings have consistently shown that child sexual abuse is linked to depression both in the short and long term (Barnett et al., 1997; Dinwiddie et al., 2000; Green, Russo, Navratil, & Loeber, 1999; Peacock, 1999; Sexton, 1999; Taylor, 1998). Depression is one of the most commonly reported problems related to childhood sexual abuse (Barnett et al.). A recent meta-analysis (including 37 studies published between 1981 and 1995 totaling 25,367 participants; Oddone Paolucci, Genuis, & Violato, 2001) confirmed the link between child sexual abuse and depression (an effect size of .44). Many other problems, such as low self-esteem, self-destructive behavior, and suicide attempts seem
to be related to both depression and sexual abuse (Green et al., 1999).

One hypothesis about the relation between sexual abuse and depression suggests that depression is not caused by the abuse itself but instead is caused by other negative life factors (e.g., low social economic status). Zuravin and Fontanella (1999) investigated this hypothesis. They compared 105 women who had experienced child sexual abuse with 407 women who had not experienced child sexual abuse. They found that the women who had been sexually abused were three times more likely to suffer from depression than comparison women with similar negative life events. Results also indicated that more variance in major depression was accounted for by sexual abuse than by adverse life factors. Dinwiddie et al. (2000) conducted a study of 5,995 twins. In this sample, 5.9% of the women and 2.5% of the men had experienced childhood sexual abuse. When the sample was considered as a whole, those who had experienced child sexual abuse were more likely to be diagnosed with major depression than were those who had not experienced abuse. However, when the sample was restricted to twin pairs, with only one of the twins having experienced child sexual abuse, no significant difference was found for major depression. This finding contradicts the findings of Zuravin and Fontanella, mentioned above, and seems to support the hypothesis that other negative life factors or genetic factors are causing the depression rather than solely the sexual abuse.

Another hypothesis about the relationship between sexual abuse and depression suggests that depression is caused by cognitive style rather than effects of the sexual abuse. Sommer (2000) investigated the relationship between Beck's cognitive theory of
depression and sexual abuse. She compared adolescent male psychiatric patients who had or had not been sexually abused. She found that while cognitive style was related to the level of depression of adolescent boys who had not experienced sexual abuse, it was not related to the level of depression in adolescents who had been sexually abused. In this study, child sexual abuse accounted for more of the variance in depression in abused boys than cognitive style.

Posttraumatic Stress Disorder

Posttraumatic stress disorder (PTSD) has been proposed as a model to describe the sequelae of child sexual abuse (Rodriguez, Vande-Kempe, & Foy, 1998; Rowan & Foy, 1993). PTSD, as defined by the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV; APA, 1994), has six defining features. To be diagnosed with PTSD, a child must be exposed to a traumatic event that causes him or her to experience marked distress with such feelings as intense fear, helplessness, or horror. The child then must reexperience the phenomena (by having recurrent and intrusive distressing recollections of the event and/or recurrent distressing dreams of the event). The child must also demonstrate avoidant behaviors and increased autonomic arousal, and symptoms must persist for at least one month.

Many studies have found that children who were sexually abused are at an increased risk for developing full blown cases of PTSD both as children and later as adults (Barnett et al., 1997; Kendall-Tackett et al., 1993; Rodriguez et al., 1998; Schultz, 1995). Other studies have shown that some victims do not have enough symptoms to meet all of the criteria for PTSD, but do have significant symptoms that
fall on the PTSD continuum (Rodriguez et al.). However, not all researchers agree that using this model would be effective because PTSD does not describe all of the symptoms that survivors report. Also, the trauma surrounding child sexual abuse often does not fit the PTSD definition of a "traumatic event." During child sexual abuse there may not be any threat, danger, or violence involved, the abuse may extend over a long period of time, and the meaning of the abuse may alter over time (Morrissette, 1999).

Research has shown that the nature of the abuse is related to the symptoms of PTSD experienced by victims. When force is used rather than coercion, PTSD symptoms tend to be more extreme (Lucenko, Gold, Elhai, Russo, & Swingle, 2000). Also, the more incidents of sexual abuse, the more severe the PTSD symptoms tend to be (Weinstein, 1999). Although PTSD is a commonly reported symptom of sexual abuse, the etiology, pathogenesis, and course are still unclear (i.e., how much sexual abuse is required for PTSD symptoms to occur?; Morrissette, 1999). Overall, in the meta-analysis by Oddone Paolucci et al. (2001), described above, a mean effect size of .40 was found for PTSD symptoms in children who were sexually abused when compared to children who were not abused. However, in this meta-analysis, no mediating factors (e.g., if force was used, severity of abuse, number of abusive incidents) were found to be significant.

The level of PTSD child victims experience, as a result of child sexual abuse, has been linked with their overall mental health functioning. This includes difficulty in general daily functioning as well as specific areas of functioning. Child victims have been found to experience persistent symptoms of heightened arousal, reexperiencing of
the traumatizing incident, avoidance of the stimuli associated with the traumatizing event, numbing of responses, disturbed sleep, reduced interest in activities, hypervigilance, and elevated aggressiveness (Avery, Rippey, & Lundy, 2000).

**Sexualized Behavior**

Sexualized behavior is another symptom of child sexual abuse that has been well established in the literature (Barnett et al., 1997; Cahill, Kaminer, & Johnson, 1999; Kendall-Tackett et al., 1993). However, the link between sexual abuse and sexualized behavior is not clear because not all children who demonstrate sexualized behavior are victims of sexual abuse (Cahill et al., 1999; McNichol & McGregor, 1999). For example, 25% of preschool children, who were not victims of sexual abuse, were found to touch their own genitalia in public, 60.2% touched their genitalia at home, and 16.75% used their hands to masturbate. Recent research, on the other hand, has shown that children who were sexually abused demonstrated different sexualized behaviors such as seductive behavior, requesting sexual stimulation, age-inappropriate sexual knowledge, attempting intercourse, putting objects into their vagina or rectum, putting their mouths on sex parts, and pretending toys are having sex (Cahill et al.; Friedrich, Fisher, Broughton, Houston, & Shafran, 1998). Also, no clear relationship between age, gender, abuse, and perpetrator characteristics and sexualized behavior has been found (Cahill et al., 1999). Ahluvalia (1997) found that other variables (i.e., family dysfunction) had strong correlates with symptoms of sexualized behavior.
Other Long- and Short-Term Effects

Numerous other short- and long-term effects of sexual abuse have been reported throughout the literature. Short-term effects depend somewhat on the developmental level of the abused child (Barnett et al., 1997). Sexually abused children of all ages may experience physical problems such as headaches, stomachaches, and genital bleeding. Females who are experiencing or have experienced puberty may become pregnant (Barnett et al.). Cognitive problems such as learning difficulties, poor concentration and poor attention have been linked with sexual abuse at all ages (Barnett et al.; Beitchman, Sucker, Hood, DaCosta, & Akman, 1991; Sexton, 1999).

Emotionally, children of all ages who have been sexually abused may suffer from nightmares (Barnett et al.; Stern, Lynch, Oates, & O'Toole, 1995), guilt (Barnett et al.; Beitchman et al., 1991), and anger (Barnett et al.); while, suicidal feelings (Barnett et al.; Beitchman et al.; Calam, Horne, Glasgow, & Cox, 1998; Goebel-Fabbri, 1998) and low self-esteem tend to be found more often in school age children and adolescents than in young children (Barnett et al.; Kendall-Tackett et al., 1993; Stern et al., 1995).

Finally, children of all ages, who have been sexually abused, may struggle with behavior problems (Kendall-Tackett et al.) such as social withdrawal (Barnett et al.), sexual victimization of others (Barnett et al.), and self-injurious behavior (Barnett et al.).

Long-term effects of sexual abuse include emotional problems such as anxiety (Barnett et al., 1997; Peacock, 1999), interpersonal problems such as difficulty trusting others, poor social adjustment and social isolation (Barnett et al.). Sexual adjustment
problems (Barnett et al.; Beitchman et al., 1991) and behavior dysfunction were also identified as long-term adverse outcomes (Barnett et al.). Sexual abuse also tends to be associated with substance abuse (Dinwiddie et al., 2000; Hawke, Jainchill, & De-Leon, 2000; Weinstein, 1999).

**Symptoms in the Deaf Population**

Although the effects of sexual abuse have been investigated to a much lesser degree for the deaf population, a number of problems similar to those mentioned above have been found. LaBarre (1998), while treating deaf victims of sexual abuse, noted school-related problems, inappropriate sexual play, sleep disturbance, depression, withdrawal, suicidal feelings or substance abuse, and lack of trust in self and others. Sullivan and Knutson (1998) found that deaf children who had been maltreated (this included neglect, physical abuse, and sexual abuse) had elevated scores on both the internalizing and total scales of the Child Behavior Checklist (CBCL) when compared with deaf children who had not been maltreated. In this same study, maltreated deaf children also were noted to be more withdrawn, anxious, and depressed, and had more aggressive behaviors as well as more PTSD symptoms than did their nonabused peers. Maltreated deaf children also had higher levels of social problems and thought problems as measured by the CBCL.

In one exploratory study by Johnson, Brady, and Smith (2000) 15 self-selected respondents (some hearing and some deaf) were surveyed about their experiences with sexual abuse among the deaf. Of the 15 respondents, 9 had experienced abuse themselves while 6 knew about it happening to deaf people. Ten of the respondents
reported that the abuse happened at home and eight of the respondents reported that the abuse happened in a residential school setting (i.e., in the dorm, bus, or at the school). The types of abuses reported were digital penetration of the vagina and anus, the child being required to stimulate the perpetrator’s genitals, oral sex, attempted rape, and rape. The types of force reported were the use of guns, being threatened with a shovel, and verbal threats. Several victims were physically injured, one became pregnant from the abuse, and two respondents reported having had their vaginas scraped, both cases requiring medical attention. Those who were victims of sexual abuse reported that the abuse negatively influenced their lives long after the abuse was over. They reported that it caused feelings of anger, depression, confusion (e.g., one reported not breast feeding her children because she thought it would be abusing them), and a fear of intimacy. One respondent reported acting out sexually and another being revictimized by her husband years later. However, these findings must be interpreted with caution due to many weaknesses in this study such as the small sample size, the respondents being self selected, and the use of second-hand information from people who were not victims themselves.

Characteristics of Sexual Abuse

Throughout the research, child sexual abuse is generally lumped into one, all-inclusive category, despite important differences in characteristics. For example, extrafamilial and intrafamilial sexual abuse are regularly grouped together in studies but are likely to have very different effects on the child, different risk factors and different
protective factors. Also, studies often do not distinguish between age groups of children, even though the nature and impact of the abuse are likely to differ over the age span of childhood (Black, Heyman, Slep, & Smith, 2001). The effects of many of the characteristics associated with sexual abuse remain unclear; however, this section will address some of the characteristics that are thought to influence the effects the abuse has on the child.

**Use of Force**

The use of force is one characteristic of child sexual abuse that is thought to influence the negative effects the abuse has on the child. Most sexual abuse includes some type of coercion; however, force indicates that threats or violence were used during the abuse. Research findings have consistently shown that the use of force results in increased symptomatology of posttraumatic stress in adult survivors (Schultz, 1995). West, Williams, and Siegel (2000) found that the use of force during child sexual abuse was a predictor of later revictimization. These findings support that of Barnett et al. (1987) who suggested that when sexual abuse is paired with other forms of child maltreatment, the long-term effects tend to be more severe.

