

**A Comparison of
Families Experiencing Chronic Physical Abuse,
Sexual Abuse and Neglect Problems**

BY

ALEXANDRA S.C. WRIGHT

**A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of**

MASTER OF SOCIAL WORK

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ABSTRACT

Families with chronic child maltreatment problems expose their children to repeated incidents of abuse or neglect. Intervention with these families is often ineffective in stopping a reoccurrence of an abuse/neglect incident and the overall cost to the system is high. This paper compares specific characteristics of families with chronic physical abuse, chronic sexual abuse or chronic neglect problems. It is hypothesized that there are identifiable differences and similarities between these three types of chronic child maltreatment. By identifying these differences and similarities, intervention could be based on the families' particular needs.

In 1994, a systematic sampling method was used to select cases of chronic child abuse or neglect from 116 closed family files from the Winnipeg Child and Family Services. This resulted in the analysis of 1293 abuse/neglect incidents of families with chronic problems. One file contained 40 incidents of abuse/neglect. Differences and similarities are identified through the use of descriptive and inferential statistics. Frequency counts and t tests identified variables which were significantly different for the maltreatment types. Factor analysis was utilized to examine underlying dimensions of families with chronic physical, sexual and neglect problems.

Major findings showed that the majority of the current severity levels of a maltreatment incident scored high in severity and close to 85% of caregivers in families with chronic maltreatment problems reported a substance abuse problem. Biological caregiver families and single female caregiver families recorded only neglect incidents. Children from common-law, step-parent, blended and families with extended relatives as caregivers experienced physical abuse, sexual abuse and neglect. Few of these cases involved adolescent caregivers and only a small portion of these families recorded serious mental health problems. Recommendations include the coordination of services to provide families with chronic maltreatment problems with substance abuse treatment.

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Introduction

For purposes of this research, families with chronic maltreatment problems are defined as those who experience high rates of recidivism of abuse or neglect. Children in these families are exposed to harmful incidents of maltreatment over time. The child welfare system has been unsuccessful in dealing with these cases. Interventions aimed at improving parental functioning often appear ineffective in stopping the maltreating behaviour. The cost of providing services to these families is overwhelming: In the fiscal year of 1994 to 1995, it is estimated that the provincial government spent 94 million dollars in the provision of protection services to Manitoba families (Province of Manitoba, 1994/95). In order to provide intervention that meets the needs of families with chronic abuse and neglect problems, it is necessary to compare family characteristics between the maltreatment types. The differences and similarities of the maltreatment types could then be integrated into interventions that are provided to these families.

Purpose and Hypotheses

Purpose

This thesis intends to compare specific characteristics of families with chronic physical abuse problems, to those with chronic sexual abuse problems or chronic neglect problems. The research proposes to discover whether certain individual, or groupings of characteristics, are shared between families with different abuse or neglect problems, or whether the selected characteristics are unique to each maltreatment type. This research endeavours to contribute information to the child welfare field and to encourage the implementation of intervention plans which recognize and integrate the differences between these families, or the similarities that they share. The area of emotional abuse and psychological maltreatment is purposely excluded from this thesis for several reasons. On a practical level, the vagueness and variety of definitions and indicators

of emotional abuse result in inconsistency in practice and create a difficult task of constituting abstract and operational definitions for research purposes. Secondly, the collection of data on emotional abuse is difficult simply because, with the exception of the rarest of circumstances, the participating child protection agencies do not open cases based solely on incidents of emotional abuse. Thirdly, the instruments used to collect data on the variables were not created with the purpose of measuring emotional abuse. It is important to stress however, that further research in the area of emotional abuse is critical to child welfare and related practice.

Intervention methods provided to parents who maltreat their children should be based on sound knowledge of the characteristics of these families (Geismar, 1978; Green, 1984; Land, 1986). A key part in the process of providing services to families experiencing chronic physical abuse, chronic sexual abuse or chronic neglect problems, is the identification of specific factors which initiate and maintain the maltreating behaviour (Howing, Wodarski, Kurtz & Gaudin, 1989). The goals of intervention with maltreating families generally focus on the termination of the abusive or neglectful behaviour. Methods of intervention should reflect the different characteristics influencing, or associated with the abusive or neglectful behaviour. It is important to study child physical abuse, child sexual abuse and child neglect individually in order to intervene in a manner that is based on the nature of the abusive or neglectful behaviour:

In order to make further progress in the area of child maltreatment, we must study the discrete types of maltreatment separately, i.e., physical abuse, neglect, we should determine the characteristics of the maltreating parents and their spouses, their child victims, and the nature of their interaction within the family....More prospective, long-term longitudinal studies of families involved in maltreatment can be expected to identify the major

factors operating within the parent, child, and environment which initiate and perpetuate the various types of maltreatment. (Green, 1984, p. 675).

Many intervention methods are not evaluated (Conaway & Hansen, 1989; Heap, 1991; National Research Council, 1993).

Little is known about the quality of existing interventions in treating different forms of child maltreatment. No comprehensive inventory of treatment interventions currently exists, and we lack basic descriptive and evaluative information regarding key factors that influence the delivery and results of treatment for victims and offenders at different developmental stages and in different environmental contexts. A coherent base of research information on the nature and the effectiveness of treatment is not available at this time to guide the decisions of case workers, probation officers, health professionals, family counselors, and judges. (National Research Council, 1993: p. 23)

The effects of different treatment methods on families with child abuse and neglect problems have shown varied results (Tracy, Green & Gremseth, 1993). Not all interventions result in improved parental functioning. In a research project assessing adolescent children and one of their parents' functioning before, during and after intervention, children and their families were functioning at a lower level than non clinical samples. The authors found child and family factors to be more strongly associated with family functioning at follow-up than were treatment factors (Wells & Whittington, 1993). Another study reported improvement in family functioning with most families at risk of child maltreatment over time, although specific family types such as the multi-risk family, experienced little or no improvement in family functioning with treatment (Ayoub, Willett & Robinson, 1992).

Wald, Carlsmith and Leiderman, (1988) evaluated foster care and home placements to assess the well-being of children. The study concluded there were few differences between the two (Wald et al., 1988). This raises the question whether the current use of foster placement is an effective method of intervention.

It has not been determined whether professionals provide the best services to families with abuse or neglect problems. In one study, home health visitors for high-risk families were found to be effective in preventing child maltreatment, and lay group counseling seemed more readily accepted by clients when compared to professional interventions (Dubowitz, 1989).

Some research suggests that intensive treatment methods for different types of offenders will provide better results from interventions. Land (1986) found that clients who received intense weekly treatment for a longer duration were assessed as having a higher degree of rehabilitation. This finding raises the concern that treatment intervention is often focused on the resources available to the service provider as opposed to the needs of the client: "Many child abuse programs have been forced by financial cutbacks to adapt to a minimum treatment approach for clients regardless of the severity or chronicity of their problems" (Land, 1986, p. 33).

With greater knowledge in the area of differences and similarities in characteristics in families with chronic neglect problems, chronic physical abuse problems and chronic sexual abuse problems, service providers could formulate and implement intervention based on identified variables, and their associations with the maltreating behaviour. This would avoid the use of generic intervention techniques which could have little or no influence in the factors associated with the families' behaviours, and could possibly have destructive results for the family: "These data imply that abuse and neglect represent fundamentally different forms of child maltreatment and that combining maltreating groups, as has frequently been

done, may actually obscure the important differences” (Bousha & Twentyman, 1984, p.113).

It is hoped that the identification of variables either shared between or specific to, families with chronic physical abuse problems, chronic sexual abuse problems and chronic neglect problems, will assist service providers in providing intervention based on the families' specific characteristics and different needs. The current intervention methods are costly and frequently don't protect children in these families from further abuse or neglect.

Hypotheses

The two main hypotheses of this thesis contain sub-components. The first hypothesis has three sub-components and the second hypothesis has four sub-components.

I. There are identifiable variable patterns specific to chronically physically abusive, chronically sexually abusive and chronically neglectful families.

(i) There are identifiable variable patterns which are specific to chronically physically abusive families.

ii) There are identifiable variable patterns which are specific to chronically sexually abusive families.

iii) There are identifiable variable patterns which are specific to chronically neglectful families.

II. There are identifiable variable patterns shared between, chronically physically abusive, chronically sexually abusive and chronically neglectful families.

(i) There are identifiable variable patterns which are shared between chronically physically abusive, chronically sexually abusive and chronically neglectful families.

ii) There are identifiable variable patterns which are shared between chronically physically abusive and chronically sexually abusive families.

iii) There are identifiable variable patterns which are shared between chronically physically abusive and chronically neglectful families.

iv) There are identifiable variable patterns which are shared between chronically sexually abusive and chronically neglectful families.

Literature Review

Introduction

It is useful to examine previous research in order to summarize and analyze characteristics of abusive and neglectful families that have been identified. The purpose of the summary is to provide a comparison of prior findings with the results of this research. This literature review examines existing theories and previous studies which attempt to explain the causes of child abuse and neglect. Theoretical frameworks conceptualize the origins of child abuse and neglect as symptoms of personality disorders, problematic interactions and environmental stresses. These different frameworks define the existence of the problem, establish goals and methods of intervention, and are the basis on which success of an intervention is evaluated.

The following literature review summarizes certain studies which compare (a) specific characteristics or associations between characteristics of types of abuse and neglect, or (b) characteristics associated with general child maltreatment. These theories are summarized, compared and contrasted, with strengths and weaknesses briefly discussed.

This literature review is divided into three main perspectives that explain the causes of neglectful and abusive behaviour towards children: 1) individual personality flaw, 2) sociological, and 3) interactional. The individual personality flaw perspective considers the maltreating behaviour as a result of some kind of personal deficit or trauma, whether organic or genetic in nature that is rooted in an individual's character (i.e. head injuries, substance abuse, lesions on the brain). The sociological perspective believes that influences beyond the individual's control create an atmosphere which encourage the abuse and neglect of children. The interactional framework stresses the importance of interactions between the person who offends and his/her family and surroundings. It incorporates many aspects of

both the sociological and psychological perspectives. Although the first two views could be considered from a broad interactional perspective, for the purposes of this research, the three perspectives are distinguished based on their beliefs of what causes and is responsible for the abusive or neglectful behaviour. The source of the problem is neither individually nor environmentally based in the interactional view: It is a combination of both, and stresses the importance of interactions between and the individual and his/her environment.

Individual Personality Flaw

Introduction

The individual personality flaw theory asserts that the causal factors of child abuse and neglect originate from within the individual. This theory is based on the medical model (Finkelhor, 1979; Tzeng, Jackson & Karlson, 1991). The individual personality flaw theory combines aspects from psychiatry, psychoanalysis and theories of ego development. Mental illness, psychoses, the role of the unconscious in influencing human behaviour, and trauma are examples of phenomena which are believed to cause the maltreating behaviour (James & Boake, 1988; McCarthy, 1990; Sweet & Resick, 1979; Tzeng, et al., 1991; Tuohy, 1987).

Abusive parents are thought to have a characteristic or personality trait which causes them to abuse their children. The main focus of the individual personality flaw theory of child abuse and neglect is on the parent's inner self and psychiatric problems as opposed to the familial and environmental context in which the abuse or neglect takes place. Assessment of these families is directed to the personality traits of parents:

This supported the assessment of personality attributes indicative of a characterological fault that might cause parents to lose control, isolate themselves from others, distort their children's problems or abilities, or

harbor anger and resentment for their own childhood experiences. (Wolfe, 1985, p. 463)

Emotional/Psychological Disorder

Much research has studied caregivers' personalities with the goal of identifying specific characteristics of people who abuse or neglect their children. Wolfe (1985) reviewed studies comparing child-abusive and nonabusive parents on psychological and behavioral dimensions. Few of the studies found significant differences between abusers and nonabusers on traditional psychological dimensions, but abusers were more likely to report stress-related symptoms; depression, health problems. Taylor, Norman, Murphy, Jellinek, Quinn, Poitrat and Goshko (1991) examined parents of seriously abused or neglected children for intellectual and emotional impairment. Over half of the records showed that a parent had been diagnosed as having an emotional disorder, and a majority showed significant impairment. Dinwiddie and Bucholz (1993) also found that antisocial personality disorders and major depression were more likely to occur with parents who physically abuse their children. This study also identified substance abuse problems as more likely to exist with this group.

Mothers of abused and neglected children have frequently been studied and found to have personality deficits. These mothers have been characterized as unable to show or feel empathy for their children and have "severely frustrated dependency needs", and often a history of emotional problems (Melnick & Hurley, 1969, p. 746).

Self-Esteem

As well as other personality problems, self-esteem is a characteristic associated with abusive/neglectful caregivers. Culp, Culp, Soulis and Letts (1989) compared physically abusive mothers, neglecting mothers, and matched controls on depression and self-esteem variables. Results showed that the physically abusive

mothers had significantly higher levels of depression and lower self-esteem than did the matched controls. The abusive and neglecting mothers had similar levels of depression and dissimilar levels of self-esteem. This research indicates that there are differences in the mothers' psychological health based on the type of maltreatment perpetrated by the mother.

Christensen, Brayden, Dietrich, McLaughlin, Sherrod and Altemeier (1994) compared test scores of pregnant women and reviewed protective services' records three years after the birth of the children. The study showed that neglectful mothers had lower scores on scales measuring overall self-esteem, moral self-worth, personal and social adequacy and perception of self-worth in family relationships than matched nonreported mothers. Neglectful mothers described their identity and behavior more negatively and had greater general maladjustment and neurotic symptoms. Physically abusive mothers had lower scores on self-worth in family relationships. Low self-esteem appears to be a risk factor for child neglect, but is not a strong predictor for physical abuse.

Wald et. al. (1988) also found that mothers of abused and neglected children placed in foster care reported lower levels of self-esteem. This same study reported that neglecting parents were more likely to abuse substances than abusive parents: "The neglecting parents tended to be poorer, less educated, and more "pathological" in terms of drug or alcohol use or mental illness." (Wald et. al., 1988, p. 51)

Psychopathology

Psychopathology has also been identified as a characteristic of abusive or neglectful caregivers. It is believed that a caregiver with psychopathological problems maltreats a child due to a mental or emotional disease (Thorne-Finch, 1992). The caregiver is "sick" and the abusive or neglectful behaviour is considered deviant. Psychopathology could result in a caregiver experiencing problematic

perceptions and understanding of a child's behaviour. Estroff, Herrera, Gaines, Shaffer, Gould and Green (1984) compared mothers of abused and neglected children and demographically matched mothers of children referred to a general child psychiatry clinic. The study found maternal psychopathology to be greater for the maltreatment group, and neglecting mothers showed IQs in the Dull Normal Range. The perceived child behavior was strongly associated with self-reported maternal psychopathology.

Apathy and Loneliness

Neglecting parents have been characterized as inadequate, and failing in their roles to assume basic responsibilities (Herrenkohl, Herrenkohl, & Egolf, 1983). Polansky, Gaudin and Kilpatrick, (1992) found that neglectful mothers were lacking in relatedness, impulse control, confidence and verbal accessibility (Polansky, Gaudin and Kilpatrick, 1992). "The Neglecting parent, therefore, may show a more chronic pattern of interpersonal conflict, irresponsibility, and apathy than the abusive parent" (Wolfe, 1985).

Feelings of loneliness have been identified as a cause of child abuse and neglect (Marshall, 1989; Mijuskovic, 1990; Polansky, Ammons and Gaudin, 1985). Maltreating parents are believed to be lonely people, and this feeling of loneliness causes them to hurt their children:

"Their intense and prolonged feelings of loneliness are the direct source of all their anxiety and hostility and often they abuse and neglect their own children as a result." (Mijuskovic, 1990, p.2)

Immaturity

Immaturity is also a characteristic which has been found to differentiate between physically abusive mothers and non-abusive controls (Hyman, 1977; James & Boake, 1988). This characteristic is usually identified by the age of the caregiver. Matthews (1980) summarized the general social view of abusive parents

as being young, lacking knowledge or experience of parenting, often exposed to chronic or acute stresses, having inappropriate expectations of children and relying on violence and fear as teaching tools. Anderson, Ambrosino, Valentine and Lauderdale (1983) studied child abuse and neglect fatalities. Among other variables identified, the research found that one indicator of families at risk for fatalities was a family with young parents: "Young parenthood has been identified as a risk factor for child maltreatment due to unrealistic expectations of the child, lack of child care skills, unfulfilled dependency, marital instability, low frustration tolerance, and isolation" (Anderson et al., 1983, p. 87). This finding was supported in a later study by Schloesser, Pierpont and Poertner (1992) which examined child abuse and neglect registry related fatalities. The authors found that a very young age of parents at the first pregnancy increased the risk of a child for maltreatment. A young age of caregiver was also found to be characteristic of maltreating families in other studies (Howze Browne, 1986; Wald et al., 1988; Zuravin & DiBlasio, 1992). Another study differentiated between neglectful and abusive families and found that neglectful mothers were more likely to be young when compared with abusive parents (Watters, White, Parry, Caplan & Bates, 1986).

Offender Typologies

Typologies of offenders attempt to differentiate among abusers and non abusers by identifying specific personality characteristics (Francis, Hughes & Hitz, 1992; Groth, 1982; James & Boake, 1988; Walters, 1975). The use of measures to identify people who abuse or neglect children reflects the belief in individual personality disorders as the cause of the maltreating behaviour (Furlong & Leton, 1977; James & Boake, 1988; Milner, 1991; Paulson, Afifi, Thomason & Chaleff, 1974; Sloan & Meier, 1983). Patterns of physically abusive parents have been identified based on cluster analysis: "Shy, withdrawn apprehensive, sober and restrained..."normal"...Compulsive, bold dominant and assertive,

manipulative...passive and submissive...isolated, withdrawn, suspicious, tense and apprehensive..." (Francis et al., 1992, p. 673).

Aggression

In several studies, aggression has been identified as a characteristic that distinguishes maltreating caregivers from nonmaltreating caregivers. Dinwiddie's and Bucholz' study (1993), showed that among other characteristics, child abusers were more likely to abuse their spouse and fight in adulthood. The maltreating men had poor control of aggression and antisocial impulses, and had more disrupted family relationships factors. Aggression has also been identified as characteristic of abusive parents in further studies. Rutledge (1991), compared sexual abuse characteristics between biological father and step-father abuse. The study concluded that step-father abusers and bio-father abusers are not a homogeneous group. Findings showed that biological fathers appeared to abuse at the most serious levels and maintained the abusive relationship through physical assaults and the threat of physical assaults. Severity of the maltreatment incident has also been associated with recidivism. Howze Browne (1986) examined the role of stress in child abuse and neglect and found that the seriousness of the initial incident of child maltreatment increased the probability of serious repeated acts of child maltreatment. In a sample of physical abuse cases, Johnson and L'Esperance (1984), identified a predictor variable, seriousness of a case, as the determining factor that there would be future abusive incidents of physical abuse.

Sloan and Meier (1983), classified abusive parents into six categories based on their psychopathological profiles. The categories are; (1) Hostile-Aggressive, (2) Rigid-Compulsive, (3) Passive-Dependent, (4) Identity/Role Crisis, (5) Displaced Abuse, and (6) Severe Mental Illness. In considering prognosis for change, the least favorable prognoses were with parents who showed hostile-aggressive, passive-dependent or severely mentally ill characteristics. Violence and aggression

were also found to be predictive of poor likelihood of change in family functioning over time in a study by Ayoub, Willett and Robinson (1992). The authors identified five family types that represent a continuum of family difficulty. One of the types, the multi-risk family, had multiple, complex, individual and family crisis of long-term duration; history of violence, disturbed parent-child relationships, low self-esteem, depression, substance abuse, and spouse abuse.

Watters et al. (1986) found that the families of abused and neglected children showed the most severe pathology including a history of spousal violence, marital instability and family discord. Significant differences were found between abusive and neglectful families. Abused children had more visible injuries, and more serious injuries, but were not admitted to hospital as often as neglected children. Neglected children suffered burns twice as often as the other groups and their parents' explanations of the injuries did not fit the nature of the injury. A correlation between age and severity was reported. Age of the child was identified as a characteristic that increases a child's risk of harm by abuse or neglect. Findings revealed that fatalities from neglect appear to occur at approximately the same frequency as those from physical abuse. Abused children were found to be older than neglected children (5.2 and 2.1 years respectively) (Watters et al., 1986). Christoffel, Zieserl and Chiaramonte (1985) found that a child under the age of one was at greater risk of fatality. This finding was supported in a study by Schloesser et al. (1992) who found that 85% of the child fatalities were children under the age of two, and more than sixty-five percent were under the age of one year. A study comparing fatal child neglect and abuse cases, found that children younger than three years, are at greatest risk for both physical abuse and neglect fatality (Margolin, 1990). Margolin identifies "child's age" as a primary risk factor for fatalities when compared to children sustaining nonfatal neglect or nonfatal physical abuse. A correlation between age and severity of injury was also discovered.

Winefield and Bradley (1992) showed that substantiation of reported child abuse or neglect was based on the severity level of the incident and the age of the alleged victim. The probability of substantiation increased with the age of the victim and with cases rated moderate or high in severity compared to those rated as minor.

Substance Abuse

Studies have also identified substance abuse as a possible characteristic of parents who abuse or neglect their children. The study of Watters et al. (1986) found that a distinguishing characteristic between neglect and abuse was that neglect had a higher incidence of substance abuse problems, compared with abuse. Bath and Haapala (1993) found that neglectful families were more likely to have substance abuse problems. A higher incidence of alcohol abuse for neglectful caregivers was also found in a study examining American Indian children (Lujan, DeBruyn, May and Bird, 1989). Alcohol abuse was found in 85% of the neglect cases and in 63% of the abuse cases. Wald et al. (1988) found that the mothers of abused and neglected children in foster care had higher percentages of substance abuse than those whose children were in the home. A higher incidence of substance abuse in maltreating parents than in the general population was also reported in later studies (Ayoub et al. 1992; Dinwiddie & Bucholz, 1993). Famularo, Kinscherff and Fenton (1992), reviewed records of state custody of children in child abuse and neglect cases from a juvenile court. Sixty-seven percent of these cases involved parents who were substance abusers. The study showed that physical abuse and alcohol abuse were associated, and sexual abuse and cocaine abuse were associated. The authors state that parental substance abuse contributes to severe family dysfunction and raises the risk of child abuse and neglect. One of the effects of alcohol consumption is purported to be an increase in aggressive behaviour. Similarly, cocaine use is supposed to cause an increase in sexual interest.

Sociobiology

The sociobiological view of child abuse and neglect reflects a belief in the individual personality flaw perspective. It is thought that survival motivations explain human behaviour and parenting: "... including (1) an inborn drive to pass on genetic makeup, and (2) the tendency for individuals to favor those closest to them genetically" (Tzeng et al., 1991, p. 25). Human beings evolve in order to survive environmental or organism changes: they adapt to their environment. This process can result in positive adjustment or maladaptive behaviour. The adaptive behaviour then becomes genetically coded, "to ensure the longevity of their specific gene pool" (Thorne-Finch, 1992, p. 47). Sociobiology believes that particularly vulnerable children are abused due to a specific characteristic: handicaps, non-biological relationship with caregiver, age, or unwanted gender. This can be viewed as an attempt to terminate the continuation of those gene pools. Culture plays an important role in the process of adaptation, and influences methods communities use, to cope with change.

This perspective is helpful in explaining the devastating cycle of abuse or neglect of people born with fetal alcohol syndrome who in turn have children, and are unable to parent appropriately. This creates a vicious cycle of children growing up with their potential "pre-empted before birth", and being unable to care for their own children appropriately (Government of Canada, 1992). "It is important to stress alcohol's impact on the fetal brain, ranging from subtle, but nevertheless significant, deficits and abnormalities, to severe learning disabilities and emotional/behavioural disorders" (Government of Canada, 1992, p. 6). The use of, and addiction to alcohol in this society create devastating problems for future generations. When a fetus is exposed to toxic substances, mild to severe damage can result in the child that is born. These effects often put children at risk for neonatal mortality and childhood morbidity (Government of Canada, 1992). Another risk these children may be exposed to is child maltreatment. The use of

substances during pregnancy, combined with poor nutrition have long lasting effects: "It is important to remember that FAE/S impacts are serious and life-long in their consequences for affected individuals and their caregivers" (Government of Canada, 1992, p.7).

Sexual Offenders

Many studies from the individual personality flaw perspective provide explanations of the origins of sexual abuse. Motivation in sexual abuse can be viewed as the unconscious acting out childhood experiences:

"The crime is an aggressive and sexualized defense mechanism against extreme rejection or fusion wishes or anxieties of or with the mother or father. The victim is the realized fantasy partner, whereas the fantasy partner is the suppressed gender-identity representative." (Wiederholt, 1992, p. 22)

Some researchers claim that sexual offenders have not had their basic needs met and consequently regress to an earlier developmental life stage during the abuse (Ammerman, 1990; Groth, 1978; Poole, 1988; Wiederholt, 1992). "Like everybody, the offender seeks proximity, self confidence and satisfaction of emotional needs in human interaction. He commits a sex crime when these needs are not fulfilled" (Wiederholt, 1992: p. 19). Groth believes that sexual offenders against children are either regressed or fixated. When stressed, offenders regress to earlier developmental stages and are attracted sexually to children (Poole, 1988; Groth, 1978). "...paraphilic behavior is a coping mechanism which once served a vital purpose and has since developed into an unspecific way of reacting to stress or disgrace of many kinds" (Pfafflin, 1992, p. 14). Fixated offenders are "stuck" developmentally, due to unresolved childhood trauma or conflict and are attracted mainly to children as opposed to adults. Stress is not associated with fixated sexual abuse, as this is a chronic state. The offender in the fixated state prefers to abuse

boys, whereas regressed offenders prefer to abuse girls (Poole, 1988; Tzeng et al., 1991).