**Severity and Duration of Sexual Abuse**

Terr (1993) has suggested that there are two types of sexual abuse trauma. Type I trauma is abuse that occurs as a single incident, it is sudden and unpredictable (e.g., stranger rape). Type II is chronic, expected, and predictable (e.g., a girl is sexually abused by her father for years). This distinction is important because Type II is often
associated with features such as more serious sexual penetration, as well as longer duration and frequency, all of which are believed to cause more trauma for the victim (Kendall-Tackett et al. 1993). Studies have found evidence that supports the idea that the more sexual penetration involved in sexual abuse the more negative outcomes the victim tends to experience (Barnett et al., 1997; Mennen & Meadow, 1995; Schultz, 1995; Wyatt & Newcomb, 1990). For example, vaginal or anal penetration was a variable that predicted later revictimization in Black women (Arata, 2000), and more severe forms of sexual abuse, attempted penetration, or actual penetration have been linked with later episodes of self harm (i.e., drug overdose; Xavier, Law, Tobias, & Hawton, 1998) or suicide attempts (Bryant & Range, 1997).

Gomes-Schwartz et al. (1990) sampled 156 children who had been sexually abused and found that the most serious types of abuse had occurred the most frequently. Twenty-eight percent of these children had experienced either vaginal or anal intercourse; 38% had experienced oral-genital contact or object penetration; 23% had experienced fondling or mutual stimulation; and 6% had experienced some form of attempted sexual contact, touching, or voyeurism. These findings indicate that child sexual abuse victims may be more likely to experience forms of serious abuse rather than less serious forms of abuse. Another possible explanation of these findings may be that serious forms of abuse were reported more often than less serious forms of abuse.

Research has also consistently shown that longer duration or increased frequency of abuse is associated with more negative effects for the victim (Nash et al., 1993; Kendall-Tackett et al., 1993; Schultz, 1995). Nash et al. found that while the
duration of the abuse was associated with negative effects, more frequent abuse with a shorter duration had even more serious negative effects. Arata (2000) found that repeated victimization, in women, was related to higher reported rates of self-blame, to higher levels of PTSD, and high-risk sexual behavior. Coll, Law, Tobias, and Hawton (1998) found that sexual abuse was prevalent in women who take overdoses of drugs. They also found that women who had taken overdoses more than five times tended to have experienced more severe abuse and were abused for longer periods of time than those who had taken overdoses fewer than five times.

**Age of the Victim**

Another important factor is the age of the child when the abuse begins. Generally, the younger a child is when the abuse begins, the more negative the effects of the abuse are on the child (Coll et al., 1998; Nash et al., 1993; Schultz, 1995). Nash et al. noted that significantly greater psychological disturbance was related to an early age of onset (before 7 or 8 years). Vig (1999) found that an earlier onset was related to higher levels of self-mutilation, somatic symptoms, depressive symptoms, overall persuasiveness, and severity of presenting symptoms. Schultz found that an early onset of abuse was correlated with posttraumatic stress symptomatology in adult survivors of childhood abuse.

**Other Characteristics of the Abuse**

A close relationship between the perpetrator and the child also tends to result in more negative outcomes (Barnett et al., 1997; Wyatt & Newcomb, 1990). The number
of perpetrators who abuse the child is also related to negative outcomes (Nash et al., 1993). However, Oddone Paolucci et al. (2001) examined PTSD, depression, suicide, sexual promiscuity, and the victim-perpetrator cycle in survivors of child sexual abuse and found that variables such as gender, socioeconomic status, type of abuse, age when abused, relationship to perpetrator, and number of abuse incidents did not seem to serve as mediating factors.

**Resiliency Factors**

Resiliency is the ability to recover or rebound after a traumatic experience, or for the purposes of this paper, the ability of a child to recover from child sexual abuse. As was previously stated, some children are asymptomatic after experiencing sexual abuse (Kendall-Tackett et al., 1993) while other children experience a moderate degree of symptoms and still others develop a severe impairment. These differences may be, in part, due to the characteristics of the abuse itself (e.g., duration, frequency, and severity). They may also be due to protective factors, which are thought to influence the amount of trauma experienced by victims and/or contribute to resiliency. Lam and Grossman (1997) found that protective factors aided all of the women in their study in adult adaptation; however, the women who had a history of child sexual abuse benefited from them significantly more than those who had not been abused. Clarke (2001) suggested that certain child personality attributes and family characteristics (described below) are important conditions that promote resiliency.

The attribution style of victims of sexual abuse can serve as a protective factor (Arata, 2000; Clarke, 2001). An important part of attribution style is the child’s locus
of control. Negative outcomes have been linked to children having an internal locus of control that resulted in self-blame or thoughts that he or she controlled the abuse. For example, Arata (2000) found that self-blame is a mediating factor for later revictimization. On the other hand, a stable and external attribution style may lead to learned helplessness with the child believing that he or she has no control over the situation. Other important parts of a child's attribution style, which seems to affect resiliency, are whether the child sees the abuse as being a specific incident or a global problem. For example, Barnett et al. (1997) found that if the child perceives the abuse as devastating, he or she is more likely to experience negative effects.

The child's relationship with his or her parents is thought to be an important factor in resiliency. Christian (1997) investigated the relationship 50 girls, who were survivors of child sexual abuse, had with their parents and the influence of this relationship on their self-worth. The results showed that the girls' self-worth was related to their relationship with their parents. Reyes (1997) found that the child's perception of parental support was related to the amount of overall trauma the child experiences after being sexually abused, with the more support perceived the less trauma experienced.

The family's overall functioning has also been linked with resiliency (Ahluvalia, 1997; Williams, 1996). In fact, Ahluvalia found that family dysfunction was often the best predictor of adverse outcomes in children who had been abused when compared with characteristics of the maltreatment itself. Bramblett (1998) found that men coming from severely dysfunctional families (their childhoods were full of confusion,
unpredictability, and rejection) were not able to cope with their experience of sexual abuse effectively. Some of these men even went on to become perpetrators themselves.

The events that occur after the abuse happens, or after it is disclosed, have been found to be linked with resiliency. When the victim tells about the abuse, negative responses are associated with more negative outcomes, while positive responses are associated with better outcomes (Barnett et al., 1997; Wyatt & Newcomb, 1990). Increased social support is also thought to lessen the negative effects (Barnett et al.).

Out-of-home placement is thought to be an influential factor on resiliency, but studies have found both leaving the child in the home to be helpful as well as removing the child from his or her home (Barnett et al., 1997). However, removal of a child from his or her home may be an indication that the home environment is extremely poor; thus taking the child out of that environment may help the child be more resilient. On the other hand, if a child is left in the home, it may be an indication that the home is functioning better and so leaving the child may help the child be resilient. Thus, both factors need to be considered when examining the effects of out-of-home placements in the research.

Risk Factors Associated with Sexual Abuse and Disability

Research has shown that victims of sexual abuse who also have a disability tend to be abused at a higher rate than nondisabled children, on more frequent occasions and often suffer more significant harm (Sobsey & Mansell, 1994). To date, little or no research has been done to help explain why this happens. However, there are several
characteristics of disabled people that seem to make them more vulnerable to sexual abuse.

Familial situations may put children with disabilities at additional risk for sexual abuse. Parental stress is often increased by having a child who is disabled because of the additional time and resources that must be invested in raising the child (Burke et al., 2001). As stress increases in a family, so does the chance for some type of maltreatment. Also, parents who have children with disabilities may suffer from social isolation due to meeting the needs of their children with disabilities, which is another risk factor for abuse (Whetsell-Mitchell, 1995). Parents also may struggle with feelings of guilt and shame related to their children who have disabilities. These characteristics may also limit parents’ abilities to support their child if sexual abuse does occur.

Westcott (1991) suggested that people who are disabled have little control or choice over their own lives and are taught that compliance and obedience are equivalent to good behavior. This type of situation may cause the disabled person to become an easy target for sexual abuse. Whetsell-Mitchell (1995) suggested that not knowing it is “okay” to say no to adults and having a fear of being punished are risk factors for sexual abuse for any child. Also, individuals who are disabled may feel isolated and be responsive to the attention and affection they may receive while being sexually abused. Perpetrators may use attention and affection as tools for manipulating their victims (Westcott). Children who have disabilities may receive less affection from members of their family than do their nondisabled peers (Kempe & Kempe, 1984). Whetsell-Mitchell suggested that any child who does not have his or her needs for love and
belonging met is at risk for sexual abuse.

Offenders may think it safer to victimize a disabled child (LaBarre, 1998; O'Day & Specktor, 1983), especially if the child will struggle to verbalize the abuse (Goldman, 1994; Westcott, 1991). Disabled children also may not receive the same information about sexual abuse as do nondisabled children, and so may not understand the inappropriateness of the abuse (O'Day & Specktor). These are salient issues for the deaf and will be discussed further below.

Children with disabilities are abused by perpetrators including family members, friends, and step-family members as are children without disabilities (Mansell, 1993). However, children who are disabled are also commonly abused by those who provide services specifically related to the child’s disability (i.e., residential care staff, foster parents, specialized transportation providers; Mansell; Sullivan et al., 1987). Mansell reported that of 208 cases of sexual abuse of people with disabilities, 37.4% of the perpetrators were people who provide services related to the child’s disability. Mansell concluded that being exposed to the “disabilities service system” alone could account for the increased risk for abuse.

Deafness

In order to better understand the deaf population specifically, the following section describes this population. The degree of hearing loss a deaf person experiences varies from person to person. According to Schirmer (2001), hearing loss can be divided into six groups depending on the degree of hearing loss experienced: slight (16
to 25 decibels [dB]), mild (26 to 40 dB), moderate (41 to 55 dB), moderate-severe (56 to 70 dB), severe (71 to 90 dB), and profound (91 dB or greater). Individuals whose hearing loss is between 25 to 70 dB are generally able to understand speech and tend to be called “hard of hearing.” They tend to live as members of the hearing world; however, they may require some assistance (hearing aids, language training, and so forth) to function effectively (Paul & Jackson, 1993). Individuals whose hearing loss is above 70 dB are considered “deaf.” These people typically cannot understand speech and so must depend on speech reading, hearing aids, or sign language (Paul & Jackson).

The National Center for Health Statistics (U.S. DHHS, 1996) estimated that about 22 million people in the United States have some kind of hearing loss. Deafness is considered a low incidence disability among children because only about 1.8% of the children age 3-17 have a hearing loss (U.S. DHHS). Between .18 and .49% of the population have a severe or profound hearing loss (U.S. DHHS). It is this group of people who are of primary concern in this study.

Hearing loss can occur at any age, and it has numerous etiologies (Schirmer, 2001). Some children are born with a hearing loss, while others do not become deafened until later in life. Those who are prelingually deafened will have the communication issues that will be described below. Some of the causes of deafness such as injury (e.g., blow to the head), toxicity (e.g., drugs), and maternal rubella also cause other disabilities comorbid with deafness.

About 90% of deaf children are born to hearing parents (LaBarre, 1998). The experiences of these children tend to be very different than the experiences of the other
10% of deaf children born to deaf parents (Lane, Hoffmeister, & Bahan, 1996). Most hearing parents who discover they have a deaf child mourn because of the loss of their "perfect" infant, while many deaf parents of deaf children hoped for a deaf child and are excited when the doctors notify them that their infant is deaf (Lane et al.). Many hearing parents see themselves as significantly different than their deaf child, while deaf parents feel that way about their hearing children but not their deaf children (Lane et al.).

In most families where hearing parents have a deaf child, communication between parent and child is a problem that gets worse through time (Lane et al., 1996; Scheetz, 2001). Language for the deaf child must come visually, which is very different than the auditory style to which most hearing parents are accustomed. Many hearing parents see their child's deafness as a deficit and as something that needs to be fixed. This type of reasoning is why only some deaf children of hearing parents are taught sign language and the rest are taught to speak (Scheetz). In families in which the children are taught to sign, remarkably few family members become proficient at sign language (Lane et al.). The deaf children who are not taught to sign are taught to speak and to speech read (read lips). However, the best speech reader only understands part of the conversation, must be situated in close proximity of the speaker, and following a group conversation is nearly impossible (Scheetz). Many deaf children in hearing families are language delayed simply because of the lack of environmental language stimulation (Scheetz).