Some authors believe that sexual offenders must have the intrapsychic state to offend against a child, the opportunity and an emotional release or payoff from the abusive incident (Finkelhor, 1984; Hall & Hirschman, 1992; Salter, Richardson & Martin, 1985; Zuskin, 1992). "In sum, child abuse occurs when the abusing parent (1) feels negative affect toward the child; (2) has either a world view that rationalizes the abuse or inadequate impulse controls; and (3) receives a payoff for the abuse" (Salter et al., 1985, p. 334).

Summary

The individual personality flaw perspective on the causes of child abuse and neglect has identified several characteristics which appear to differentiate between abuse and neglect types and maltreating and nonmaltreating families; psychopathology, emotional disorders, aggression, loneliness, immaturity of parent, substance abuse, regressed or fixated personalities. It is helpful in directing interventions to meet the needs of families: "These differences in the psychological health of mothers and the patterns of family functioning indicate that programs providing treatment for maltreating families will need to consider carefully the treatability of the various members of the maltreating family." (Culp et al., 1989, p. 250).

A sociobiological view of child abuse and neglect cannot account for the abuse of biological children, healthy children, nor for adopted children who are not abused. With regards to the issue of fetal alcohol syndrome, it seems that most of the women who abuse substances during pregnancy are experiencing other hardships as well: poverty and abusive intimate relationships (Government of Canada, 1992). Studies on parents who themselves were born with fetal alcohol syndrome are difficult to find, and it is unclear as to whether parents are maltreating

their children due to external stresses or internal problems caused by substance abuse or fetal alcohol syndrome. It is also difficult to locate statistics on the number of children with fetal alcohol syndrome who are maltreated, and the number of children who aren't. In addition, there is no information on whether parents with fetal alcohol syndrome differ in the maltreatment rate when compared with parents without fetal alcohol syndrome.

The individual personality flaw theory purports that the primary cause of child abuse and neglect are factors within the individual (Finkelhor, 1979; Spinetta & Rigler, 1972; Tzeng et al., 1991; Wright, 1976). Consequently, the individual, as opposed to the family, community or society is regarded as requiring change.

"The most important concern must be to correct the traumatized personality of the victim and the defective character of the perpetrator, not only because of humane concern for the individuals but for the future social and economic interests of society." (Blumberg, 1981, p. 348)

Although this theory provides information on the interpersonal characteristics of people who abuse or neglect, it is limited in its exclusion of other factors which could influence parental behaviour. It does not take into account the intense influence family, culture and society can have on a person's behaviour and more specifically, abusive behaviour. It does not explain why certain people with specific characteristics identified as abusive, do not abuse, and why others, who do not share the characteristics do abuse. The individual personality theory generally removes all choice and responsibility involved in the offenders' actions. Most offenders do not have personality disorders (Factor & Wolfe, 1990; Taylor et al., 1991). Many of the empirical studies which show specific personality traits of sexual offenders are limited in methodological areas (Okami & Goldberg, 1992). Another limitation of this theory is the potential to normalize abusive behaviour towards children, due to unconscious motivations or desires and a product of

uncontrolled id activity (Blumberg, 1981). As a result of these limitations, the broader applicability of this theory to most people who offend against children is lost.

"Authors who promote the psycho pathological model claim that social variables do not enter into the causal scheme of child abuse. This is, of course, a narrow viewpoint, and a major fault of the model is its failure to examine the possible social causes of psychological stress that may lead to violent interactions within families." (Browne, Davies & Stratton, 1988, p. 19)

Sociological

Introduction

The sociological theory of child abuse and neglect focuses on social and cultural factors as causes of child maltreatment. This model stresses that variables outside the individual are primarily responsible for child maltreatment. It is concerned with the forces external of a family which encourage child abuse and neglect: poverty, unemployment, educational levels, poor housing; culture (Ammerman, 1990; Browne et al., 1988; Callahan, 1993; Keefe, 1984; Webster-Stratton, 1985; Wolock & Horowitz, 1984; Zuravin, 1989). This theory responds to some of the limitations of the personality flaw theory, and stresses the powerful impact sociocultural influences have on behaviours, attitudes, and emotions: both prosocial and antisocial. These influences are outside of the control of parents or families, yet promote the use of violence with children, or create an environment of high stress levels to parents, to which caregivers respond with abusive or neglectful behaviour (Tzeng et al., 1991).

The basic premise of the sociological model of child abuse is that in a society in which violence is rampant and frequently encouraged as a strategy for settling human relations disputes; in which children are regarded as

property of their parents; and in which beliefs like "spare the rod and spoil the child" are promulgated, the fact that parent-child conflict eventuates in child abuse should not be surprising. In essence, the cultural soil is regarded as fertile when it comes to fostering the mistreatment of children. (Belsky & Vondra, 1989, p. 155)

Poverty

The sociological perspective believes a link exists between poverty and child maltreatment. This link is bound together by an imbalance between poor people and wealthy people's access to, and control of resources. This imbalance is also maintained through the existence of ideologies which stress competition and aggression. Sociological theory attempts to hold governments and communities accountable and responsible for the effects of a society in which children are maltreated: "...the low priority accorded to neglect may be understood in terms of the link between neglect and poverty, reflecting in essence the low priority accorded to the alleviation of poverty" (Wolock & Horowitz, p. 536: 1984).

A sociological view is evident in a socialist perspective of child abuse and neglect. It considers abusive parenting a result of a class struggle. Due to a lack of economic or political power, the oppressed class, the poor, take their frustrations and anger out on their children. Violence against children is the outcome of workers, who are oppressed and exploited by a capitalist structure which supports business interests at the expense of workers. The current political and economic systems encourage the subservience of the working class through such social control factors as unemployment, a reserve labour pool, low incomes, high competition and inter-societal conflicts for jobs. Society maintains a selfish, ruling elite within an entrenched inegalitarian social order whose ideology teaches selfishness, competition, violence, and "symbolic" social violence against poor families (Tzeng et al., 1991). These combined factors perpetuate the promotion of

injustice and inequality. Parents' frustration and anger aimed at the political, economic and social institutions becomes redirected onto their children. Children are unable to oppose the maltreating behaviour and become defenseless targets of oppression (Marx, 1963).

Many studies have identified poverty as a critical characteristic of families with abuse or neglect problems. Herrenkohl, Herrenkohl, Toedter and Yanushefski (1984) studied parent-child dyads in abusive and nonabusive families. Income was found to be a significant determinant of parental behavior. Caregivers were more child-centered and supportive at the upper income level, and more parent-centered and child rejecting at the lower income level. The study showed that maltreatment was found to be associated with more parental rejection and less child warmth. Webster-Stratton (1985) compared abusive and nonabusive families with conduct disordered children. Low family income and mother's report of having been abused as a child were found to be the most potent variables discriminating abusive from nonabusive families. Newberger, Hampton, Marx and White (1985) also found that a low socioeconomic status was associated with a higher risk of child maltreatment. Chamberland, Bouchard and Beaudry (1986) reported that the percentage of families living under the poverty level and the percentage of families in which the woman was the sole economic support were the two strongest predicting variables of risk of child maltreatment. Howze Browne (1986) found in a sample of abusive and neglecting families, that forty percent experienced financial difficulties. Watters et al. (1986) revealed that neglectful families had a higher rate of unemployed fathers than abusive families. The results also discovered that the group of abused and neglected children were more likely to have fathers who were in receipt of government assistance. Poverty seems to be characteristic of maltreating families, particularly neglect.

The socio-demographic profile is clearer: poverty is closely associated with maltreatment and more particularly with neglect. In fact, parents of neglected children are even worse off economically than the parents of abused children. Most cases of visible parental neglect involve the least advantaged in our society: young, poor, single mothers with young children. (Ethier, Palacio-Quintin & Jourdan-Ionescu, 1992, p.17)

Associated characteristics

Zuravin (1989), examined some data on the contextual correlates of child abuse and neglect. Transience proved to be a significant and independent indicator of neglect but not abuse. For both abuse and neglect, the strongest predictors are the percent of families with income less than two hundred percent of the poverty line and vacant houses. Wald et al. (1988) found that the mothers of abused and neglected children, particularly those whose children were in foster care, were poor. Mothers whose children were in care also experienced higher rates of unemployment compared to mothers of abused or neglected children in the home and a control group. The rate of transience was also higher for the mothers of the foster home children (Wald et al., 1988). A link between placement of a child and parental socioeconomic status was also supported by Lindsey (1991). In an attempt to differentiate between reasons for placement versus nonplacement, the best predicting variable of a child's removal from home was found to be the parent's income source. Parents with insufficient income were more likely to have their children placed in care than those with adequate income (Lindsey, 1991). This has serious implications for intervention methods:

“In the absence of adequate income assistance for mothers who have temporarily had their children removed, the child welfare system may be insuring the adequacy of care for children removed from their natural home at the expense of the fragile income security of the biological mother. Thus,

the system may be restricting the prospect of future family restoration.”
(Lindsey, 1991, p. 279)

Education

Studies also identify an association between lower educational achievements and an increase in risk of child abuse or neglect. Watters et al. (1986) found that parents of neglectful families had less education than those of abusive families. Newberger et al. (1985) used cluster analysis to identify variables of a high-risk family profile. High risk families were characterized by mothers who were less skilled and less educated. Wald et al. (1988) reported that mothers of abused/neglected children whose children were placed in foster care had a much higher percentage of incomplete high school requirements when compared with mothers whose children were not placed, and the control group. Schloesser et al. (1992) examined child abuse and neglect registry related fatalities. Among several variables, the authors identified lower educational achievement of victims' mothers as a factor that seemed to increase the risk of maltreatment to these children. Zuravin and DiBlasio (1992) also found that mother's years of education and number of children differentiated between child-neglecting adolescent mothers and nonmaltreating adolescent mothers. These variables significantly increased the odds of neglect independent of each other. Each additional year of education decreased the odds of neglect by about 45% and each additional child increased the odds of neglect by 13%.

Adolescent Caregivers

Adolescent mothers have been identified as a variable which increases risk for child maltreatment. As opposed to the personality flaw perspective in which immaturity was the identified character trait of these mothers, a sociological perspective postulates that these young caregivers live in a high stress environment characterized by a general lack of resources and an over-representation of minority

groups. Bolton, Laner and Kane (1980) found that the role the age of parent plays in elevating the risk of child maltreatment is inconclusive and the higher incidence rate of child maltreatment by adolescent mothers may be explained by other variables. "In short, this work cannot completely answer the question: Which occurs first - the adolescent parenting, the child maltreatment, or participation in an environment characterized by the stressful demographic and dynamic variables studied?" (Bolton, 1980, p. 503). Bolton (1987) also studied a sample of fathers in adolescent mother-child relationships determined to be "high-risk" for child abuse. Fathers in these relationships bring elements to the environment and relationship which exacerbate the existing risk; occupational, educational, and financial problems. Personal characteristics of the fathers such as alcohol/substance abuse and criminal records also served to predict greater rates of ultimate relationship failure. The author found that the young age of the parent and instability of the relationship seemed to influence the potential risk of child abuse.

Culture

A cultural view of child abuse and neglect is a derivative of the sociological perspective. Cultural values of communities and societies are believed to strongly influence parenting behaviour and the value assigned to children within communities. An example of a cultural perspective on child abuse and neglect can be found in an Aboriginal understanding of the causes of child abuse and neglect. It stresses the devastation caused by colonization in transforming healthy, functional Aboriginal communities, to a people dependent on alcohol and abuse as coping methods (Clarkson, Morrissette & Regallet, 1992; "Natives Reveal," 1994). The Aboriginal communities have prided themselves on their special relationship with the natural and spiritual environment and the ensuing harmony experienced by the people.

...the Indigenous perspective draws its roots from an intimate awareness of the symbiotic relationship to the earth, based upon a delicate balance between its living parts. The original law passed down from their ancestors crystallizes the sacred responsibility of Indigenous people to be the caretaker of all that is on Mother Earth and therefore that each generation is responsible to ensure the survival for the seventh generation. This basic law that was the driving force behind the development of Indigenous culture became reflected in the institutions and systems of Indigenous people: the extended family systems, the clan system, decision-making through consensus, division of labour respecting the respective roles of the clans and based upon need, survival and family structure all contribute to sharing, social cohesion and respect for life. Respect for people and for the earth is linked together in order for people to survive and care for future generations. (Clarkson et al., 1992, p. vi)

Colonization dealt a blow to the Aboriginal people by rupturing that special relationship. The active and brutal assimilation of Aboriginal children to mainstream culture between the 1850s and the 1980s severed relationships between Aboriginal families, communities and culture, and removed thousands of Aboriginal children from reserves (Clarkson et al., 1992; "Natives Reveal," 1994). A result of the political, economical, and social injustices experienced by the Aboriginal community was a feeling of hopelessness and powerlessness and the chronic use of alcohol to deal with problems. Anger at the oppressors turned inward and was directed at the children of these communities. Many parents learned to be abusive from their experiences in foster homes, residential homes, or were encouraged to discipline children with physical force by the missionary churches. Patriarchy was encouraged by the colonial powers. These combined values and experiences created

a cycle of violence characterized by inappropriate caregiving and abusive behaviour (Clarkson et al., 1992).

"Indigenous people have been further dispossessed and marginalized from their land base,... The use of alcohol, the introduction of credit and welfare economy created further dependence on traders and outside interveners, with the result of breaking down family networks and shared responsibility of the community and the land." (Clarkson et al., 1992, pp. vi-vii)

In order for the abusive behaviour to change, a reconnection with mother nature must occur (Clarkson et al., 1992).

Korbin (1991) discusses the influence of culture in defining appropriate childrearing practices, and abusive or neglectful parenting. Children vulnerable to maltreatment are usually considered to be of no value to the community. In all cultures, some children are valued to a lesser extent than others. Risk factors identified include health status, deformed/handicapped children, excess or unwanted children, children born under "unusual, stigmatized or difficult circumstances", children at certain developmental stages, gender of the child, behaviours and personality characteristics and those with diminished social support (stepchildren, orphans, etc.). This view is supported by studies which show that families with disabled children have been identified as having a higher incidence of child maltreatment. Ammerman, Van Hasselt, Hersen, McGonigle and Lubetsky (1989) examined admissions of multihandicapped children to a psychiatric hospital. Thirty-nine percent of the sample experienced or had a history that warranted suspicion of past and/or current maltreatment. The study showed that less severely impaired patients were more likely to be maltreated than were the more severely impaired. Physical abuse was the most frequent type of maltreatment, followed by neglect and sexual abuse. Benedict, White, Wulff and Hall (1990) also found that the more severely disabled the child, the less at risk of maltreatment reports when

compared with a child functioning at more appropriate developmental levels (Benedict et al., 1990).

Matthews (1980) believes that abusive behavior is an adaptive function in the abuse of young children who make difficult or unusual demands on caregivers or when the child does not meet society's standard of normalcy. Autism is used as an example of child behaviour that is likely to provoke a violent response. The author discusses the environment of child abuse which includes inter-generational transmission of family violence based on the acceptance of the use of aggressive corporal punishment of children. It is hypothesized that there is more acceptance of violent discipline in higher socio-economic groups as they have more to "protect" and that maintaining the family's high status may involve developing "satisfactory codes of violence". In a study comparing abused and neglected children, eighty percent of the mothers of neglected children were born in Canada and forty percent of the mothers of abused children were born in Canada (Watters et al., 1986). This seems to suggest that culture may be influencing parenting styles. Margolin (1990) examined cases of fatal child physical abuse and fatal child neglect. Findings showed that fatalities from both abuse and neglect occur at approximately the same frequency. Gender was identified as a risk factor for fatal child neglect; two males for every one female died as a result neglect.

Different cultures often define abusive behaviour differently (Korbin, 1981). Yet a higher incidence of child maltreatment in different cultural groups may simply reflect the social status and socioeconomic status of that group, not the cultural or ethnic values and traditions (Korbin, 1981).

"There is not a unitary and cross-culturally valid standard for either optimal child-rearing or for child maltreatment. What is acceptable or unacceptable becomes inextricably linked to ecological constraints and to the cultural context in which behaviour occurs." (Korbin, 1981, p. 257)

Korbin (1981) states that abusive behaviour is often identified when it is inconsistent with the community's standard of child rearing. Theoretically, any kind of behaviour perpetrated on a child by a parent could be considered appropriate and acceptable, based on a community's standard of child rearing. It is crucial to pose the question "At what point is it appropriate to oppose community's standards?" Korbin addresses this issue by stating it is important to avoid an "extreme relativist view" that supports any kind of parenting behaviour as long as it is supported by a cultural group, however a standard definition of maltreatment is not provided (Korbin, 1981).

Feminist

A feminist viewpoint of the causes of child abuse and neglect also reflects a sociological perspective. It emphasizes the role played by a patriarchal society in the oppression of women and children. Patriarchy ensures the maintenance of men's political, economic and social control. Sex-role stereotyping and male power within society's political, economic and justice systems perpetuate sexist views of family violence. Women are blamed for the cause of violence. Professionals are active in maintaining a "blame the mother" for all family problems: "It manifests itself in an overemphasis by mental health professionals on the influence of mothers on a wide variety of problems and a de-emphasis on the contributions of fathers and husbands" (Valentine, 1986, p. 8). A feminist perspective of child abuse and neglect is partly a response to the mother-blaming models of the individual personality flaw perspective and other models which ignore sexism and power inequalities within society and the traditional family. Women are blamed for children's problems, and fathers and governments are not held accountable nor responsible for the provision of nurturing environments in which to raise children (Callaghan, 1993; Leach, 1994; Swift: 1991). The bridge between poverty and single female caregivers is reflective of a society that does not value equality

between men and women and does not value the environment of children developing in these families.

When considering sexual abuse, Finkelhor (1984) and Thorne-Finch (1992) believe that society's definition of masculinity promotes sexual abuse of children. Male sexuality is condoned as violent and threatening, the dominant position. Women and children are encouraged to be submissive and passive, objects for men's needs. Patriarchal family norms promote this view of inequality between men and women, boys and girls, based on gender (Tzeng et al., 1991).

The study by Kendall-Tackett and Simon (1992) examined different characteristics of males and females and their abuse experience. Findings showed similarities and differences of the abuse experience based on gender: Boys and girls were equally likely to be molested by natural fathers; girls were more likely to be molested by step-fathers; boys were more likely to be molested by friends of the family. The abuse lasted longer for the girls than the boys. Boys experienced significantly more anal intercourse and girls more fondling from the waist up.

Social Labeling

The social labeling view of child abuse and neglect also reflects aspects of the sociological perspective. It believes that maltreating behaviour is not a result of individual personality problems, rather a result of a labeling process by society. The labeling school of deviance focuses its attention on the process by which individuals or groups become designated as deviants. Abusive or neglectful behaviour is not a property inherent in certain forms of behaviour; it is a label assigned to certain behaviours by people who directly or indirectly see the behaviour. This view asserts it is impossible to objectively identify abusive behaviour because society has been influenced by a social process which labels people or behaviour as socially deviant. This process socially constructs maltreatment by the people who define abusive behaviour. Historically and

currently, many different definitions of abuse or neglect exist, and each determine different incidence rates and methods of intervention. This creates methodological difficulties and problems in comparing research results across studies (Gelles, 1975; Okami & Goldberg, 1992).

...a major problem in the area of child abuse is that of defining the phenomenon to be investigated. A corollary problem which arises is that it is impossible to compare the abundant data that have been gathered on abuse because of the idiosyncratic and varying definitions of child abuse. (Gelles, 1975, p. 366)

Society chooses specific "gatekeepers" to define abusive and neglectful behaviour and then ensures that those people whose behaviour fits the definition are labeled abusive. The definition used of abuse and the gatekeeper who uses it can clearly differentiate across professional groups and social classes:

Policemen, physicians, nurses, and social workers who have either read literature on child abuse or had experience with child abuse cases, build up a mental inventory of characteristics of people and situations associated with child abuse. They "know" that abusers are typically poor and uneducated. Abused children are typically under three years of age. Mothers are more often abusers than fathers. Thus, when they are presented with a case which is suspected of being abuse, they are likely to apply their previous experience and knowledge to determining whether or not this case is abuse. In short, if the literature states, or the practitioner's experience has been, that a person who has certain personality traits is likely to abuse his children, and a person with those traits then shows up with an injured child, the practitioner would seem likely to label that person an abuser. Conversely, a person who arrives with an injured child, but does not fit the

stereotype of abuse, may be more likely to avoid the label. (Gelles, 1975, p. 368)

Child abuse and neglect becomes the product of the child welfare system, the justice system and governments that determine and enforce labels for abusive and neglectful behaviour (Gelles, 1975). People labeled as offenders perpetuate the abusive behaviour because of a label assigned to them. A cycle is created. Personality disorders thought to be the cause of child abuse "may well be the result of being labeled an abuser" (Gelles, 1975). Gelles also raises the concern that the effect of being labeled an abuser may be more damaging to the parents and child than the actual incident itself (Gelles, 1975). Although Gelles acknowledges that certain cases exist in which a parent brutalizes a child, the author believes that those cases are unique and not reflective of the majority of child abuse and neglect cases.

There are some cases that so clearly involve abuse that they are indeed automatically recognized. The literature abounds in cases where parents killed or cruelly tortured their children. I argue that there is no objective behavior which can be automatically labeled abuse, because these "outrageous" cases constitute a minor fraction of the overall number of incidents of a caretaker injuring a child. (Gelles, 1975, p.364).

The social labeling theory demonstrates that a variety of abuse and neglect definitions exist which result in political/professional biases. The possible negative consequences of intervention with families are also exposed as a label can have devastating effects on a parent, family and child. However, a social labeling framework minimizes the reality that measurable assaultive behaviour by parents inflicted on their children exists, and has long-term detrimental effects on the development of a child (Youngblade & Belsky, 1990). In reality, many children suffer physical and psychological injuries from the abuse or neglect, and some are

murdered by their caregivers (Ammerman & Hersen, 1990; Azar, 1986; Korbin, 1989; Youngblade & Belsky, 1990).

Summary

The sociological perspective on child abuse and neglect provides a broad framework from which contextual characteristics of people who abuse or neglect their children can be studied. Reporting a link between socioeconomic status, sexism, racism and child maltreatment is critical in demanding that governments and citizens share in the distribution of resources, and alleviate preventable circumstances which may create unstable, or harsh environments in which children are raised. Oppression of all kinds has devastating results on families and if intervention is focused on the individual to the exclusion of the community, little change will result.

If family malfunctioning is to a large extent affected by cultural traditions, or their absence, and the manner in which society deals with its lower-status population, intervention by means of individual and family treatment is going to be of limited utility. Such service will, in fact, seek to remedy on a case-by-case basis the ill effects of the more powerful forces operating at the community, state, or national levels. Case-focused treatment as the chief program of intervention will mean giving preference to the remedial rather than the preventive approach in dealing with the problem. (Geismar, 1978, pp. 545-549)

It is important to note however, that abuse and neglect also exist in high income status families, and some studies show, that when poverty is controlled, poverty and related risk factors are no longer significant factors in predicting child abuse and neglect (Chamberland et al., 1986; Polansky et al., 1985; Sherrod, O'Connor, Altemeier & Vietze, 1985). There are many poor people who do not abuse or neglect their children: wealthy families may simply have the resources to hide child abuse from public scrutiny.

Low SES is neither a sensitive nor a specific marker for child abuse and neglect. That is, the majority of underprivileged families do not engage in maltreatment, and low SES is not a necessary condition for abuse and neglect. Moreover, child maltreatment occurs in all socioeconomic groups, and is not restricted to low-SES families. (Ammerman, 1990, p. 234)

There is no clear causal evidence linking poverty, economic policies, cultural or gender oppression to child maltreatment.

Interactional

Introduction

For purposes of this paper, the third theoretical category under review which attempts to explain the causes of child abuse and neglect is the interactional theory. This is a combination of several theories; the social interactional, attachment theory, systems theory, the social learning model and the ecological perspective. The interactional perspective of child abuse and neglect focuses its attention on the parent's and child's interaction and communication, and considers both critical factors in the etiology of abusive and neglecting behaviour (Vietze et al., 1991; Ammerman, 1990; Sweet & Resick, 1979). This theory is a synthesis between the individual personality problems and the socio-cultural explanations of child abuse and neglect (Sweet & Resick, 1979; National Research Council, 1993). It questions the assumption that the parent is sole actor in the maltreating behaviour found in both the sociological and psychiatric theories, and incorporates the child's role in the abusive or neglectful incident (Belsky & Vondra, 1989).

This approach emphasizes the importance of both the psychological and sociological variables and is concerned with how they interact and affect parent-child interactions. It is concerned with the lack of certain fundamental social and parenting skills in abusive parents as well as how the

characteristics of the children themselves may be contributing to the punitive behavior of the parent. (Webster-Stratton, 1985, p. 60)

The interactional model believes that the parents' interactions with the community and family are related to the abusive or neglectful behaviour. Child maltreatment is considered to be a product of many variables within and outside of the individuals. The parents' own history and experiences are considered influential in causing the abusive behaviour. The role of different family members and the precipitating events leading up to the abuse incident are all important factors to be considered (Vietze et al., 1991).