Communication issues are not nearly as complicated in families where both the
parent and the child are deaf. Generally, the deaf child grows up developing a natural language because deaf parents tend to be comfortable with providing the visual language development (Lane et al., 1996). The deaf child of deaf parents has language role models from birth, and language develops in a similar fashion as it does in hearing children of hearing parents (Lane et al.). Deaf children of deaf parents tend to be able to communicate effectively, through sign language, with their parents and other family members. Deaf parents tend not to perceive deafness as a disability but rather as causing them to be part of a cultural minority (Lane et al.). The environment is set up as such. Deaf parents tend to have things in place that make the hearing world accessible to them (e.g., telecommunication devices for the phone, alarm clocks that vibrate, knowledge and experience with interpreters, and deaf friends; Lane et al.).

Issues Related to Sexual Abuse and Deafness

The deaf child's limited communication skills are considered a risk factor for sexual abuse. This issue is more severe for deaf children with hearing parents but remains an issue for deaf children with deaf parents. Many deaf children do not have advanced enough language to be able to “tell” if sexual abuse happens (LaBarre, 1998; Sullivan et al., 1987). Both groups have limited resources of people to “tell” if they were being sexually abused (LaBarre). If the deaf child of hearing parents did have the language skills to be able to tell, hearing parents may not know enough sexual signs to understand when being told (LaBarre). If a deaf child is sent to a public school, most of his or her teachers will not be able to communicate effectively with him/her and will
have to depend on an interpreter. Interpreters employed at the public schools are not always proficient in sign language and may not know enough sexual sign language to understand if the deaf child tried to tell. At the public school deaf children tend not to develop deep friendships because most peers can only communicate with them on the surface level. In the community, doctors, police, and other authority figures will not be able to communicate effectively with the deaf child (Lane et al., 1996).

While more deaf children are being mainstreamed due to IDEA, many still attend residential schools (Lane et al., 1996). Attending residential schools is a risk factor for sexual abuse (LaBarre, 1998). At these schools most children are separated from their parents for the school week and return home only on the weekends. Staff have easy access to children in these schools. As was previously stated, children with disabilities are often abused by those who work with them related to their disabilities. Children who are abused may abuse younger children in some of these schools (LaBarre).

There are several other issues that are believed to be risk factors for deaf children, but no research has been done on these factors. Sullivan et al. (1987) suggested that the amount of incidental learning that deaf children miss due to not being able to hear is related to their lack of knowledge of sexual abuse and so leaves the deaf child vulnerable. Events often happen to or around the deaf child that he or she does not understand and sexual abuse may be simply thought of as another unexplained life event. Because the deaf child has not received direct instruction in sex education, many deaf children are more naive than are their hearing peers (Sullivan et al.). The deaf
child may have the belief that sexual abuse happens to all children, or that he or she is the only one it happens to and so he or she is bad or different. Deaf children generally do not read well and so are not likely to simply “pick up” correct sex education.

Therapy is not readily available for deaf victims of sexual abuse. If the victim uses sign language he or she must often times rely on an interpreter to help him/her communicate with the therapist (Sullivan et al., 1987). This three-way communication causes complications in therapy (Sullivan et al.). Also, most therapists are not educated about deaf culture and do not understand many of the values of deaf people. For example, many therapists may view deafness as something that needs to be fixed while many deaf people would not want to become hearing if given the chance (Lane et al., 1996). Therapists often do not understand other deaf and hearing cultural differences such as appropriate eye contact, the use of facial expression, interpersonal distance, decision making practices, privacy issues, and so forth. These and other problematic issues related to deaf culture will probably not be addressed unless the therapist becomes educated about the culture (Burke et al., 2001). The deaf victim who does not sign may struggle to understand the counselor. Deaf clients, even as adults, may not have appropriate background knowledge and language to be able to discuss the abuse.

Summary

Child sexual abuse is a serious problem in part because it is such a widespread problem and because many negative consequences (e.g., depression and self-harm) are believed to be the result of child sexual abuse. However, there is a great deal of
heterogeneity in the research as to what the specific effects of child sexual abuse are and even on how to define the term. The amount of trauma the victim experiences is thought to be influenced by the characteristics of the abuse (e.g., severity and duration) and by resiliency factors. However, once again, the research is mixed in this area.

Children who have disabilities are at a higher risk for becoming victims than are other children for a variety of reasons. Research in the area of sexual abuse among the deaf population is limited. From the literature available, it appears that deaf children are at higher risk for sexual abuse than are other children, both with and without disabilities. The nature of abuse that deaf children experience may be more extreme than that which other children experience because they are not able to “tell” and so the abuse can continue longer, be more frequent, more severe, and so forth. The deaf victim may not experience any of the mediating characteristics that are thought to reduce the negative effects of the abuse because of communication barriers. These characteristics combined mean that the deaf adult will probably experience more negative outcomes than do other adults.

The purpose of this study was to determine the prevalence of sexual abuse among the deaf in Utah. This study also examined the nature of the abuse that deaf children experience including: at what age the abuse started, the duration and frequency of the abuse, was force used, the relationship between the perpetrator and the victim, and the severity of the abuse. The circumstances deaf survivors face were also examined such as how communication issues specifically related to deafness affected the survivors’ ability to “tell” about the abuse and what social support is
available to deaf victims of sexual abuse. The prevalence rate of abuse, nature of abuse, and mental health status of adult deaf survivors were examined and then compared to results from hearing individuals.
CHAPTER III

METHODS

Participants

The participants in this study were 173 adults, ranging in age from 18 to 88. The participants were divided into deaf and hearing groups based on their self-reported hearing loss. Participants who reported no hearing loss, a mild loss, or a moderate loss were considered hearing, while those who reported a severe or profound hearing loss were considered deaf. With this system of categorization, 69 participants were classified as hearing and 104 participants were classified as deaf.

The average age of the deaf participants was 46 years old (SD = 18.6) and the average age of the hearing participants was 44.7 years old (SD = 13.5). Of the hearing individuals only 27.5% (n = 19) were males, while 41.5% (n = 44) of the deaf participants were males. The educational experience of participants in the two groups differed in two ways. First, in the deaf group only 56.6% of the sample finished high school and attended at least some college, while 82.6% of the hearing group finished high school and attended at least some college ($\chi^2 = 15.80, p < 0.01$). A difference in education level was expected, due to differences in educational attainments among the deaf and hearing population in general (Bullis, Bull, Johnson, & Peters, 1995). Second, the actual school settings where the participants were educated differed. The majority of the deaf group (69.8%) reported going to a deaf school for at least part of their education. Only a few of the hearing group (7.2%) reported attending a deaf school at
any period during their education. This difference was also expected for obvious reasons.

The vast majority of parents of participants in both groups were hearing (deaf sample = 92.5% and hearing sample = 94.2%). As was previously described, about 90% of deaf children are born to hearing parents (LaBarre, 1998). English was used by 79.7% of the hearing participants as one of their primary means of communication. Although this number may seem low, this group included hard of hearing individuals and some hard of hearing people prefer to use sign language although they still have enough hearing ability to be considered a hearing person. The majority (94.2%) of the hearing participants reported using English when communicating with their parents. ASL was used as the primary form of communication among the majority the deaf group (72.6%) and Pidgin Signed English (PSE) was reported as the primary form of communication for 17.9% of the deaf group. However, when asked what language they used with their parents, only 14.2% of the deaf group reported using ASL, 12.3% reported using PSE, and 67% reported using English. This was expected because, as explained above, most family members of a deaf child do not become fluent in sign language and many communication problems occur (Lane et al., 1996, Scheetz, 2001) (see Table 1 for a complete summary of demographic information).

Instruments

The data were collected through a paper/pencil survey. There were two parts of the survey. First, was an original survey composed by the author (see Appendix A for a
Table 1

Summary of Demographics

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<th>Variable</th>
<th>Deaf (n = 104)</th>
<th>Hearing (n = 69)</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Age</td>
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<td></td>
</tr>
<tr>
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<tr>
<td>Deaf school</td>
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<tr>
<td>Deaf</td>
<td>4</td>
<td>3.8</td>
</tr>
<tr>
<td>Hard of hearing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>One of each</td>
<td>4</td>
<td>3.8</td>
</tr>
<tr>
<td>Primary mode of communication w/parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>71</td>
<td>67.0</td>
</tr>
<tr>
<td>American Sign Language</td>
<td>15</td>
<td>14.2</td>
</tr>
<tr>
<td>Signed Exact English</td>
<td>8</td>
<td>7.5</td>
</tr>
<tr>
<td>Pidgin Signed English</td>
<td>13</td>
<td>12.3</td>
</tr>
<tr>
<td>Total communication</td>
<td>14</td>
<td>13.3</td>
</tr>
</tbody>
</table>

\textsuperscript{a} Participants could choose more than one answer.
copy of the survey). The questions on the survey asked about the individual’s personal experience with child sexual abuse. Most of the questions on the survey were set up in a multiple choice format. For questions that did not have mutually exclusive answers, lines were provided for any comments respondents wanted to add, especially if their experience did not match any of the answers listed.

The second part of the survey was the Outcome Questionnaire - 45.2 (OQ-45.2; Lambert et al., 1998), a measure of overall psychological functioning. This measure has three subscales (Symptom Distress, Interpersonal Relations, and Social Role) as well as a total score. The Symptom Distress subscale is intended to measure how the individual is feeling and whether or not he or she is experiencing symptoms of distress (e.g., depression and/or anxiety). The Interpersonal Relations subscale is intended to measure the individual’s problems with and satisfaction with interpersonal relations. The Social Role subscale is intended to measure an individual’s level of dissatisfaction, conflict, distress and inadequacy in tasks related to his or her role in his or her family, employment and leisure time. A total of these subscales can be used to measure general functioning. It was the Total Score that was used in the analysis for this study due to the stronger psychometric properties of this score. The OQ-45.2 was modified somewhat to decrease the English skill level needed to understand the questions (see Appendix B for a list of modifications).

The OQ-45.2 possesses strong psychometric characteristics. The reliability of the OQ-45.2 (Lambert et al., 1998) was assessed by testing 157 undergraduate college students and 298 patients from an Employee Assistance Program (EAP). Internal
consistency was found to be high for both groups (students--symptom distress .92, interpersonal relations .74, social role .70 and OQ-45.2 total .93; patients--symptom distress .91, interpersonal relations .74, social role .71 and OQ total .93). Test-retest reliability was also high (symptom distress .78, interpersonal .80, social role .82, total .84).

Concurrent validity of this measure was estimated for the student sample by correlating the OQ-45.2 (Lambert et al., 1998) with several other measures of psychological functioning (Symptom Checklist, Beck Depression Inventory, Zung Self-Rating Depression Scale, Zung Self-Rating Anxiety Scale, Taylor Manifest Anxiety Scale, State-Trait Anxiety Inventory, Inventory of Interpersonal Problems, Social Adjustment Scale, and SF-36 Medical Outcome Questionnaire). Correlations indicated that the OQ-45.2 had high to moderately high concurrent validity (ranging from .48 to .88). Construct validity was supported by comparing scores from the EAP patients and community mental health clinical sample and those of the community and students. Mean scores on the OQ-45.2 correctly ordered the sample groups from most pathological to least pathological.

Both parts of the survey as well as the letter of consent were pilot tested for readability. First, the instruments were reviewed by two university professors in a deaf education program, who are well aware of the issues deaf people face when reading English. The professors were interviewed individually by the author and both suggested a number of changes, which were integrated into the instrument. Next, a pilot test of ten deaf individuals was conducted. Two of the deaf individuals were in a
deaf education masters program, 4 had little to some college education and 4 had no
college experience. Each individual was interviewed, changes were suggested, and
most were accepted and integrated into the survey. Between interviews, changes
suggested by readers were made on the survey. By doing this, the changes that were
suggested by the readers could also be assessed for readability by the remaining readers.