One parent may become abusive and another may not as a function of their aggregate child rearing and interpersonal skills and the frequency and intensity of aversive stimulation impinging on family members from outside or within the family unit. (Burgess & Conger, 1978, p.463)

The family, parent-child interactions, stress levels of the family, social support systems of the family, parental disturbances and cognitive dysfunctions are thought to be factors which cause abusive and neglectful behaviour.

Family Interaction

The interactional perspective believes that one of the family's main purposes is to provide children with a socialization process. Maltreatment is considered to be a symptom of the breakdown in this family process (Azar, 1986, p. 341). This perspective focuses on the abusive incident, and equally important, the family context in which the abusive behaviour occurs. The behaviour of the individual is studied, not the personality traits.

"As the child grows, different behaviours and attitudes are required on the part of the parent to provide an optimal environment for social and cognitive growth. Maltreatment may be viewed as a symptom of breakdown in this basic socialization function of the family. The abused child evidences visible

and subtle signs of this role breakdown, beyond just the physical harm done." (Azar, 1986, p. 341)

Intergenerational

One focus of interactional theory is a social learning perspective of child abuse and neglect. Studies report a connection between childhood experiences of abuse or witnessing abusive, violent behaviour, and continuing the behaviour as a parent (Ammerman, 1990; Ryan, 1989; Steele & Pollock, 1974; Sweet & Resick, 1979; Tzeng et al., 1991). Negative parent-child interactions are considered important molding experiences which set the stage for future maltreatment. Children's socialization is often affected as aversive behaviour from the home is copied. Another consequence of developing in a family with parent-child disturbances is that negative stimulation from parents and other people is often sought. As a result, children learn to encourage relationships with people who are dysfunctional. There are many proposed reasons for negative parent-child interactions:

"The cause of these negative interactions is possibly that the child is born with a lesser inability to be a reinforcement for the parent. The parent may also be ignorant of or have distorted views of the child's developmental needs. Or the parent's own energy level may be depressed or mothers who are teenagers. All of these can account for poor parent-child interactions that can lead to child maltreatment." (Azar, 1986, pp. 344-345)

The rate of intergenerational transmission of abuse has been estimated as between twenty-five and thirty-five percent (Kaufman & Zigler, 1989). Findings suggest that children who were physically abused, sexually abused or neglected have a greater likelihood of becoming an abusive or neglectful parent (Jaffe, Wilson & Wolfe, 1986; Kaufman & Zigler, 1987; Kaufman & Zigler, 1989; Kempe, 1973; Parke & Collmer, 1975; Steele & Pollock, 1974; Vietze, O'Connor, Sherrod &

Altemeier, 1991). The interactional perspective believes that people learn abusive or neglectful behaviour through their experiences as children.

"The single most common element in the lives of violent abusive adults is the experience of being neglected or abused to some degree by caretakers during their earliest years. Such experience starts the developing child along a path that predisposes him to use aggression as a means of problem solving, accompanied by lack of empathy for other humans, a diminished ability and impoverished repertoire to cope with stress, and a vulnerability to the examples of aggression and violence presented by society and culture." (Steele, 1976, p. 23)

It is believed that maltreating adults learned as children that anger was an appropriate way to express feelings. When they become adults, they continue to use aggressive behaviour as a behaviour pattern from their own childhood (Dutton & Hart, 1992).

Straus' study (as cited in Wolfe, 1985) reported that previous exposure to harsh physical punishment as a child and marital disharmony and violence as an adult were significantly associated with higher rates of severe violence toward children. Webster-Stratton (1985) found that low family income and mother's report of having been abused as a child were the most potent variables discriminating abusive from nonabusive families with conduct disordered children. The finding of a maternal history of childhood abuse was supported in further research (Cappell & Heiner, 1990; Wald et al., 1988; Watters et al., 1986).

Faller (1989) studied the history of childhood sexual abuse in caregivers of children who were sexually abused. Results showed that fifty-nine percent of the mothers (nonoffending caregivers) and forty percent of the fathers (offenders) had experienced sexual abuse in their childhood. Family types were found to have different histories of childhood abuse. In families with intact biological parents,

both parents were equally likely to have experienced childhood sexual abuse. In step or common-law families, the mother was more likely to have experienced sexual abuse and in “non-custodial father cases” the offender was more likely to have experienced childhood sexual abuse (Faller, 1989).

Milner, Robertson & Rogers (1990) examined the childhood history of abuse and its relationship to abuse potential as a parent. A childhood history of physical abuse was significantly related to adult physical child abuse potential, and as chronicity increased, so did the abuse potential. The experience of physical abuse prior to puberty produced higher abuse scores than the experience of physical abuse after puberty. In a study comparing child-neglecting adolescent mothers and nonmaltreating adolescent mothers, Zuravin and DiBlasio (1992) found that several variables exist which differentiate between neglecting mothers and nonmaltreating mothers. One characteristic is that neglecting mothers were more likely to have been sexually abused while they were growing up.

A prior history or pattern of aggressive interactions by the caregiver seems to increase the risk of further maltreatment towards other children. Isaacs (1972) believes that a child’s risk of injury or fatal maltreatment is heightened if other children have been abused in the same family: “A child is much more likely to suffer, and die, from injury in a family where other children have been abused.” This finding was supported by a later study (Christoffel et al., 1985). In a study on fatal maltreatment by mothers, Korbin (1989) found that in all the cases studied the child had a history of being abused by the mother prior to the fatality. In another study attempting to measure the mortality risk for children prior to age 18 years, children reported for physical abuse had the greatest risk for subsequent death, followed by neglect and sexual abuse (Sabotta & Davis, 1992).

Attachment

Another area of study in interactional theory is the emotional attachment between parent and child. Ainsworth and Crittenden (1989) consider the strength of attachment between an infant and his/her mother a critical factor in the creation of an abusive relationship. The attachment bond between mother and infant is necessary to develop feelings of security, as opposed to feelings of anxiety or insecurity. If a weak bond exists between the mother and infant, the risk of abusive or neglectful behaviour is heightened:

...an infant whose mother tends to be inaccessible, unresponsive, or inappropriately responsive to his behavioral cues is likely to emerge as insecure or anxious in his attachment to her. Because his bids for proximity and contact tend often to be frustrated, attachment behavior persists and tends to intensify and to become mingled with anger. Consequently, when his mother does respond, he behaves ambivalently and is hard to soothe. (Ainsworth & Crittenden, 1989: p. 438-439).

Watters et al. (1986) found that abused children were more likely to have experienced separations from their mothers when compared to neglected children.

Attachment theory also believes that abusive or neglectful behaviour is transmitted to the next generation of children by parents. The caregiver incorporates abusive or neglectful childhood experiences in his/her parenting through a psychoanalytic process. Blumberg (1981) states that an inevitable consequence of child abuse or neglect is the continuation of the maltreating behaviour as the child becomes a parent:

One of the most disastrous emotional sequelae of prolonged child abuse or neglect is the generational perpetuation of this tragedy as the maltreated youngster becomes, in adult life, an abusing parent. Having not been properly reared, he or she has not learned how to love and to relate to

others, and has not developed a proper ego and superego to control the reactions to ungratified id frustrations. (p. 354)

Tuohy (1987) states that parents who were abused as children continue the cycle of violence by abusing their children due to their own trauma in childhood: "...impaired symbiotic and separation-individuation experiences...employed by the formerly abused parent in perpetuating intergeneration cycles of abuse..." (Tuohy, 1987, p. 25).

Main and Goldwyn (1984) examine how parental abuse alters the psychological state of offspring, and the reason the abusive pattern continues in the next generation. It seems that childhood experience with attachment figures form the base on which future relationships are made. If early childhood trauma is not "remembered and integrated" and healthy relationship models not created, abusive behaviour is likely to be transmitted (Kaufman & Zigler, 1989). An important aspect of this relationship between parent and child is the method the parent uses to integrate caretaking beliefs, childhood experiences and stress in response to the child:

Women who have not resolved interpersonal issues of trust, dependency, and autonomy are likely to be considerably stressed when faced with the demands of a highly dependent child. With respect to meeting the needs of a child, these women will have difficulty viewing the child's behavior from the perspective of an independent, mature adult. They may also find themselves seeking to meet their own emotional needs in the context of the parent-child relationship and may experience hostility toward the child when those needs are not met. This explanation is also congruent with many of the factors that place women in a group at high risk for maltreatment. (Pianta, Egeland & Erickson, 1989, p. 207).

Systems

A systems framework of child abuse and neglect is another perspective of the interactional view of child abuse and neglect. Systems theory considers abusive behaviour to be a symptom of a family's problems. Child abuse is thought to be the result of a particular interactional style between all individual members of the system. The focus is concerned with the structure of the family system and methods of family functioning and interacting with other systems (Tzeng et al., 1991). Family systems view the family as an evolving interactional system, operating according to rules and principles that apply to all systems. The family is considered to be greater than the sum of its members. Systems theory has a circular view of causality: Actions by one family member result in reactions within the system: one individual's change causes change in the group which in turn causes change in the individual. In order to maintain a stable state, family members interact in ways which mutually reinforce behaviour, and any change from the proscribed behaviours and norms is seen as a threat to the family's equilibrium (Tzeng et al., 1991). Family members react to maintain this steady state and rules ensure stability to the system through the provision of guidance and norms to the individuals in the system. In a system's perspective, individual dysfunction is seen as a reflection of family dysfunction. Consequently, the individual's personal dysfunction may serve a greater purpose of maintaining homeostasis for the family system. Dysfunctional families maintain or reinforce the symptoms in ongoing interactional processes. In order to adapt to change, a family must evolve over the life cycle and shift roles within and outside of the system (Tzeng et al., 1991; Walsh, 1982).

Systems theory often considers the victim's behaviour to be as important and responsible for the abuse as the perpetrator's, or other non-offending caregiver's (Tzeng et al., 1991; Ney, 1988). "The victim is considered to be a critical player in the instigation and maintenance of the abusive behavior, and the

non-offending adult also plays a critical role in allowing the abusive behaviour to occur." (Ney, 1988: p. 363). This view is strongly emphasized when roles are reversible:

Each point of the maltreatment triquetra is made up of a person who, within him/herself possesses to varying degrees the same triangle. Although the perpetrator may be sadistic, there is also within him the tendency to enjoy observing others' sadistic behaviour and, to a lesser extent, the tendency to submit as a victim to someone who is even more sadistic. The relative strength of tendencies within each individual is determined by his previous experience and past choice. (Ney, 1988: p. 368)

The interactions between family members is at the heart of interactional theory of child abuse and neglect. A great many studies have found negative interactions characteristic of maltreating families. Davis and Graybill (1983) compared the family environment of physically abusive and non-abusive families. Results showed that abusive families were less likely to have a positive basis for interaction. The physically abusive families were less supportive of each other, and members were less free to express their wants or desires. Compared with the nonabusive families, the physically abusive families were more independent, and more likely to express anger and aggression. Rigid rule-making and structuring of family activities was more evident in the abusive families. The abusive families were more hierarchical in structure, with decisions made by the parents, not shared with other family members. Herrenkohl et al. (1984) studied parent-child dyads in abusive and nonabusive families. The study showed that maltreatment was found to be associated with more parental rejection and less child warmth when controlling for income.

Bousha and Twentyman (1984), examined mother-child interactional styles in abusive, neglectful and non-maltreating families. Abusive and neglectful mothers

and their children differed in several behavioral categories, possibly indicating that they represent fundamental different forms of child maltreatment. The study determined that neglectful mothers interacted least with their children, and abusive mothers interacted much more than neglectful mothers, but much less than the control group. The abusive mothers demonstrated substantially higher rates of physical and verbal aggression than did either the neglectful or the control mothers. The neglected children displayed a depressed rate of positive social behaviour: They demonstrated less verbal and nonverbal instruction as well as fewer social initiations. Neglected children also demonstrated high rates of physical aggression. Abused children had the highest rates of physical and verbal aggression and differed from the control children on both of these measures.

Wolfe (1985) reviewed studies comparing child-abusive parents and nonabusive parents on psychological and behavioral dimensions. Few of the studies reviewed found significant differences between abusers and nonabusers on psychological dimensions, but abusers were more likely to report stress-related symptoms. Abusers displayed more aversive and less prosocial reciprocal patterns of behavior with their children and spouses compared with nonabusers.

“This relation between child abuse and situational events argues for a better understanding and assessment of psychological variables that exert an influence on parental competence, as opposed to psychopathology.”

(Wolfe, 1985: p. 479)

Schindler and Arkowitz (1986) also looked at interactional styles and parenting skills of abusive and nonabusive mothers. They found that physically abusive mothers engaged in less behaviour toward their children, praised their children's appropriate behaviour less often than control mothers, and complied less often to requests. Lynch and Cicchetti (1991) compared patterns of relatedness in maltreated and nonmaltreated children. They found that the maltreated children were

more likely to have a confused pattern of relatedness with their mother than the nonmaltreated group of children. The nonmaltreated children were likely to have an optimal pattern of relatedness with their mother (Lynch & Cicchetti, 1991).