Procedures

Two groups were sampled for this study. The first group consisted of 600
people who were most likely deaf adults, 18 or older. The majority of names and
addresses of these participants were found in the “2000-2001 Utah TTY Directory”
(Mortensen, Kinney, & Nelson, 2000). Names of husbands and wives from the TTY
directory were included in the list separately. A few additional names were found
through deaf church directories and from people who heard about the study. When the
list was compiled, there were 834 names. This list was believed to be representative of
deaf adults living in Utah. From this list, 234 names were randomly removed from the
list to reach the desired sample size. Each sample of 600 had an equal opportunity of
being selected (Gall, Borg, & Gall, 1996). Not all of the 834 adults were included due
to financial constraints.

The second group sampled consisted of 200 adults who were most likely
hearing. The names of these participants were randomly chosen from the Qwest Dex
White and Yellow Pages phone book for Cache Valley, Utah (2000). A random number
list, generated from Excel, was used to choose the page of the phone book and then
another random number was used to choose the name from the page. Businesses were not included in the study so if a business name was selected, the name following the business was used. Each sample of 200 participants had an equal opportunity of being selected (Gall et al., 1996).

For the purposes of this study, deafness was defined as being a severe to profound hearing loss (71 dB or greater). The degree of hearing loss each participant has was determined by his or her answer to a question about the degree of hearing loss on the survey. This distinction is believed to be important because severe and profound hearing losses generally indicate that oral/aural communication is extremely impacted, even in one on one, face-to-face communication. Moderate hearing losses or less generally do not impact communication as significantly.

Determining group placement based on hearing loss means that participants whose names came from the deaf sample but have only a moderate hearing loss (below 70 dB) or less would have been counted in the hearing results. The same is true for the hearing sample. If a person with a severe or profound hearing loss was chosen from the Cache Valley Phone book, his or her results would be included in the deaf results. There is no way of knowing how often this happened because the exact same survey was sent to both groups and the returned surveys were completely anonymous.

The survey was mailed to each individual in the two samples. A cover letter and a return envelope were sent with the survey (see Appendix C). Approximately one week later a follow-up postcard (see Appendix D) was sent to all those who had not returned their surveys. A second follow-up (see Appendix E) was sent to all those who
had not returned their surveys after 3 weeks. This follow-up consisted of a letter, a second survey, and a return envelope (Dillman, 1978).

To ensure the surveys remained anonymous, the survey did not have a name or number on it. A postcard with the participant's name was sent with the original questionnaire. When the participant returned the survey, he or she was asked to mail in the postcard separately. The names on the postcards were then matched with the names on the sample lists to determine who had returned their surveys and who had not. There was no way to match the names with the surveys. Also, the envelopes with the returned surveys were opened and discarded by an individual "blind" to the project who then handed the surveys to the researcher so that the postmark would not serve as an indication of identity.

In total, 213 responses (26.6%) were made by people who received the survey. Twenty-six people reported that they did not want to participate in the study. These 26 people returned the survey blank or the postcard explaining their desire not to be included in the study. In total, 187 completed surveys were returned. Of these 187 participants, 14 surveys were discarded because they did not clearly fit into either the hearing or deaf group. Thus, the total usable response rate was 23.38%. On the 14 surveys that were discarded, respondents reported having a moderate to severe hearing loss, which would have classified them as hearing, according to the definition of hearing loss (Schirmer, 2001). However, these 14 people reported growing up as a typical deaf child would (e.g., using sign as their primary form of communication and attending a deaf school). Nine participants who reported a mild or moderate hearing
loss also reported using ASL as their primary form of communication. These participants were not discarded because their hearing loss was not severe enough to inhibit them from being able to talk with and understand others. People with these types of hearing losses are still able to benefit from incidental learning like hearing children do.
CHAPTER IV
RESULTS

Prevalence of Abuse and Characteristics of the Victims

In order to estimate the prevalence of abuse in this sample and to learn more about the characteristics of the victims, respondents were asked to answer questions regarding whether or not they were abused, where they attended school, their education level, their communication preferences, and their age when the abuse started and stopped (see Table 2). Of the 104 deaf people who responded to the survey, 19.8% ($n = 21$) reported having experienced child sexual abuse. Of the 69 hearing people who responded to the survey, only 10.1% ($n = 7$) reported having experienced child sexual abuse. The rates of child sexual abuse in the two groups did not differ significantly ($\chi^2 = 3.365; p = 0.186$).

As expected, more females reported being abused than did males. All seven of the victims in the hearing group were female (15.22% of hearing female respondents). In the deaf group, 16 victims were female (26.67% of deaf female respondents) and five were male (11.36% of deaf male respondents). The deaf victims of sexual abuse had slightly more education than did the deaf sample as a whole. Of the deaf victims, 38.1% ($n = 8$) graduated from college but only 24.5% ($n = 26$) of the deaf sample as a whole graduated from college. However, this education level still lagged behind both the hearing victims’ education level as well as the hearing sample as a whole.

All of the hearing victims reported using English as their primary form of
Table 2

Characteristics of the Victims

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaf (N = 21)</th>
<th>Hearing (N = 7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Gender of victims</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5</td>
<td>23.8</td>
</tr>
<tr>
<td>Female</td>
<td>16</td>
<td>76.2</td>
</tr>
<tr>
<td>Type of school&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing school</td>
<td>9</td>
<td>42.86</td>
</tr>
<tr>
<td>Deaf school</td>
<td>16</td>
<td>76.19</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least some high school</td>
<td>8</td>
<td>38.1</td>
</tr>
<tr>
<td>Some college</td>
<td>5</td>
<td>23.8</td>
</tr>
<tr>
<td>Graduated from college</td>
<td>8</td>
<td>38.1</td>
</tr>
<tr>
<td>Primary model of communication&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>7</td>
<td>33.3</td>
</tr>
<tr>
<td>American Sign Language</td>
<td>17</td>
<td>81.0</td>
</tr>
<tr>
<td>Signed Exact English</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Pidgin Signed English</td>
<td>3</td>
<td>14.3</td>
</tr>
<tr>
<td>Total communication</td>
<td>2</td>
<td>9.5</td>
</tr>
<tr>
<td>Deaf children’s primary mode of communication with parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>12</td>
<td>57.1</td>
</tr>
<tr>
<td>American Sign Language</td>
<td>5</td>
<td>23.8</td>
</tr>
<tr>
<td>Signed Exact English</td>
<td>2</td>
<td>9.5</td>
</tr>
<tr>
<td>Pidgin Signed English</td>
<td>3</td>
<td>14.3</td>
</tr>
<tr>
<td>Total communication</td>
<td>4</td>
<td>19.0</td>
</tr>
<tr>
<td>Mean age abuse started (SD)</td>
<td>8.8 (3.2)</td>
<td>10.9 (3.1)</td>
</tr>
<tr>
<td>Mean age abuse stopped (SD)</td>
<td>12.0 (3.9)</td>
<td>12.3 (3.6)</td>
</tr>
</tbody>
</table>

<sup>a</sup>Participants could choose more than one answer.

communication, and all but one reported using English when communicating with their parents. Thus, as expected, most of the hearing victims could communicate with their parents in their preferred mode of communication--English. Deaf victims, and deaf people in general, face a markedly different situation. Most deaf victims reported using
ASL as their primary form of communication, but had to use English to communicate with their parents. This is an indication of a communication barrier between the deaf victims and their parents.

Attending a deaf school has been hypothesized to be a risk factor for abuse. As expected, none of the hearing victims attended a deaf school for any part of their education. In contrast, 76.2% of the deaf victims went to the deaf school for at least 2 years. However, deaf victims spent an average of 6.86 (SD = 5.73) years at a deaf school; deaf people who were not victims spent an average of 6.84 (SD = 5.88) years at a deaf school. This indicates that deaf schools were not a risk factor for abuse in this sample.

Mental Health Status

A two-way ANOVA was computed to determine whether there were differences in overall mental health (as measured by the OQ-45.2) based on hearing status and/or sexual abuse status (see Table 3). Deaf respondents had statistically significant higher OQ-45.2 scores (m = 50.10; SD = 24.87) than the hearing respondents (m = 41.49; SD = 20.00; F = 3.382; p = 0.036). However, neither of the scores reached the cutoff score of 63, which separates the normal symptom level and the clinically significant symptom level. There was also a significant difference between scores of all sexual abuse victims and all of the nonvictims when the hearing and deaf groups were combined (F = 9.019; p = .003). Although there was not a significant interaction between hearing status and abuse status, the mean score of the deaf victims did reach the clinical cutoff level of 63.
Table 3

Mental Health Status as Measured by the OQ-45.2

<table>
<thead>
<tr>
<th>Variable</th>
<th>M total OQ-45 score</th>
<th>SD</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaf</td>
<td>50.10</td>
<td>24.87</td>
<td>3.382</td>
<td>.036</td>
</tr>
<tr>
<td>Hearing</td>
<td>41.49</td>
<td>20.00</td>
<td>9.019</td>
<td>.003</td>
</tr>
<tr>
<td>Sexual abuse status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victim</td>
<td>57.80</td>
<td>30.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonvictim</td>
<td>44.39</td>
<td>20.34</td>
<td>1.070</td>
<td>0.345</td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaf victim</td>
<td>63.29</td>
<td>32.16</td>
<td>1.070</td>
<td>0.345</td>
</tr>
<tr>
<td>Hearing victim</td>
<td>51.86</td>
<td>23.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaf nonvictim</td>
<td>46.64</td>
<td>21.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing nonvictim</td>
<td>40.28</td>
<td>19.45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this study, the number of deaf and hearing victims and nonvictims was relatively small and statistical significance is influenced by the sample size. Thus, standard mean effect sizes, which are not influenced by sample size, were computed. The difference between the total deaf group and the total hearing group resulted in a standard mean effect size of .37. The difference between the deaf victims and hearing victims was a standard mean effect size of .38 and the difference between the deaf and hearing nonvictims was a standard mean effect size of .31. All of these effect sizes are small, indicating no meaningful group differences (Cohen, 1992). The most notable difference was found between victims and nonvictims when the deaf and hearing groups were combined, with a standard mean effect size of .60, which is considered medium (Cohen).

The hearing victim group did not contain any males, so to compare the mental
health status of deaf and hearing female victims, the males were removed from the deaf victim group and a $t$ test was conducted. The mean for the deaf female victim group was 61.0 ($SD = 30.0$), and the mean for the hearing female victim group was 51.9 ($SD = 23.2$). The results of the $t$ test indicate that there was not a significant difference between these two groups ($t = -.715$).

Characteristics of the Perpetrators

The respondents were asked to provide information about the number of perpetrators they had, their relationship with the perpetrators, the perpetrators' hearing status, and age (see Table 4). All of the hearing sexual abuse victims had only one perpetrator. This is in contrast to 61% of the deaf victims who were abused by more than one perpetrator. The relationship between the hearing victims and their perpetrators included: brothers, a schoolteacher, another child, and other relatives. The relationships between the deaf victims and the perpetrators included a father, brothers, schoolteachers, a dorm parent, school staff members, other children, other relatives, neighbors, and other people (respondents reported other perpetrators--a man the victim met in an e-mail chat room, a friend's brother-in-law, a deaf visitor, and church leaders). As expected, all of the hearing victims were abused by hearing individuals. In the deaf group, 14 abusers were deaf and 27 were hearing.