Family interactions differentiated between maltreating and nonmaltreating families in other studies. Cappell and Heiner (1990) found an association between parent-to-child aggression and wife-to-husband aggression, suggesting that women who are aggressive towards their husband are more likely to be aggressive toward their child. Bradley and DeV Peters (1991) compared physically abusive and nonabusive mothers' perceptions of parenting and their child's behaviour. The authors found that the abusive mothers were less likely than nonabusive mothers to hold themselves responsible for unsuccessful interactions with their children and gave their children little credit for successful interactions. Silber, Bermann, Henderson and Lehman (1993) compared physically abusing, substance abusing families and matched nonabusive families. These authors found that abusive fathers influenced others' behaviour with coercive means and had more negative patterns of response to other family members. The mothers in abusive families were more critical of their husbands. Abused children disagreed with, and criticized their fathers more when compared with the nonabused control group. The abusive families also demonstrated fewer reciprocated sequences of agreement, and more reciprocated sequences of criticism when compared with the nonabusing families. It seems that supportive interactions are difficult for abusing families to maintain. This finding is supported by further studies (Dinwiddie & Bucholz, 1993; Glaser, Sayger & Horne, 1993; Salzinger, Feldman, Hammer & Rosario, 1991).

Attitudes, belief systems, perceptions of self and others are believed to contribute to the validation of aggression as appropriate feelings and behaviour (Azar, 1986; Hansen & MacMillan, 1990). Cognitive deficits of caregivers may interact with arousal levels and result in aggressive behaviour. Some parents are

more easily excited by environmental stimuli and need to withdraw from parent-child interactions in order to control violent behaviour. When a caregiver is unable to withdraw from parenting, aggressive behaviour is often used (Azar, 1986; Hansen & MacMillan, 1990). Parents lacking in impulse control are thought to have insufficient problem-solving skills which result in impulsive behaviour when dealing with problems. In a comparison of abusive and control parents, Trickett and Kuczynski (1986) explored the kinds of consequences parents give for children's misbehaviours. These authors were questioning whether abusive parents lack skill in managing children's behavior. The findings showed that abused children committed more aggressive transgressions and were more likely to oppose parental interventions than the control children. Abusive parents reported feeling more angry and disgusted with themselves after disciplinary interventions than did the nonabusive parents. The type of discipline used by control parents depended on the type of child misbehavior. With abusive parents, punishment was the predominant type of discipline regardless of the types of child misbehavior.

Hansen et al. (1989) compared the problem-solving skills of physically abusive parents, neglectful parents, clinic parents seeking help for child behaviour problems, and non-help-seeking community parents. Results of the research showed that community and clinic groups did not differ significantly on any problem-solving measure, and neither did abusive and neglectful parents. Clinic parents generally exhibited the highest level of skill of problem-solving, followed by community, neglectful and finally abusive parents. Neglectful parents reported that their children exhibited a significantly lower frequency and number of problem behaviors than abusive parents. The number of solutions generated was the strongest measure of differences between the maltreating and nonmaltreating groups.

Ecological

The ecological view of child abuse and neglect is another interactional framework that considers the interactions between individuals, their family, culture and society as contributors to abusive or neglectful behaviour. Its origins are in Bronfenbrenner's theory of nested systems: the microsystem, the mesosystem, the exosystem and the macrosystem (Bronfenbrenner, 1977; National Research Council, 1993).

Reciprocal processes and second-order and higher order effects are the rule, for a developmental change in the state and status of one member of the system invariably alters the relations between the others. Since almost every transition involves more than one setting, reciprocal processes occur not only within but also across setting boundaries, thus involving interaction effects at the level of higher order systems. (Bronfenbrenner, p. 525: 1977)

The psychological and sociological theories of the causes of child abuse and neglect are not viewed separately, rather they are combined to integrate the family (microsystem), the individual (ontogenic development), the immediate environment or community (exosystem) and the larger environment and/or culture (macrosystem). All levels are important forces which interact, cause and maintain abusive behaviour (Belsky, 1981; Vondra, 1990). "The ecological approach, which is social psychological, asserts the impact on family functioning of the human environment in which it is embedded." (Polansky, Ammons & Gaudin, 1985, p. 38).

Similar to the systems' perspective on child abuse and neglect, the ecological perspective stresses the importance of interactions between levels and attempts to combine many systems.

Thus, ecological theory, as applied to child physical abuse and neglect, suggests that community characteristics have etiological significance. Some

families and children are at high risk for child maltreatment while living in certain neighborhoods and at less risk while living in others. High-risk neighborhoods are characterized by demographic, social, and physical characteristics that negatively impact on family and individual stress levels by decreasing the availability as well as adequacy of support systems. (Zuravin, 1989, p. 102)

The perpetrator's personality traits, personal resources, stresses, and cognitive processes interact with characteristics of the family, values and norms of the community and larger society, and the personal characteristics of the child (Azar, 1986; Belsky, 1981; Hegar & Yungman, 1989; Newberger et al., 1985; Tzeng et al., 1991; Vondra, 1990). Change in one level affects all the other levels (Bronfenbrenner, 1977). Societies which devalue children, encourage the use of violence, or create neighbourhoods of poverty, can result in parents maltreating children (Polansky, Ammons & Gaudin, 1985; Tzeng et al., 1991).

"Taken together they can fully describe the functioning of a specific individual as a member of his family and within the social and cultural patterns through which the family operates" (Steele, 1976, p. 9)

Newberger et al. (1985) found that the families of children with "social illness" experienced more stress than families of children with nonfatal acute medical conditions:

"Whether or not abuse or failure to thrive had occurred in these families, they usually had woefully inadequate financial means and major problems in intimate relationships. The mother's entire life may have been impoverished and punctuated by violence and abandonment." (Newberger et al., 1985, p. 600)

In a review of research literature on neglect, Hegar and Yungman (1989) examined the etiological factors of three types of neglect; physical, developmental and

emotional. The authors found that stresses, cultural beliefs, lack of skills or support, family problems with roles or relationships and personality characteristics of caregivers are factors which contribute to the neglectful behaviour.

A higher incidence of single female caregiving and fewer social supports are other variables identified in many studies as distinguishing maltreating families from nonmaltreating families. In an attempt to differentiate between a control group and child abusive families, a high-risk family profile was developed (Newberger et al., 1985). Several variables were identified: family wealth; low socioeconomic status; mother's unhappy childhood; mother's attainments: less skilled and less educated; mother's state: beset by physical and psychological problems; mother's relationships: single, separated or divorced; child's state: mother's reported them as being less healthy; father's background: broken marriages.

Studies have also revealed that mothers of maltreated children are often socially isolated. Chamberland et al. (1986), found that women of similar economic level, but with a lower rate for child maltreatment, demonstrated a difference in the structure of their social support. Mothers with higher rates of maltreatment had a personal support system that has more conflict, less availability, and less variety; they were dependent on professionals to provide them with emotional and normative support. These mothers were also less in contact with the working force. The authors found the more the areas differed in their maltreatment rates (high/low), the stronger was the difference in mothers' social support configurations. The results seem to support the hypothesis that there is a strong connection between poverty, isolation and child maltreatment, and stresses the importance of cultural, political and psychosocial variables which can create risk situations for child maltreatment. Pianta et al. (1989) found that maltreating mothers lacked social supports and were socially isolated when compared with the control groups. The

maltreating mothers also experienced greater life stresses and emotional turmoil than the nonmaltreating mothers (Pianta et al., 1989).

Stress has also been identified as a characteristic more likely to be found in maltreating families. Polansky et al. (1985) found that neglectful mothers had more children than non neglecting mothers. Schindler and Arkowitz (1986) compared physically abusive mothers and their children with matched nonabusive mothers and their children. Among other identified characteristics, abusive families were also found to have more children. This finding was supported by further studies (Ammerman et al., 1989). Margolin (1990) compared fatal child neglect and physical abuse and non-life threatening neglect characteristics. The study found that large family size was associated with fatal neglect (4.9 children to 3.3 children). Zuravin and DiBlasio (1992) studied characteristics of neglectful and non maltreating adolescent mothers. The authors found that education and number of children, were the two variables with a modest success for predicting neglect by teen mothers. Korbin (1989) concluded that stress is a characteristic apparent in fatally and non-fatally abusive parents lives parents' lives. Both live in families characterized by high stress, financial difficulties, spousal abuse, prior child abuse incidents, and have had prior involvement with social service agencies.

Ayoub et al. (1992) found that the number of "distressed" parenting problems and the number of violence/maltreatment problems experienced by a family were predictive of changes in functioning over time. The "situationally" stressed families' functioning improved the most rapidly over time with treatment. These families seemed to be in a situation in which they were reacting to an acute situational stress: poverty, immigration, single caregiver, adolescence, limited support systems. The "chronically" stressed families, were found to be similar to the situationally stressed families however they also experienced one chronic stressor: handicapped child, or ongoing difficulties with intimate relationships.

These families demonstrated a slow improvement in parenting over time. The “parental emotional” distress group shared the same problems as the previous groups, however this group had emotional difficulties, including low self-esteem and depression. Considerable problems with extended families were also evident in this group. These parents were also lacking in basic parenting skills. With support, these families could maintain their well-being, although change in parenting was minimal. There were few problems of violence and maltreatment. The “multi-risk” families had multiple, complex, individual and family crisis of long-term duration; history of violence, disturbed parent-child relationships, low self-esteem, depression, substance abuse, and spouse abuse. These families engaged in specific conflicts with their children and were emotionally abusive. Family functioning seemed to deteriorate over time. There was a high number of distressed parenting problems, and violence/maltreatment problems within this group.

Family type is identified as distinguishing maltreating from non-maltreating families. Neglectful families have been characterized as having more single, young mothers compared to abusive families (Watters et al., 1986). Wald et al. (1988) found that mothers of abused or neglected children in care experienced a much higher divorce or separation rate than nonmaltreating mothers. Mothers of maltreated children who were not placed in care, had divorce or separation rates that fell between the two groups. In a study on fatal child neglect (Margolin, 1990), neglect fatalities were found to differ from abuse fatalities in family composition. More families with neglect fatalities were headed by a single female caregiver. A single caregiver was also found to increase the risk of children in a study of child abuse and neglect related fatalities (Schloesser et al., 1992). In a study comparing intensive family preservation services with abused and neglected children, neglectful families, in contrast to abusive ones, were poorer, more reliant on public income, more likely to be headed by a single parent, had more children at imminent

risk of placement, and were more likely to have medical, mental health, and substance abuse problems (Bath & Haapala, 1993).

Ferleger, Glenwick, Gaines and Green (1988) compared a sample of abusive parents on parent, child, and treatment variables which are supposed to influence reabuse. "Never married" abusers without a personal abuse history reabused significantly more than never married abusers with a personal abuse history. A tendency seemed to exist among reabuse/nonreabuse, treatment length and the abuser's marital status. Those who were in treatment less than six months and were currently married reabused more often than those who were in treatment less than six months and were "currently unmarried." The trend was not present for subjects in treatment more than six months. This data suggests that marital status, official reporting of abuse and personal abuse history may partially account for the extent of reabuse. No difference was found between three types of abuse; physical, sexual and neglect and the extent of reabuse. The data indicated that interactions involving several variables; income source, marital status, and the abuser's personal abuse history, differentiated between reabusers and nonreabusers:

"Thus, the recurrence of abuse may perhaps be more profitably explicated by investigation of the potential joint influence of several variables than by examination of these factors in isolation from one another." (Ferleger et al., 1988: p. 46)

Hamilton, Stiles, Melowsky and Beal (1987) compared abusive and nonabusive parents on three of the four ecological levels: individual, family, and the environment. Results showed that abusers identified with more intense life stresses than nonabusers. The abusers described their children as more troublesome than control parents. The authors found that the ecological model supported their findings that the different levels are all important in accounting for child abuse:

Based on the present results, individual interventions aimed at raising self-esteem or lowering impulsiveness, family intervention for remediating deviant child rearing practices or interaction patterns, or community interventions designed to lower life stresses (e.g., employment, public health) might be equally effective in reducing child abuse. Alternatively, reducing child abuse may require simultaneous intervention at multiple levels. (Hamilton et al., 1987: p. 223)

Summary

The interactional theory is useful in its inclusion of both individual and social factors as responsible for the perpetration of child maltreatment. It acknowledges that individual personality problems can interact and be influenced by the environment which may result in maltreating behaviour. There are however, some limitations to this perspective. Although the experience of childhood maltreatment is reported to raise the risk of perpetrating child maltreatment as an adult, there is no empirical evidence that supports a causal relationship between childhood abuse and later adult offending behaviour (Kaufman & Zigler, 1989). Rocklin and Lavett, (1987) stress that nonmaltreating parents abused as children are overlooked in research studies when compared with abusive parents: "There have been, in fact, no longitudinal studies of abused children through their parenting years, so it is unknown if a majority, or even a significant minority, of abused children will become abusive parents" (Rocklin & Lavett, 1987, p.769). There are many parents who were abused as children and do not abuse their children and many parents who were not abused as children who do abuse their own children (Kaufman & Zigler, 1989).