Characteristics of the Abuse

In order to learn more about the characteristics of abuse, respondents were asked
Table 4

Characteristics of the Perpetrators

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaf (N = 21)</th>
<th></th>
<th>Hearing (N = 7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Number of abusers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>38.1</td>
<td>7</td>
<td>100.0</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>19.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>28.6</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>4.8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>4.8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Relationship of abuser to the victim³</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>1</td>
<td>4.8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Mother</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Brother</td>
<td>4</td>
<td>19.0</td>
<td>2</td>
<td>28.6</td>
</tr>
<tr>
<td>Sister</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>School teacher</td>
<td>4</td>
<td>19.0</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Dorm parent</td>
<td>1</td>
<td>4.8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>School staff</td>
<td>4</td>
<td>19.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Another child</td>
<td>5</td>
<td>23.8</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Another relative</td>
<td>6</td>
<td>28.6</td>
<td>3</td>
<td>42.9</td>
</tr>
<tr>
<td>Neighbor</td>
<td>4</td>
<td>19.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>28.6</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Hearing status of the abusers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing</td>
<td>27</td>
<td>65.8</td>
<td>7</td>
<td>100.0</td>
</tr>
<tr>
<td>Deaf</td>
<td>14</td>
<td>34.1</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Mean age of the abuser (SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youngest abuser</td>
<td>12</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oldest abuser</td>
<td>60</td>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

³Participants could choose more than one answer.

to answer questions regarding the number of abuse incidents, the place where the abuse occurred, and what occurred during the abuse (see Table 5). Despite similar ages for the abuse starting and stopping for both groups of victims, deaf victims reported experiencing more incidents of abuse than hearing victims. The place where the abuse occurred was similar for both groups (their own homes, other peoples homes, a hearing
Table 5

Characteristics of the Abuse

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaf (N = 21)</th>
<th>Hearing (N = 7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Number of abusers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 time</td>
<td>6</td>
<td>28.6</td>
</tr>
<tr>
<td>2-5 times</td>
<td>5</td>
<td>23.8</td>
</tr>
<tr>
<td>6-10 times</td>
<td>5</td>
<td>23.8</td>
</tr>
<tr>
<td>10-20 times</td>
<td>3</td>
<td>14.3</td>
</tr>
<tr>
<td>20 or more times</td>
<td>2</td>
<td>9.5</td>
</tr>
<tr>
<td>Placed where abuse occurred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>8</td>
<td>38.1</td>
</tr>
<tr>
<td>Other home</td>
<td>9</td>
<td>42.9</td>
</tr>
<tr>
<td>Deaf school</td>
<td>6</td>
<td>28.6</td>
</tr>
<tr>
<td>Hearing school</td>
<td>1</td>
<td>4.8</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>23.8</td>
</tr>
<tr>
<td>Force used</td>
<td>4</td>
<td>19.0</td>
</tr>
<tr>
<td>Told would be hurt</td>
<td>4</td>
<td>19.0</td>
</tr>
<tr>
<td>Sexual abuse acts*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victim had to look at abuser’s private parts</td>
<td>8</td>
<td>38.1</td>
</tr>
<tr>
<td>Victim had to touch the abuser’s private parts</td>
<td>10</td>
<td>47.6</td>
</tr>
<tr>
<td>Victim had to perform oral sex</td>
<td>1</td>
<td>4.8</td>
</tr>
<tr>
<td>Sexual intercourse occurred</td>
<td>6</td>
<td>28.6</td>
</tr>
<tr>
<td>Perpetrator looked at the victim’s private parts</td>
<td>11</td>
<td>52.4</td>
</tr>
<tr>
<td>Perpetrator touched the victim’s private parts</td>
<td>19</td>
<td>90.5</td>
</tr>
<tr>
<td>Perpetrator performed oral sex</td>
<td>7</td>
<td>33.3</td>
</tr>
<tr>
<td>Victim can’t remember all that happened</td>
<td>5</td>
<td>23.8</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>4.8</td>
</tr>
</tbody>
</table>

*Participants could choose more than one answer.

school) with the exception of deaf victims who were abused at a deaf school (discussed below). Five of the deaf victims and one of the hearing victims reported being abused in “other” places not listed in the survey. These victims reported the abuse happening in such places as motor vehicles, a lake, a bus, and a bus station.

Of the respondents attending a deaf school for at least part of their education, six
individuals (8.1% of the total group and 28.6% of the deaf victim group) were abused at the school. Thus, although deaf schools do not seem to be a risk factor for abuse, a significant portion of abuse of deaf individuals does take place at deaf schools.

Respondents were asked to describe the types of sexual abuse acts that occurred during the abuse. While similarities exist in the abuse experienced by victims of both groups, overall deaf victims experienced more severe forms of abuse than did hearing victims. Two (28.6%) of the hearing victims had to look at their abusers' genitals, and one (14.3%) had to touch her abuser's genitals. Four (57.1%) of the hearing victims had perpetrators who looked at their genitals and all 7 (100%) had to touch their abuser's genitals. One deaf victim (4.8%) had to perform oral sex on the perpetrator, 6 (28.6%) had to have sexual intercourse with the abuser, and abusers touched 19 (90.5%) of the deaf victims' genitals, and performed oral sex on 7 (33.3%) of the victims. Five deaf victims (23.8%) and one hearing victim (14.3%) reported that they could not remember all of the details of the abuse. Force and threats of harm were used in the abuse of 19.0% of the deaf victims. Force was used in the abuse of 28.6% of the hearing victims and threats were used with 42.9% of the hearing victims. Thus, although the deaf sample reported more severe types of abuse, force was more common in the abuse of victims in the hearing sample than in the abuse of victims in the deaf sample.

The Victim's Experience “Telling” about the Abuse

Victims were also asked to provide information about the trauma they
experienced due to the abuse and their experience of reporting the abuse to other people (see Table 6). There was some variation in how much victims reported being upset by the abuse. Three (14.3%) of the deaf victims reported not being upset by the abuse, while 57.1% of the deaf victims and 57.1% of the hearing victims reported being upset by the abuse “a lot.” Respondents were asked to write in any problems they experienced as a result of the abuse. Feelings reported by hearing victims as resulting from the abuse reported were guilt, anger, fear, anxiety, depression, a feeling of needing to control, and feeling emotionally “dysfunctional.” Other problems reported by hearing victims were negatively affected sexual relationships, nightmares, stomachaches, and nausea. Feelings reported by deaf victims resulting from the abuse reported were guilt, shame, fear (including a fear of men and a fear of being touched), and emotional withdrawal. Other problems reported by deaf victims were PTSD symptoms, panic attacks, a dislike for men, nightmares, stomachaches, and bleeding.

A majority of victims in both groups did not tell anyone about the abuse until a long time after the abuse had occurred. In the group of deaf victims, the most common reasons for not telling were not knowing how to tell, not knowing the abuse was wrong, being afraid to tell, and not knowing who to tell. In the group of hearing victims, the most common reasons for not telling were feeling too guilty to tell, not knowing how to tell, and being afraid to tell. Interestingly, 38.1% of the deaf victims, but no hearing victims, said that they did not know that the abuse was wrong.

The one hearing victim (14.3%) who did tell, told her mother. Of the deaf victims, 33.3% told their mothers, 14.3% told their fathers, 4.8% told a teacher, 9.5%
### Table 6

**Victims’ Experiences with Telling about the Abuse**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaf (N = 21)</th>
<th>Hearing (N = 7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Felt traumatized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not much</td>
<td>3</td>
<td>14.3</td>
</tr>
<tr>
<td>Some</td>
<td>6</td>
<td>28.6</td>
</tr>
<tr>
<td>A lot</td>
<td>12</td>
<td>57.1</td>
</tr>
<tr>
<td>Victim told about the abuse while still a child</td>
<td>7</td>
<td>33.3</td>
</tr>
<tr>
<td>Victim did not tell</td>
<td>14</td>
<td>66.7</td>
</tr>
<tr>
<td>Reasons victims did NOT tell‡</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felt too guilty to tell</td>
<td>3</td>
<td>14.3</td>
</tr>
<tr>
<td>Worried he/she would not be believed</td>
<td>4</td>
<td>19.0</td>
</tr>
<tr>
<td>Did not know how to tell</td>
<td>9</td>
<td>42.9</td>
</tr>
<tr>
<td>Did not know the abuse was wrong</td>
<td>8</td>
<td>38.1</td>
</tr>
<tr>
<td>Afraid to tell</td>
<td>7</td>
<td>33.3</td>
</tr>
<tr>
<td>Perpetrator’s threats prevented telling</td>
<td>4</td>
<td>19.0</td>
</tr>
<tr>
<td>Did not know who to tell</td>
<td>7</td>
<td>33.3</td>
</tr>
<tr>
<td>Who the victims told§</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>7</td>
<td>33.3</td>
</tr>
<tr>
<td>Father</td>
<td>3</td>
<td>14.3</td>
</tr>
<tr>
<td>Teacher</td>
<td>1</td>
<td>4.8</td>
</tr>
<tr>
<td>Friend</td>
<td>2</td>
<td>9.5</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>9.5</td>
</tr>
<tr>
<td>What happened when the victim told</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The person believed</td>
<td>3</td>
<td>14.3</td>
</tr>
<tr>
<td>The person did not believe</td>
<td>4</td>
<td>19.0</td>
</tr>
<tr>
<td>The person could not understand</td>
<td>1</td>
<td>4.8</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>9.5</td>
</tr>
<tr>
<td>Victim has talked about feelings related to abuse</td>
<td>9</td>
<td>42.9</td>
</tr>
<tr>
<td>Victim has not talked about related feelings</td>
<td>12</td>
<td>57.1</td>
</tr>
<tr>
<td>Victim talked about feelings related to abuse:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>While it was happening</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Shortly after it happened</td>
<td>2</td>
<td>9.5</td>
</tr>
<tr>
<td>A long time later</td>
<td>13</td>
<td>61.9</td>
</tr>
</tbody>
</table>

(continue)
told friends, and 9.5% said they told "other" people. The hearing person who told reported that she was believed when she told. Three of the deaf victims (14.3%) reported that they were believed; however, four victims (19.0%) reported not being believed and one (4.8%) said the person could not understand.

Thirteen deaf victims (61.9%) and four (57.1%) hearing victims reported talking about the abuse a long time after it happened. Deaf victims reported talking to a friend, a counselor, a church leader, and a family member. Hearing victims reported talking to a family member, a counselor, and a friend. As expected, the hearing victims communicated through talking when sharing their experiences. Deaf victims, on the other hand, were more likely to use sign language, an interpreter, writing, typing, and other. Only one deaf victim communicated through talking. Ten of the deaf victims
(47.6%) and one of the hearing victims (14.3%) reported that they still felt like they needed to talk about the abuse.
CHAPTER V

DISCUSSION

The results of this study suggest that the prevalence rate of sexual abuse may be higher for deaf children than for hearing children. In this sample, nearly twice as many deaf children were abused than hearing children. Although this trend supports Sullivan and others' (1987) hypothesis, the difference in prevalence rates found in this study was not statistically significant. A larger sample of both deaf and hearing individuals would help to clarify whether or not a true difference in rates exists. Although all of the studies described by Sullivan et al. indicated that deaf children were sexually abused at a higher rate than were hearing children, the prevalence rates in the studies differed from each other as well as from the findings in this study. Two of the studies had prevalence rates over twice the rate in this study and one had a prevalence rate half of the rate in the current study. A larger sample of deaf individuals would help to identify a more accurate prevalence rate of sexual abuse among the deaf. However, due to the ambiguities in defining sexual abuse, as described above, determining an accurate prevalence rate will be difficult.

The data also supported the hypothesis that females are abused more often than males. Out of the 63 males (deaf and hearing combined) who responded to the survey, 7.93% (n = 5) were sexually abused. Out of the 106 females (deaf and hearing combined) who responded to the survey, 21.70% (n = 23) were sexually abused. This is in line with the results of other recent surveys. One found that 12-17% of females (22% if unadjusted for no-response rates) and 5-8% of males (8.5% if unadjusted for no-
response rates) were victims of childhood sexual abuse (Stevenson, 1999). Another recent survey found that 27% of adult women and 16% of adult males reported having been sexually abused as children (Schultz, 1995).

The deaf victims in this study would be expected to experience more psychological distress than would hearing victims. This is because the deaf victims were abused more frequently than were the hearing victims, although the duration of the abuse was about the same. Previous research has consistently shown that an increased frequency or duration of abuse is associated with more negative effects for the victim (Kendall-Tackett et al., 1993; Nash et al., 1993; Schultz, 1995). Also, the deaf victims in this study were abused by more perpetrators than were the hearing victims, and the deaf victims experienced more severe forms of abuse. Previous research has also found evidence that the more severe sexual abuse is, the more negative outcomes the victim tends to experience (Barnett et al., 1997; Mennen & Meadow, 1995; Schultz; Wyatt & Newcomb, 1990). However, force was used more with hearing victims than with deaf victims, and previous research has consistently shown that the use of force resulted in increased symptomatology of posttraumatic stress in adult survivors of sexual abuse (Schultz).

Despite these differences in characteristics of the abuse between the two samples, there was not a significant difference in the psychological functioning between deaf and hearing victims as reflected by the OQ-45.2 scores. The deaf victims of sexual abuse did score, on average, about 13 points higher than the deaf who had not been abused, 12 points higher than hearing victims, and 22 points higher than the whole
hearing group. The deaf victim group was the only group to reach the clinical level on the OQ-45.2.

There are several possible explanations for these findings. It may be that the OQ-45.2 was not sensitive enough to detect important differences between groups, or to detect the symptomatology related to sexual abuse that deaf victims experience. The results may also be an indication of cultural or language differences in viewing or reporting mental health problems between the deaf and hearing population. Another possibility is that there may simply be little difference between the two groups of victims.

The deaf group as a whole scored about 10 points higher on the OQ-45.2 than the hearing group as a whole. This indicates that deaf people in general may experience more psychological distress than hearing people. There are many different possible explanations for this difference. One possible explanation may be the difficulties that deaf people face when communicating with the hearing world. Another possible explanation may be that deaf people in general are more susceptible to other forms of abuse than are hearing people. Still another possibility is that the OQ-45.2 may be a biased measure toward deaf people because deaf people were not used in its standardization sample. Further investigation into this difference is warranted before conclusions can be drawn on this issue.

The most notable effect size was found for the difference between victims and nonvictims, with victims reporting more mental health problems than nonvictims. This difference was also found to be statistically significant. These findings support
numerous other studies that have also shown that victims of sexual abuse suffer more symptoms than nonvictims. Previous studies have investigated depression, PTSD and other symptoms of sexual abuse finding significant differences between groups. This study, however, did not investigate specific long- or short-term symptoms but instead used a general measure of mental health.

The most striking difference between the deaf and hearing groups regarding the perpetrators was that deaf perpetrators abused deaf victims, while none of the hearing were abused by deaf perpetrators. Most of the victims in this study were abused by people that they knew (e.g., family members and other children), and most hearing people have little or no contact with deaf people. Thus, it would not be expected that deaf perpetrators would sexually abuse hearing children. However, many deaf children have contact with other deaf people (e.g., through school, church and social activities), which would allow for relationships to be established and for sexual abuse to take place. Despite all of this, deaf children were more likely to be abused by hearing people than by other deaf people. This may be due to deaf children interacting with more hearing people than other deaf people.

On the survey, the respondents were asked what problems, if any, had resulted from the abuse and the extent to which the abuse had affected them. Most of the victims reported being upset by the abuse. However, there were a few who reported not being upset by the abuse. These few respondents support the hypothesis that some victims of sexual abuse may be asymptomatic (Kendall-Tackett et al., 1993; Rind et al., 1998). Another possible explanation for this is that the respondents did not recognize
the symptoms that they experienced as resulting from the sexual abuse, especially if their symptoms did not manifest themselves until a later time (Milgram, 1998).

The victims who did report problems resulting from the abuse listed emotional, social, and physical problems. These findings support what has been found in previous research on the sequelae of sexual abuse (Barnett et al., 1997). In the present study, victims were asked to list the problems that they experienced. Using this style of question probably led to an incomplete list of symptoms formulated by victims.

Most of both the deaf and hearing victims reported that they did not tell about the abuse until a long time after the abuse occurred. Members of both groups also said that they did not tell because they did not know how to tell. While this was an expected outcome for the deaf group, it was not as expected for the hearing group. Several researchers have hypothesized that many deaf children do not have advanced enough language to be able to “tell” if sexual abuse happens (LaBarre, 1998; Sullivan et al., 1987). Also, deaf children do not receive the same incidental information relating to sexual abuse that hearing children do through their hearing (Sullivan et al.). Hearing children, on the other hand, use the same language as their parents and so are thought to be at an advantage over deaf children.

An interesting difference between the groups was that eight deaf victims said that they did not know that the abuse was wrong, while none of the hearing victims reported not knowing it was wrong. This finding supports the hypothesis that many deaf children are not receiving the same information about sexual abuse as hearing children (Sullivan et al., 1987). A difference in knowledge would not be entirely
surprising considering that 11 of the deaf victims not only reported using ASL as their primary form of communication, but also having to communicate with their parents through English or they would not be able to communicate with them at all. This also indicates the need to use sexual abuse prevention programs among all deaf children.

This same communication barrier between parents and children was hypothesized to cause the deaf victim not to be understood when trying to tell. However, only one of the deaf victims reported trying to tell and not being understood. Interestingly, four of the deaf victims who told reported not being believed and one deaf victim was believed when she told. Only one of the hearing victims told, so not many comparisons can be made on this issue.

A communication barrier was hypothesized to cause deaf victims to have inadequate social support when dealing with the abuse. Deaf victims who did talk about it later tended to use ASL to tell about their feelings related to the abuse. They were also most likely to talk with their friends or a counselor about the abuse. While hear victims simply used talking to communicate, deaf victims had to use other techniques to overcome the communication barrier (e.g., writing and typing). About half of the deaf victims still felt like they needed to talk with someone about the abuse while six out of seven hearing victims felt like they no longer needed to discuss the abuse.

Limitations

There are several limitations in this study. First, the sample of sexual abuse
victims was rather small, which means the results must be interpreted with caution. With small samples, differences in groups must be large in order to be found statistically significant. However, effect sizes are not affected by sample size, and they were computed to ensure important differences were not overlooked due to sample size. Also, generalizing from an extremely small sample to a large group is risky because the sample may not be representative of the group. Thus, the conclusions drawn in this study are preliminary. Another limitation related to the small sample size is that the sample was too small to make many gender comparisons.

Second, there was a low overall response rate (26.6%). The response rate for each group (deaf and hearing) cannot be calculated because of the possibility that the list from the TTY phone book may have contained names of hearing individuals and the list from the Cache Valley phone book may have contained the names of deaf individuals. According to Haugaard and Emery (1989), a low response rate may result in overreporting of the prevalence of child sexual abuse. A possible reason that so few deaf people responded may be a result of the level and amount of English reading skills required to complete the survey. Realizing that many deaf adults struggle to read English, a video survey was considered so the questions could be signed in ASL. However, a mailed survey was used due to the financial constraints of the author. As an attempt to improve the results from a written mailed survey, the survey was reviewed by two college professors and 10 deaf people to ensure readability. In the end, the survey still required a lot of reading and possibly too high of a reading level (several deaf respondents suggested that this was the case). Another possible explanation of the
low response rate involves the sensitive nature of the topic. The deaf community in Utah is relatively small and so deaf victims may not have trusted that their responses would remain truly confidential. A similar situation may have also caused a lower response rate from the hearing group (one hearing respondent reported that she was concerned about confidentiality).

A third limitation of this study is that it is a retrospective study and the reports were not required to be substantiated cases of sexual abuse. With retrospective studies, it is difficult to determine whether the sexual abuse caused the symptoms or whether other factors (e.g., dysfunctional home or low social economic status) caused the symptoms (Barnett et al., 1997). Also, there are discrepancies between individual definitions of sexual abuse, which means that some respondents may have answered “no” when they in fact did experience sexual abuse and some may have answered “yes” when they did not experience child sexual abuse. Another possibility is that respondents could have misrepresented their experiences purposefully.

A fourth limitation of this study is sampling. While the initial mailing of the survey was sent to a random sample of hearing and deaf people, individuals decided whether or not to respond. Thus, there may be important differences between responders and nonresponders that cannot be detected in the results of this study.

A fifth limitation of this study is also related to the retrospective nature of this study. Changes may have occurred since participants were children, which may have influenced risk factors for deaf children. Examples of this include the fact that many more deaf children are currently being mainstreamed than 20 years ago. Thus, there
may be new risk factors that were not a problem many years ago such as working with interpreters, interacting with many more hearing peers with whom they cannot effectively communicate, or not being able to communicate with the classroom teacher. Also, entire educational movements have occurred during this century—a move from the use of sign language as a part of education to almost complete oralism and back to signing. These movements may have increased or decreased the education level of deaf children or they may have increased or decreased the communication abilities of deaf children.

Future Direction and Research

As was stated above, the findings in this study are preliminary. There is a definite need for further research in this area. The question still remains as to whether or not deaf children are more at risk to be victims of sexual abuse than are hearing children. In this study, deaf individuals were more likely to be sexually abused as children than were hearing individuals; however, this difference was not statistically significant. Because many deaf struggle with English, using an interview or videotape format would probably be preferable. If it had been possible to use this format, the response rate would likely have been higher and the information gleaned would probably have been more accurate. This would require a researcher who was skilled in ASL and who was quite knowledgeable about deaf culture.

Future research could also focus more specifically on the symptoms that deaf victims experience after sexual abuse. A possible format for collecting such data would
be diagnostic interviews. Another possible format would be to list a wide variety of symptoms from which the victim can choose those symptoms that fit their experience. This would help in determining what kinds of interventions are needed for deaf victims both in the short and the long term.

Future research would also be beneficial in determining the factors that contributed to the deaf group scoring higher than the hearing group on the OQ-45.2. Several possible reasons were listed above; however, there may be other important reasons that have not been considered in the literature. This may be linked to other important questions such as whether or not adequate mental health services are available to deaf people or how communication barriers influence the sense of well being of deaf children.


APPENDICES
Appendix A

Survey
Sexual Abuse in Utah

First please answer a few questions that are general characteristics about you. Please answer the question or circle the best answer.

1. How old are you? ____

2. Are you MALE or FEMALE (Circle one)

3. How much school have you finished?
   1. I DID NOT FINISH PAST THE 8TH GRADE.
   2. I GRADUATED FROM HIGH SCHOOL.
   3. I WENT TO SOME COLLEGE.
   4. I GRADUATED FROM COLLEGE.

4. What is your degree of hearing loss? (You can use the picture to help you remember your hearing loss)

   ![Audiogram Diagram]

   This is a picture of an audiogram. You can use it to help you figure out your hearing loss.

   1. I CAN HEAR FINE. (If you can hear fine go to Page 2)
   2. MILD LOSS (27 TO 40 dB)
   3. MODERATE LOSS (41 TO 55 dB)
   4. MODERATE-SEVERE LOSS (56 TO 70 dB)
   5. SEVERE LOSS (71 TO 90 dB)
   6. PROFOUND LOSS (91 OR GREATER)
5. What language or sign system do you use most when chatting with others?
   1. ENGLISH
   2. AMERICAN SIGN LANGUAGE
   3. SIGNED EXACT ENGLISH (SEE1)
   4. PIGIN (PSE)
   5. TOTAL COMMUNICATION
   6. OTHER, please tell what ______

6. What language do your parents use to chat with you most?
   1. ENGLISH
   2. AMERICAN SIGN LANGUAGE
   3. SIGNED EXACT ENGLISH (SEE1)
   4. PIGIN (PSE)
   5. TOTAL COMMUNICATION
   6. OTHER, please tell what ______

7. Are your parents
   1. HEARING
   2. DEAF
   3. HARD OF HEARING

8. What kind of school did you go to? (Please fill in the blank for those that fit you.)
   1. I WAS IN A HEARING CLASS ALL DAY FOR _____ YEARS.
   2. I WAS IN A DEAF CLASSROOM IN A HEARING SCHOOL FOR _____ YEARS.
   3. I WENT TO A DEAF SCHOOL FOR _____ YEARS.
   4. I WENT HALF OF THE DAY TO A DEAF SCHOOL AND HALF OF THE DAY TO A HEARING CLASS FOR _____ YEARS.
   5. OTHER, please tell what kind of school ________________________________
Sexual abuse means that a person used a child for sex things. For example, the person may have touched the child's body in the private parts. The person may have had sex with the child. The person may have forced the child to touch his or her body in private places. The person may have had the child look at his or her private places. There may be other sex things that a person can do and it would still be sexual abuse. The child must be under 18 years old for it to be called sexual abuse. A child can sexually abuse another child if the abuser is older or is in control.