Many studies show that the majority of parents abused as children do not perpetuate the maltreating behaviour with their children. Spatz Widom (1989) compared physical abuse cases and sexual abuse cases to a matched control group.

Adults who were abused as children had a slightly higher rate of arrests for violent crimes than control adults, but the two groups had almost identical frequencies of official arrests for child abuse or neglect. It seems that being abused as a child increases the risk of having an adult criminal record. It is important to note that the majority of the abused and neglected group did not have official records for adult crimes in any of the analyses. Cappell and Heiner (1990) found that the cycle theory of violence was not supported in predicting abusive behaviour of fathers. Knowing whether a person was raised in a violent family was more helpful in predicting whether they would become victims to abuse rather than offenders when they were adults. Findings showed that fathers did not learn aggressive behaviour from their families of origin. This implies that the source of this behaviour is not limited to the family environment; internal and external factors must be examined:

...the fact that the fathers in our subsample did not learn from their families of origin to behave aggressively toward their children does not mean that fathers are never abusive. Rather it implies when aggression between father and child occurred, it emanated from a different source, either individually based violent "natures" or from learned roles available to them outside of the family or origin. (Cappell & Heiner, 1990, p. 150)

Smith and Williams (1992) studied self-reports of students from abusive households and those from homes where no abuse was evident. Students from abusive households showed a higher incidence of dating violence than those from homes where no abuse was evident. However, the rate was not that different between the two groups: one in six children from nonabusive households use violence, one in five children from abusive households use violence. Students from violent homes considered violence as negative as those from nonabusive homes. Based on these results, there is little support for the cycle of violence hypothesis.

Although there is apparently a greater risk of dating violence among students who have experienced violence at home, these data do not support the idea of an inescapable pattern of violence among adolescents who have experienced violence themselves. (Smith & Williams, 1992, p. 153)

Benedict, Wulff and White (1992) examined stress in maltreating and nonmaltreating families of children with multiple disabilities and found that a history of maltreatment is not related to the family's currently perceived stress levels.

Another limitation with the interactional perspective is that it could be used to remove responsibility for the abusive behaviour from the offender, and disperse it among all the family members. This practice can have damaging effects, particularly on children in these families: it ignores power dynamics of gender and culture and implies that all family members interact on a level playing field (Tzeng et al., 1991).

The interactional perspective does not distinguish between the primary and secondary sources of the maltreating behaviour. Which occurs first, the abuse or neglect, or the individual and environmental characteristics. Nor does the interactional perspective explain the process of how the maltreating behaviour occurs: what magnitude of what variable, in association with what other variable(s), result in maltreating behaviour. An interactional theory does not explain the process of abuse or neglect (Belsky, 1981). Consequently, a causal relationship is not defined.

The strength of the interactional perspective is its integration of the individual, familial, environmental and cultural factors as important contributors to child abuse and neglect. It combines the psychiatric and sociological factors in an attempt to form one theory of the etiology of maltreating behaviour. It becomes "...a system capable of integrating divergent etiological viewpoints that stress

psychological disturbance in parents, abuse-eliciting characteristics of children, dysfunctional patterns of family interaction, stress-inducing social forces, and abuse-promoting cultural values.” (Belsky, 1981: p. 638)

Discussion of Literature Review

This overview of etiological explanations of child abuse and neglect demonstrates the great variety of characteristics which studies have found to be associated with child maltreatment. The individual personality flaw perspective considers that parents who are abusive or neglectful have a deficit in their character. The sociological perspective stresses that it is the environment which encourages parents to abuse and neglect children due to a stressful, competitive and unequal society. The interactional perspective attempts to integrate views of both the individual personality flaw and sociological perspectives. It believes that individuals interact with other individuals within and outside of their family system, and abusive and neglectful behaviour results as a reaction to a multitude of variables; poor attachment in childhood, learned styles of communication, environment and individual stressors.

Most studies identify specific features which characterize families with abuse or neglect problems, or distinguish between, maltreating and nonmaltreating families. The review of the individual personality flaw theory identified the following traits as important characteristic of maltreating parents, or traits which demonstrate differences between maltreating and nonmaltreating parents: emotional/personality disorders; aggression; social isolation; loneliness; inability to show empathy; low self-esteem; depression; substance abuse; immaturity; age of child and developmental problems. The sociological perspective identifies political, social and economic inequality, labeling, sexism, and racism as problems which create an environment that promotes the use of violence and neglect against

children. Symptoms of this oppression are apparent in rates of transience, poor housing, low educational levels of parents and high unemployment rates. The interactional perspective identifies many characteristics which distinguish between maltreating and nonmaltreating families: poor attachment between mother and child; a history of maltreatment in childhood; aversive, rigid, independent, hierarchical, aggressive interactions between members; parental rejection; depressed, aggressive or handicapped children; high stress levels; few supportive interactions between family members; lack of impulse control; use of punishment as a disciplinary measure; few problem-solving skills; and marital status. Clearly, many characteristics have been identified as factors somehow associated with families that abuse or neglect their children. Unfortunately, it remains unclear as to why certain families with specific characteristics maltreat their children while other families, reflecting the same characteristics, do not abuse or neglect their children: "As with ecological factors in the etiology of maltreatment, parental characteristics are poor markers for abuse and neglect. The preceding descriptions are not unique to maltreatment and are found in many distressed but nonabusive-nonneglectful families" (Ammerman, 1990, p. 238).

Problems arise when reviewing these studies. Much of the research of child abuse and neglect use different definitions of child abuse and neglect and consequently do not compare similar phenomenon (Ammerman, 1990; Ferleger et al., 1988; Giovannoni et al., 1978; Howing et al., 1989; Hutchison, 1990; Starr, MacLean & Keating, 1991; Wald, 1988; Zuravin, 1991). This creates both broad and narrow definitions of abusive or neglectful behaviour and difficulty in comparing results of different studies. As well, many studies do not use comparison groups. This limits any conclusions drawn about nonabusing families (Kaufman & Zigler, 1989).

The use of risk factors which identify families that are more vulnerable to child abuse and neglect have become a means of creating models explaining abusive and neglectful behaviour. However it is critical for these risk factors to be accurately identified, based on all families, as opposed only to relatively small samples of known abusive families. (Herrenkohl, 1990, p. 93)

Most of the research does not define optimal parenting, and simply focuses on abusive or neglectful behaviours (Giovannoni et al., 1978). The theories and research studies often combine maltreatment types and does not distinguish between causes of abuse and neglect.

Existing models are inadequate for several reasons. One is that constructs in the models are not well-defined. Such constructs as "parenting" are not sufficiently explicit to indicate which aspects of inadequate parenting have the more detrimental effect on the child and how different aspects of parenting are interrelated. Because of the inexplicitness of these models, development of operational definitions is difficult. Another difficulty is that there is little differentiation between the causes of one type of abuse and the causes of another and suggested causes of one type of abuse may overlap the proposed causes of a second type. (Herrenkohl, 1990, p. 91)

Another problem with reviewing child abuse and neglect literature is the magnitude of information available on physical or sexual abuse, and the comparatively small amount of information available on neglect (Ammerman, 1990). The neglect literature, has mostly focused on maternal caregiving as opposed to paternal caregiving, thus limiting knowledge on the second caregiver's role in the maltreatment (Hegar & Yungman, 1989; Swift, 1991).

It also important to note that in many studies the interaction of many variables on the abusive or neglectful behaviour are not independently tested for

their unique or combined effects on the maltreating behaviour; it is very difficult to identify the specific influences of one variable and the magnitude of its influence on the behaviour, separate from the context in which it was measured (Kaufman & Zigler, 1989).

Many factors have been identified as contributing to the occurrence of child maltreatment, but single-factor theories of child maltreatment have not been able to identify specific mechanisms that influence the etiology of child maltreatment. Such environmental factors as poverty and unemployment and such individual characteristics as a prior history of abuse, social isolation, and low self-esteem have been significantly associated with child maltreatment offenders, but the relationships among such factors are not well understood in determining the origins of child maltreatment. (National Research Council, 1993, p.10)

The main limitation of all the studies identifying etiological variables in child abuse and neglect behaviour, is that a causal relationship has not been proven (Kaufman & Zigler, 1989): "Child maltreatment has proven to be so complex that it defies a single theoretical explanation....This is particularly true in the case of neglect, in which a fully satisfying etiological account has not been developed" (Ammerman, 1990).

It is crucial to child welfare and related fields that various aspects of theories be combined to provide a perspective on child abuse and neglect which recognizes the diversity of causal and associated factors in the behaviour and perpetuation of it. The interactional perspective has tried to fulfill that necessity, however, the causal relationships between certain characteristics and child maltreatment remain to be discovered. With one resulting theory, interventions could be modified as required, based on the actual needs of the individual people and families. This would result in

more consistent provision of service to these families, with child welfare and related professions:

...the most important component appears to be the assessment and integration of the diverse theories advanced by researchers to explain child abuse and neglect....Through this effort a comprehensive theoretical framework can be developed that will (1) provide a comprehensive common foundation within and among various disciplines, (2) facilitate the analysis and integration of information from all disciplines, and (3) erode the definition and conceptual problems that impede progress in the field. (Tzeng et al., 1991, p. 10)

Theories of child abuse and neglect attempt to determine which variables cause or are associated to the maltreating behaviour. Caution is appropriate when interpreting and evaluating studies on this subject. More research on greater numbers of families needs to be executed in order to support, modify, or abandon current etiological theories of child abuse and neglect. Based on theories, intervention and treatment plans are created and outcomes evaluated. With further studies and more consistency within studies, more knowledge about the causes of child abuse and neglect could be discovered. A sound knowledge of the causal factors of child abuse and neglect by caregivers is critical for intervention with these families:

Ultimately, the importance of understanding etiology in child maltreatment is tied to the application of that knowledge. When those empowered to intervene lack tools for distinguishing between types of maltreatment problems with different causes and dynamics are treated as similar by police, medical personnel, child protection staff, and the courts. (Hegar & Yungman, 1989, p. 217)

Research Methodology and Design

Introduction

This section describes the methodology and design used in this research. In order to proceed with data analysis and assess whether the hypotheses are supported (or not), clarity of the phenomena being studied must be stated through abstract and operational definitions of specific concepts. A brief review of a quantitative approach to research follows as this explains the basis for operationalizing abstract definitions. The abstract and operational definitions of the phenomena studied delimit the selection of families with chronic physical abuse, chronic sexual abuse and chronic neglect problems for the sample. These definitions are the foundation upon which data analysis is performed; Definitional clarity allows for consistency in counting or measuring phenomena. The level of measurement and unit of measurement of the variables on the data collection forms are also provided. A brief summary surrounding the application of continuous data analysis techniques with ordinal level variables provides the framework for performing factor analysis and t tests with the data. The research design, sample selection, instrumentation, and data collection methods are also reported. Issues of validity and reliability are then discussed. Finally, a summary of the statistical analysis techniques used in this research provides a brief overview of factor analysis and multiple regression analysis.

Qualitative vs. Quantitative Issues

Different methods used to study, record and analyze social phenomena affect the interpretation of research results. Researchers who use a quantitative approach to the study of social phenomena believe that some social phenomena are observable and measurable. Those supporting the use of qualitative methods argue that social sciences are not the same as “hard”, natural sciences, and a positivistic

approach to study of these phenomena results in a loss of richness of content and as a consequence, does not study the actual phenomena. Qualitative research yields categorical responses whereas quantitative research yields numerical responses. There are two categories of quantitative measurement: discrete and continuous. Discrete measures yield numerical responses arising from a counting process and continuous yield numerical responses arising from a measuring process (Berenson, Levine & Goldstein, 1983; Hoel, 1960). The variables used in this paper have been quantified as discrete and continuous data. It is important to briefly touch on some of the issues raised in the representation of variables as numbers.

Qualitative and quantitative approaches to research are reflective of philosophical and methodological differences. Quantitative research methodology came under scrutiny due to its approach to the study of social phenomena:

The pivotal point for much of the controversy was the appropriateness of a natural science model to the social sciences. Whereas the writers of the earlier methods textbooks almost took for granted the desirability of following natural science procedures, the proponents of qualitative research argued that this was an inappropriate model for studying people. (Bryman, 1988: p.3)

Positivism is the base upon which quantitative scientific method is rooted (Bryman, 1988). A positivistic approach believes that the social sciences are no different in methodological process from the natural sciences:

The same sorts of reasoning, method, and explanatory role were seen to characterize the social and the natural sciences. Social facts, like physical facts, were said to be equally real, equally empirical, and equally measurable, and it was believed that their study would ultimately generate the same kinds of law-like propositions and explanatory coverage believed to be present in the natural sciences. (Truzzi, 1974, p.1)

Positivism believes that human beings can be studied with the same methods and procedures used to study objects in the natural sciences. It supports the view that these procedures are appropriate for research in the social sciences. Positivism considers phenomena to be valid if it can be observed and measured; other nonobservable or measurable phenomena is considered invalid to the pursuit of knowledge (Bryman, 1988). Knowledge is found through the gathering of facts with which theories are supported (or destroyed). Part of the process of quantitative research is to form hypotheses based on the theories which are tested and revised when they do not meet the standards of “rigorous empirical examination” (Bryman, 1988: p.15). Positivism also demands that scientists rid themselves of values which hinder the realization of knowledge. Values create subjectivity within the research process and ruin the requirement of scientific objectivity (Bryman, 1988: p.15).