1. When you were a child were you sexually abused?
   1. NO  (If you answered no, go to page 6)
   2. YES  (If you answered yes, keep going.)

2. About how old were you when the sexual abuse happened?
   1. IT STARTED WHEN I WAS _______ YEARS OLD.
   2. IT STOPPED WHEN I WAS _______ YEARS OLD.

3. About how many times were you sexually abused?
   1. 1 TIME  (If you answered 1 TIME, go to question 5)
   2. 2 - 5 TIMES
   3. 6 - 10 TIMES
   4. 11 - 20 TIMES
   5. MORE THAN 20 TIMES

4. How often did the abuse happen? For example: one time a month, one time a week, or twice a year.

5. Where did it happen? (mark all that are true)
   1. HOME
   2. SCHOOL  What kind of school? HEARING OR DEAF SCHOOL
   3. ANOTHER PERSON'S HOME
   4. OTHER, please tell where ___________________________

6. How many people sexually abused you?
   1. 1
   2. 2
   3. MORE THAN 2; please tell how many _____
7. Who sexually abused you? (mark all that are true)
   1. FATHER
   2. MOTHER
   3. BROTHER
   4. SISTER
   5. SCHOOL TEACHER
   6. DORM PARENT
   7. OTHER SCHOOL STAFF
   8. ANOTHER CHILD
   9. ANOTHER RELATIVE
   10. A NEIGHBOR
   11. OTHER, please tell who: ___________________

8. Was the person who sexually abused you hearing or deaf?
   1. HEARING
   2. DEAF
   3. If more than one person abused you, please write down who abused you (not their names!) and write down if the person was hearing or deaf. For example: My school teacher abused me and he is hearing.

9. How old was the person who abused you? ______
   If more than one person abused you, please write down who abused you (not their names!) and write down their age. For example: My dad abused me and he was about 40. _______________

10. These are pictures of a boy and a girl. Put an X on the picture to show where you were sexually abused. If you are a girl please mark on the picture of the girl. If you are a boy please mark on the picture of the boy. For example: If you are a girl and the person touched your breasts you would place an X on the chest like this: Example:
11. Put an X on the body parts that the person used to sexually abuse you. For example if a man looked at your private parts and touched them with his hands you would place X’s on his eyes and his hands. If both a man and woman abused you please mark both.

Example:

![Diagram of body parts with X's on eyes and hands for both man and woman.]

12. When you were sexually abused, (circle yes or no for each one)

1. DID YOU HAVE TO LOOK AT HIS OR HER PRIVATE PARTS? YES / NO
2. DID YOU HAVE TO TOUCH HIS OR HER PRIVATE PARTS? YES / NO
3. DID YOU HAVE TO PUT YOUR MOUTH ON HIS OR HER PRIVATE PARTS? YES / NO
4. DID YOU HAVE TO HAVE SEX? YES / NO
5. DID THE PERSON LOOK AT YOUR PRIVATE PARTS? YES / NO
6. DID THE PERSON TOUCH YOUR PRIVATE PARTS? YES / NO
7. DID THE PERSON PUT HIS OR HER MOUTH ON YOUR PRIVATE PARTS YES / NO
8. YOU DON'T REMEMBER YES / NO
9. OTHER, please tell what

13. Children who are sexually abused feel they have to do sex things that they do not want to do. They feel they have to do it because the abuser tells the child what to do or force is used. Examples of force are pointing a gun at you, using a knife, hurting the child and other things like that. Was force used when you were sexually abused?

1. NO
2. YES, please tell what happened

14. Sometimes when children are sexually abused they are told they will be hurt if they tell or if they do not do what they are told. When you were sexually abused did the person tell you he or she would hurt you?

1. NO
2. YES, please tell what was said

15. How much were you upset by the sexual abuse?

1. NOT MUCH
2. A LITTLE BIT
3. SOME
4. A LOT
16. Did you have any problems because of the abuse? (Example: bad dreams, bleeding, stomach aches, fear)
   1. NO
   2. YES; please tell what the problems were__________________________

17. Did you tell someone about the abuse while you were still a child?
   1. NO (If you answered no)
   2. YES (If you answered yes go to #18)

   Why didn’t you tell? (Circle all that are true)
   1. I FELT GUILTY.
   2. I DID NOT THINK ANYONE WOULD BELIEVE ME.
   3. I DID NOT KNOW HOW TO TELL.
   4. I DID NOT KNOW THAT SEXUAL ABUSE WAS WRONG AT THE TIME.
   5. I WAS AFRAID TO TELL.
   6. THE PERSON WHO SEXUALLY ABUSED ME SAID HE OR SHE WOULD HURT ME IF I TOLD.
   7. I DID NOT KNOW WHO TO TELL.
   8. OTHER ____________________________
      (NOW GO TO #20)

18. Who did you tell?
   1. MOTHER
   2. FATHER
   3. TEACHER
   4. FRIEND
   5. OTHER, please tell who ________________

19. What happened when you told?
   1. THE PERSON BELIEVED YOU
   2. THE PERSON DID NOT BELIEVE YOU
   3. THE PERSON COULD NOT UNDERSTAND YOU
   4. OTHER, please tell what happened ________________________________

20. Did someone talk with you about any bad feelings you had after the abuse?
   1. NO (If you answered no, go to question #25)
   2. YES (If you answered yes, keep going)

21. When were you able to talk about your feelings?
   1. WHILE THE ABUSE WAS STILL HAPPENING
   2. SHORTLY AFTER IT HAPPENED (less than one year after it happened)
   3. A LONG TIME LATER (more than one year after it happened)

22. Who did you talk with about your feelings?
   1. COUNSELOR
   2. CHURCH LEADER
   3. HOSPITAL PERSON
   4. FRIEND
   5. FAMILY MEMBER
   6. OTHER, please tell who ________________

23. Did you feel better after talking about it?
   1. NO
   2. YES
24. How did you communicate with the person who helped you?
1. THROUGH SIGN LANGUAGE
2. THROUGH AN INTERPRETER
3. WE WROTE BACK AND FORTH
4. WE TALKED, ORAL COMMUNICATION
5. WE TYPED BACK AND FORTH
6. OTHER, please tell how ________________

25. Do you feel you still need to talk about the abuse with someone who could help you?
1. YES
2. NO

These next questions are about your general mental health. Please fill them out whether you were sexually abused or not. Put an X in the box that best answers the question for you.

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Not Often</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I get along well with others</td>
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<tr>
<td>2. I get tired quickly</td>
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<td>3. I feel no interest in things</td>
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<td>4. I feel stressed at work or at school</td>
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<tr>
<td>5. I blame myself for things (For example I think bad things that happen are my fault)</td>
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<tr>
<td>6. I feel irritated (upset)</td>
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<tr>
<td>7. I feel unhappy in my marriage or another important relationship</td>
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<td>8. I have thoughts of killing myself</td>
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<tr>
<td>9. I feel weak</td>
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<tr>
<td>10. I feel fearful</td>
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<tr>
<td>11. After heavy drinking, I need a drink the next morning to get me going. (If you do not drink, mark NEVER)</td>
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<td>12. I find my work or school satisfying</td>
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<td>13. I am a happy person</td>
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<tr>
<td>14. I work/study too much</td>
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<tr>
<td>15. I feel worthless</td>
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<tr>
<td>16. I am concerned about family troubles</td>
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<tr>
<td>17. I have an unfulfilling (not good) sex life</td>
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<td>18. I feel lonely</td>
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<tr>
<td>19. I have arguments often</td>
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<tr>
<td>20. I feel loved and wanted by other people.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>(Example: I feel other people care about me.)</td>
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</tr>
<tr>
<td>21. I enjoy my free time.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>22. I have difficulty concentrating (paying attention)</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>23. I feel hopeless about the future.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>24. I like myself.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>25. Thoughts that bother me come into my mind that I cannot get rid of.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>26. I feel bothered by people who criticize my drinking (or drug use).</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>(If you don’t drink or use drugs mark NEVER)</td>
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<td></td>
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<tr>
<td>27. I have an upset (sick) stomach.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>28. I am not working or studying as well as I used to.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>29. My heart pounds too much.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>30. I have trouble getting along with friends and other people I know well.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>31. I am satisfied with my life.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>32. I have trouble at work or school because of drinking or drug use.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>(If you do not drink or use drugs mark NEVER)</td>
<td></td>
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<tr>
<td>33. I feel that something bad is going to happen.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
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<tr>
<td>34. I have sore muscles.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
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<tr>
<td>35. I feel afraid of open spaces, or driving, or being on buses, subways and so forth.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>36. I feel nervous.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>37. I feel my love relationships are full and complete (I am satisfied).</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>38. I feel that I am not doing well at work or school.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>39. I have too many fights or arguments at work or school.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>40. I feel something is wrong with my mind.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
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<tr>
<td>41. I have a hard time falling asleep or staying asleep.</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
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<tr>
<td>Question</td>
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<tr>
<td>I feel sad</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>I am satisfied with my relationships with others</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>I feel angry enough at work or school to do something that I may regret</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>(feel sorry for)</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
<tr>
<td>I have headaches</td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost Always</td>
</tr>
</tbody>
</table>
Appendix B

List of Modifications
Changes in the Outcome Questionnaire (OQ-45.2)

Original OQ-45.2
Instructions: Looking back over the last week, including today, help us understand how you have been feeling. Read each item carefully and mark the box under the category which best describes your current situation. For this questionnaire, work is defined as employment, school, housework, volunteer work, and so forth.

1. I get along well with others.
2. I tire quickly.
3. I feel no interest in things.
4. I feel stressed at work/school.
5. I blame myself for things.
6. I feel irritated.
7. I feel unhappy in my marriage/significant relationship.
8. I have thoughts of ending my life.
9. I feel weak.
10. I feel fearful.
11. After heavy drinking, I need a drink the next morning to get going. (If you do not drink, mark “never”)
12. I find my work/school satisfying.
13. I am a happy person.
14. I work/study too much.
15. I feel worthless.
16. I am concerned about family troubles.
17. I have an unfulfilling sex life.
18. I feel lonely.
19. I have frequent arguments.
20. I feel loved and wanted.

21. I enjoy my spare time.
22. I have difficulty concentrating.
23. I feel hopeless about the future.
24. I like myself.
25. Disturbing thoughts come into my mind that I cannot get rid of.
26. I feel annoyed by people who criticize my drinking (or drug use). (If not applicable, mark “never.”)
27. I have an upset stomach.
28. I am not working/studying as well as I used to.

Modified OQ-45.2
These next questions are about your general mental health. Please fill them out whether you were sexually abused or not. Put an X in the box that best answers the question for you.

1. I get along well with others.
2. I get tired quickly.
3. I feel no interest in things.
4. I feel stressed at work or at school.
5. I blame myself for things. (For example I think bad things that happen are my fault)
6. I feel irritated (upset).
7. I feel unhappy in my marriage or another important relationship.
8. I have thoughts of killing myself.
9. I feel weak.
10. I feel fearful.
11. After heavy drinking, I need a drink the next morning to get me going. (If you do not drink, mark NEVER)
12. I find my work or school satisfying.
13. I am a happy person.
14. I work/study too much.
15. I feel worthless.
16. I am concerned about family troubles.
17. I have an unfulfilling (not good) sex life.
18. I feel lonely.
19. I have arguments often.
20. I feel loved and wanted by other people. (Example: I feel other people care about me.)
21. I enjoy my free time.
22. I have difficulty concentrating. (paying attention)
23. I feel hopeless about the future.
24. I like myself.
25. Thoughts that bother me come into my mind that I cannot get rid of.
26. I feel bothered by people who criticize my drinking (or drug use). (If you don't drink or use drugs, mark NEVER.)
27. I have an upset (sick) stomach.
28. I am not working or studying as well as I used to.
29. My heart pounds too much.
30. I have trouble getting along with friends and close acquaintances.
31. I am satisfied with my life.
32. I have trouble at work/school because of drinking or drug use. (If not applicable, mark “never”)
33. I feel that something bad is going to happen.
34. I have sore muscles.
35. I feel afraid of open spaces, or driving, or being on buses, subways, and so forth.
36. I feel nervous.
37. I feel my love relationships are full and complete.
38. I feel that I am not doing well at work/school.
39. I have too many disagreements at work/school.
40. I feel something is wrong with my mind.
41. I have trouble falling asleep or staying asleep.
42. I feel blue.
43. I am satisfied with my relationship with others.
44. I feel angry enough at work/school to do something I may regret.
45. I have headaches.

29. My heart pounds too much.
30. I have trouble getting along with friends and other people I know well.
31. I am satisfied with my life.
32. I have trouble at work or school because of drinking or drug use. (If you do not drink or use drugs, mark NEVER.)
33. I feel that something bad is going to happen.
34. I have sore muscles.
35. I feel afraid of open spaces, or driving, or being on buses, subways, and so forth.
36. I feel nervous.
37. I feel my love relationships are full and complete (I am satisfied).
38. I feel that I am not doing well at work or school.
39. I have too many fights or arguments at work or school.
40. I feel something is wrong with my mind.
41. I have a hard time falling asleep or staying asleep.
42. I feel sad.
43. I am satisfied with my relationships with others.
44. I feel angry enough at work or school to do something that I may regret (or feel sorry for).
45. I have headaches.
Appendix C

Introduction Letter
Dear Participant,

In Utah __% of deaf people are sexually abused as children. Unfortunately, we don't know the answer to this question, and we need your help to find the answer. We are doing a research study to find the answer to this question and to learn more about the sexual abuse of deaf children in Utah. In this study we will look at both hearing and deaf people. It does not matter if you are deaf or hearing, your answers will be greatly appreciated. Also, it does not matter if you were sexually abused or not, please answer the questions. We are interested in knowing how many people were sexually abused and also how many were not.

This project is part of Rachelle Hester's requirements for her graduate program in school psychology (with an emphasis on deafness) at Utah State University. Rachelle knows American Sign Language and is a certified interpreter. She plans to work with deaf children in the schools or to become a counselor for the deaf.

If you wish to join this study, please answer the questions on the 7-page survey, fill out the postcard and return them. This will be the only thing asked of you. The questions are about any experiences you may have had with sexual abuse as a child. The questions will take about 20 minutes to finish. If you do not wish to join this study, do not answer any of the questions. Joining this study is voluntary.

No one will know how you answered the questions. There is no way for us to match your name with your answers. Even the envelope with your returned answers will be destroyed by someone who will never see the survey you filled out. It will not be possible for us to know who answered the questions by reading the postmark. We hope this helps you feel comfortable in being honest about your experience.

Answering the questions may or may not be helpful to you, but your answers will help us to learn more about the sexual abuse of deaf children. Also, we will learn how sexual abuse of deaf children compares with the sexual abuse of hearing children. Information gained from this study may be used to help stop child sexual abuse. We can also use this information to help deaf children in Utah. If you would like the results of this study, please mark "yes" on the postcard and we will send the results when the study is finished.

Some of these questions may be uncomfortable for you to answer. If you feel you need help because of the questions, you can call one of us at the numbers listed below. We can give you information about how to get help. If you want to contact a therapist, they are listed in the yellow pages of the phone book under the titles "psychologists" and "counselors." Also, on the next page is a list of therapists for the deaf in Utah.

If you have any questions about this study or if you need help answering the questions, please call Rachelle Hester at the number listed below. The Institutional Review Board (IRB) for the protection of human subjects at Utah State University has reviewed and approved this research project.

Thank you for your help. We cannot do this without you!

Sincerely,

Rachelle Hester
School Psychologist in Training
(435) 245-3616 TTY/Voice

Gretchen Gimpel, Ph.D.
Associate Professor
(435) 797-0721 Voice Only
<table>
<thead>
<tr>
<th>Counselors for the Deaf in Utah</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kristylynne Brady, L.C.S.W.</strong></td>
</tr>
<tr>
<td>The Counseling Center</td>
</tr>
<tr>
<td>111 E. 5600 S. Independence Hall, #210</td>
</tr>
<tr>
<td>Murray, Utah 84107</td>
</tr>
<tr>
<td>(801) 265-9322 (V/TTY)</td>
</tr>
<tr>
<td><a href="mailto:deafcounseling@home.com">deafcounseling@home.com</a></td>
</tr>
<tr>
<td><strong>Ella Loveland, L.C.S.W.</strong></td>
</tr>
<tr>
<td>Freedom Program Therapist</td>
</tr>
<tr>
<td>Utah Alcoholism Foundation</td>
</tr>
<tr>
<td>1006 East 1st South, Salt Lake City, Utah 84102</td>
</tr>
<tr>
<td>(801) 466-8385 (801) 468-0299 (Fax)</td>
</tr>
<tr>
<td>And:</td>
</tr>
<tr>
<td>Division of Child and Family Services</td>
</tr>
<tr>
<td>1385 South State Street, Third Floor,</td>
</tr>
<tr>
<td>Salt Lake City, Utah 84115</td>
</tr>
<tr>
<td>(801)-468-0259 (801) 468-0235 (Fax)</td>
</tr>
<tr>
<td><a href="mailto:elovela.wscfam@state.ut.us">elovela.wscfam@state.ut.us</a></td>
</tr>
<tr>
<td><strong>Marilyn Call, C.S.W.</strong></td>
</tr>
<tr>
<td>Utah Center of the Deaf and Hard of Hearing</td>
</tr>
<tr>
<td>5709 S. 1500 W., Taylorsville, UT 84123</td>
</tr>
<tr>
<td>(801) 263-4888 (V/TTY)</td>
</tr>
<tr>
<td>1-800-860-4860 (Toll Free)</td>
</tr>
<tr>
<td>(801) 263-4865 (Fax)</td>
</tr>
<tr>
<td><a href="mailto:mcall@usor.state.ut.us">mcall@usor.state.ut.us</a></td>
</tr>
<tr>
<td><a href="http://www.usor.state.ut.us/dsdhh/dsdhh.html">http://www.usor.state.ut.us/dsdhh/dsdhh.html</a></td>
</tr>
<tr>
<td><strong>Joene Nicolaisen, L.P.C. -Intern</strong></td>
</tr>
<tr>
<td>Master of Counseling student</td>
</tr>
<tr>
<td>University of Phoenix Counseling Center</td>
</tr>
<tr>
<td>5251 Green St., Murray, Ut 84123</td>
</tr>
<tr>
<td>(801) 268-5428 (V/TTY)</td>
</tr>
<tr>
<td>And:</td>
</tr>
<tr>
<td>Sego Lily Center for the Abused Deaf</td>
</tr>
<tr>
<td>Executive Director</td>
</tr>
<tr>
<td>P.O. Box 71279, SLC, Ut 84171-0279</td>
</tr>
<tr>
<td><a href="http://www.SLCAD.org/fnicola@hs.state.ut.us">www.SLCAD.org/fnicola@hs.state.ut.us</a></td>
</tr>
<tr>
<td><strong>Stacey Francone, L.C.S.W.</strong></td>
</tr>
<tr>
<td>Valley Mental Health- Adult Day Treatment</td>
</tr>
<tr>
<td>145 E. 1300 S. #601, Salt Lake City, UT</td>
</tr>
<tr>
<td>(801) 536-6500 (V)</td>
</tr>
<tr>
<td>(801) 536-6520 (Fax)</td>
</tr>
<tr>
<td><a href="mailto:StaceyF@vmh.net">StaceyF@vmh.net</a></td>
</tr>
<tr>
<td><strong>Dr. Emily Rosten, M.S.W., Ph.D.</strong></td>
</tr>
<tr>
<td>130 South 1200 East</td>
</tr>
<tr>
<td>Salt Lake City, Utah 84102</td>
</tr>
<tr>
<td>801-532-3838 (Voice)</td>
</tr>
<tr>
<td>801-532-3939 (TTY)</td>
</tr>
<tr>
<td>801-532-7171 (Fax)</td>
</tr>
<tr>
<td><a href="mailto:emily@juno.com">emily@juno.com</a></td>
</tr>
<tr>
<td><a href="http://www.emilyrosten.com">http://www.emilyrosten.com</a></td>
</tr>
<tr>
<td><strong>Sheryl Ginsberg, L.C.S.W.</strong></td>
</tr>
<tr>
<td>West Valley Mental Health</td>
</tr>
<tr>
<td>3575 South Market St. (2790 West) #3, West Valley City, Utah 84119</td>
</tr>
<tr>
<td>(801) 967-4405 (V/TTY)</td>
</tr>
<tr>
<td>(801) 967-4400 (Fax)</td>
</tr>
<tr>
<td><a href="mailto:sherylg@vmh.com">sherylg@vmh.com</a></td>
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<tr>
<td><strong>Annette Stewart, C.S.W.</strong></td>
</tr>
<tr>
<td>Utah Center of the Deaf and Hard of Hearing</td>
</tr>
<tr>
<td>5709 S. 1500 W., Taylorsville, UT 84123</td>
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<tr>
<td>(801) 263-4892 (V)</td>
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<td>(801) 263-4891 (TTY)</td>
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<td>(801) 263-4865 (Fax)</td>
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<td>1-800-860-4860</td>
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<tr>
<td><a href="mailto:astewart@usor.state.ut.us">astewart@usor.state.ut.us</a></td>
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<td><strong>Lynnette Johnson, C.S.W.</strong></td>
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<td>The Counseling Center</td>
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<tr>
<td>111 E. 5600 S., Independence Hall, #210,</td>
</tr>
<tr>
<td>Murray, Utah 84107</td>
</tr>
<tr>
<td>(801) 265-9322 (V/TTY)</td>
</tr>
<tr>
<td><a href="mailto:deafcounseling@home.com">deafcounseling@home.com</a></td>
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</tbody>
</table>
Appendix D

Follow-Up Post Card
July 5, 2001

Last week a survey was mailed to you. It asked about your experience with sexual abuse. If you are deaf your name was found in the TTY phone book. If you are hearing your name was randomly drawn from the phone book.

If you have already completed and sent back the survey to us, we thank you! If not, please do so today. The survey was sent to a small but representative sample of people who live in Utah. Part of the sample was hearing and the other part deaf. This means your response is extremely important. To help make our research on this important topic as accurate as possible, we need you to fill out your survey and send it back to us.

If by some chance you did not receive the survey, or you cannot find it, please call one of us right now and we will get another one in the mail to you today.

Sincerely,

Rachelle Hester
School Psychologist in Training
(435) 245-3616 TTY/Voice

Gretchen Gimpel, Ph.D.
Associate Professor
(435) 797-0721 Voice only
Appendix E

Follow-Up Letter
July 18, 2001

Dear Participant,

About four weeks ago, we sent you a survey that asked you about your experience with sexual abuse. As of today we have not yet received your completed survey.

We are doing this research because we believe that the sexual abuse is a serious and important problem. We do not know how many deaf people are sexually abused as children in Utah and how this compares with hearing children.

We are writing to you again because each survey is important. **It does not matter if you are deaf or hearing, your answers will be greatly appreciated. Also, it does not matter if you were sexually abused or not, please answer the questions.** If you are deaf your name was found in the TTY phone book. If you are hearing your name was randomly chosen from the Cache Valley phone book. In order for the results of this study to represent the people in Utah, it is important that each person return their survey. While it is important for us to receive as many surveys as possible, you do not have to participate in this project.

We have sent you another survey in case you cannot find or survey or in case you did not receive the first one. If you have any questions about this survey or need help answering the questions please call Rachelle Hester.

Your help is greatly appreciated.

Sincerely,

Rachelle Hester  
School Psychologist in Training  
(435)245-3616 TTY/Voice

Gretchen Gimpel, Ph.D.  
Associate Professor  
(435)797-0721 Voice only