Another aspect of positivism is its support of the doctrine of operationalism. This is defined as:

Simply stated, operationalism seeks to remove the ambiguity in the concepts that are typically embedded in scientific theories by specifying the operations by which they are to be measured. Once concepts have been operationalized, we would conceive of them almost exclusively in terms of the procedures developed for their measurement. (Bryman, 1988: p.17)

Operationalism also supports the position that if a concept cannot be operationalized, it does not have a place “in the subsequent development of scientific theories in a particular field of inquiry” (Bryman, 1988: p.17). A key issue of quantitative research is the link between concept and the measurement of concepts.

According to many textbook accounts, as we reflect on the nature of the social world we come to recognize certain patterns of coherence. We recognize, in particular, that there are classes of objects which seem to

exhibit a commonality. As we come to view a particular class of objects in this way, we want to say something about what it is that holds them together. To facilitate this exercise we give a name to this collectivity and we now have a concept. The problem, then is to demonstrate whether the concept actually exists and to classify people, organizations, or whatever, in relation to it. This last phase is often referred to as the operationalization of the concept, that is, we want to measure it. (Bryman, 1988: p.23)

In opposition to the use of quantitative research methods in the social sciences, qualitative researchers believe that important differences exist between the natural and social sciences (Schwandt, 1994, p. 119). Concerns about the use of quantitative measurement in the social sciences are that the context in which the phenomenon occurs is lost, and that the researcher attempting to measure the phenomena is not scientifically objective (Lofland & Lofland, 1984; Mash, 1991; Schwandt, 1994).

This difference necessitates a concern for the subjective states of men, a concern with interpreting and understanding men's motives and cognitions. The process of subjective interpretation (*verstehen*, as it was called by the Germans who initiated this debate) was seen as an essential and necessary part of the development of a social science. (Truzzi, 1974, p. 2)

Qualitative research methods attempt to include the uniqueness of people in its analysis and remove rigid concepts placed on people by quantitative analysis (Bryman, 1988; Lofland & Lofland, 1984; Schwandt, 1994). Those supporting the use of qualitative research methods believe that there are important phenomena which are not directly measurable yet are crucial to forming hypotheses and theories. Process, descriptive detail, seeing through the eyes of the people being studied, understanding the context of the people being studied, flexibility and lack of structure, are all aspects of qualitative research which are deemed important

(Bryman, 1988; Schwandt, 1994). These researchers argue that qualitative research allows the researcher to collect and analyze data in a creative manner, inclusive of rich contextual information and less restrictive and rigid when compared with quantitative procedures (Glaser & Strauss, 1967; Schwandt, 1994).

Many qualitative researchers believe it is impossible to obtain any kind of generalized laws in the social sciences when compared with the natural sciences due to the sociocultural subjectivity of the social sciences. It is a belief that hinges on the method used for the definition, measurement, interpretation and analysis of variables. The human sciences are considered special and different from the natural sciences and deserve to be studied from insights:

Humanistic and artistic insights are the goals of the social sciences, and these are achieved not through the methods of the natural sciences but only by means of empathetic identification with the values and meanings examined in the minds of social actors. This is the process of subjective understanding or interpretation (*verstehen*), and we achieve such understanding through a process of “reliving” social events. (Hodges, 1974, p. 8)

Both qualitative and quantitative research methods attempt to study social phenomena. Both represent the phenomena through the use of symbols: usually words or numbers, based on definitions thought to represent the actual phenomenon. However, qualitative and quantitative research have different methods of defining and interpreting a concept. Quantitative research represents social phenomena through numerical symbols as a result of either a counting or measuring process, based on the operational definition. Qualitative research is a process of continual interpretation of phenomena, construction of phenomena and redefinition of phenomena.

Due to the subjective nature and constant revision necessary for qualitative research, this paper uses a quantitative approach to the study of characteristics of families with chronic abuse and neglect problems. If all phenomena were subjective, and each individual's perspective a unique experience, it would be difficult to provide any kind of interpretation and verifiable interpretation of social phenomena (Schwandt, 1994). What is defined as truth or knowledge becomes dependent on an individual's perspective, and a creation of the mind. There is no "real world that preexists and is independent of human mental activity and human symbolic language" (Schwandt, 1994, p. 125).

Qualitative and quantitative approaches to research can also be viewed as complementary methods in the study of social phenomena. Differences or similarities in descriptive characteristics of families with chronic abuse or neglect problems can be supported through the quantitative analysis of those characteristics. The combination of qualitative research methods and quantitative methods provide congruence to the research: validity of research findings can be enhanced when results from one method confirm the other (Bryman, 1988). The use of both research methods can further knowledge in the social sciences. Results of a quantitative research study could provide information about a social phenomenon that might otherwise not be known, or support findings from previous research. This may in turn influence knowledge about a phenomenon and provide a legitimate reason for the use of quantitative methods:

For many qualitative researchers, quantitative analysis of qualitative data is not qualitative research, which they would define as seeking to understand persons and settings in natural as opposed to mathematical language. If, however, quantification can advance knowledge, then it has a claim on legitimacy. (Gilgun, 1991, p.159)

Although the concerns raised about the use of quantitative research methodology in the social sciences are acknowledged, this paper accepts the premise of a quantitative viewpoint that it is possible to observe, define and measure social phenomena, cognizant that the phenomenon is represented by symbols, and the actual phenomenon is not part of the research process. The critical issue becomes how to measure phenomena in the social sciences. Measurement must be based on operationalized definitions of the abstract concepts.

Abstract Concepts and Operational Definitions

Abstract Definitions

The specification of definitions for abstract concepts is the first step in the process of measurement. Clear definitions of child abuse and neglect are important for integrating findings from research studies (Zuravin; 1991). Abstract definitions provide the base upon which operational processes are defined. The abstract definition should reflect a conceptual clarity and state what criteria is necessary to belong to its classification (Zuravin, 1991; Giovannoni, 1989). A definition must also “delineate” a category which is different from other phenomena based on specific qualities; “Any definition is a classification. It is a means by which some phenomenon or set of events can be set apart from others because its members share commonalities that nonmembers do no share.” (Giovannoni, 1989, p.10). For the purposes of this research, the Child and Family Services Act of the province of Manitoba (1985) provides the abstract definitions of child physical abuse, child sexual abuse and child neglect.

A child in need of protection.

The following excerpts highlight the Child and Family Services Act's definitions of physical abuse, sexual abuse and neglect and a "child in need of protection" (Bernstein, Paulseth, Ratcliffe & Scarcella, 1990):

17. - (1) For purposes of this Act, a child is in need of protection where the life health or emotional well-being of the child is endangered by the act or omission of a person. [re-en. 1989-90, c. 3, s. 3]

Illustrations of child in need.

(2) Without restricting the generality of subsection (1), a child is in need of protection where the child

(a) is without adequate care, supervision or control;

(b) is in the care, custody, control or charge of a person;

(i) who is unable or unwilling to provide adequate care, supervision or control of the child, or

(ii) whose conduct endangers or might endanger the life, health or emotional well-being of the child, or

(iii) who neglects or refuses to provide or obtain proper medical or other remedial care or treatment necessary for the health or well-being of the child or who refuses to permit such care or treatment to be provided to the child when the care or treatment is recommended by a duly qualified medical practitioner;

(c) is abused or is in danger of being abused;

(d) is beyond the control of a person who has the care, custody, control or charge of the child;

(e) is likely to suffer harm or injury due to the behaviour, condition, domestic environment or associations of the child or of a person having care, custody, control or charge of the child;

(f) is subjected to aggression or sexual harassment that endangers the life, health or emotional well-being of the child;

(g) being under the age of 12 years, is left unattended and without reasonable provision being made for the supervision and safety of the child; or

(h) is the subject, or is about to become the subject, or an unlawful adoption under section 63 or of an unlawful sale under section 84. [am. 1987-88, c. 19, s.8; re-en. 1989-90, c. 3, s. 3]

(Child and Family Services Act, 1985-86)

The Act also defines abusive behaviour as:

1. "Abuse" means an act or omission by a parent or guardian of a child or a person having care, custody or charge of a child, where the act or omission results in

(i) physical injury to the child,

(ii) emotional disability of a permanent nature in the child or is likely to result in such a disability, or

(iii) sexual exploitation of the child with or without the child's consent;

(Bernstein et al., 1990, p. 3.14.1)

Physical abuse.

One section of the Child and Family Services Act which refers to physical abuse states the following:

2. "Physical Abuse" means an act or omission by the parent, guardian or person in whose care a child is, which act or omission results in harm to the child. It includes, but is not necessarily restricted to: physical beating and failure to provide reasonable protection for the child from physical harm.

(Appendix 330A, Manitoba Guidelines on Identifying and Reporting Child Abuse)

Sexual abuse.

As well as the previously mentioned section, the act defines sexual abuse in the following manner:

3. "Sexual Abuse" means any exploitation of a child, whether consensual or not, for the sexual gratification of a parent or person in whose care a child is and includes, but is not necessarily restricted to: sexual molestation, sexual assault, and the exploitation of the child for purposes of pornography or prostitution.

Sexual abuse includes "incest." Incest is a crime under the Criminal Code of Canada. Therefore, the involvement and participation of the local police force are essential in all child sexual abuse investigations.

Sexual activity between children may constitute sexual abuse if the differences in ages between the children are so significant that the older is clearly taking sexual advantage of the younger.

(Appendix 330A, Manitoba Guidelines on Identifying and Reporting Child Abuse)

Neglect.

The main abstract definition of neglect which this thesis has used can be found in the section of "A child in need of protection". As well, Manitoba's Act defines "Emotional Abuse" which is included in the conceptualization of neglect:

4. "Emotional Abuse" means acts or omissions on the part of the parent or person in whose care a child is, which acts or omissions include but are not restricted to:

(a) any unwillingness or inability to provide appropriate care, control, affection or stimulation for a child;

- (b) making inappropriate demands upon a child;
- (c) exposing a child to frequent family violence tending to produce permanent or long-term emotional disability, including;
 - i) non-organic failure to thrive;
 - ii) developmental retardation;
 - iii) serious anxiety, depression or withdrawal;
 - iv) serious behavioral disturbances.

("Manitoba Guidelines", please see Appendix A & B)

Chronic.

The term "chronic" is meant to denote a general pattern of abusive or neglectful parenting which persists over time.

Operational Definitions

Operational definitions are critical in defining the measures of the attributes of the abstract definitions. In order to determine whether a person possesses or does not possess a certain phenomenon, it is necessary to provide an operational definition which makes it possible to determine whether the concept exists, or does not exist in that person, through the measurement process (Bryman, 1988). Piazza (1980) describes the goal of an operational definition of a concept:

...an operationally defined measure of some attitude...is quite different from the concept used in theoretical statements. What we are really trying to do here is to develop some basis for asserting that we have bridged that gap - that our measure does in fact reflect the concept used in theoretical statements... (p. 591)

The process of measuring the phenomenon should be clearly stated, and the characteristic being studied should be easily observable and measurable (Zuravin, 1991; Bryman, 1988). This operationalized definition of a concept must identify the indicators of the concept. Measures of concepts must also be valid and reliable.

Validity refers to whether the measure really measures the concept, and reliability refers to whether the measure will measure the concept over time (Bryman, 1988). The operational definition of a concept should be based on a sound abstract definition of the phenomenon; "In principle any concept can be operationalized in quantitative ways, but the sociologist should develop his concepts to facilitate this operationalization" (Glaser & Strauss, 1967, p. 3).

The operationalized definitions of child sexual abuse, child physical abuse and child neglect are based on two sources of information from the Winnipeg Child and Family Services Agency: 1) the policies and procedures manual from the Central and Northwest areas, and 2) a form specifying cases of "risk" levels to a child. Both the policies and procedures manual and the form outlining risk levels to a child's safety will be reviewed with the goal of explaining how cases were operationally defined as physically or sexually abusive and neglectful within the agency. These files were then rated by research staff to measure files containing only incidents of abuse or neglect that met these operational requirements.

Emergency situations.

The policies and procedures manual is used as a guideline for staff when investigating abuse or neglect cases. The following sections of the manual describe situations in which children could become involved with the agency. As a general rule, when a child is deprived of basic physical, medical, educational, cognitive/developmental, and emotional needs, the agency supports intervention. Emergency situations are considered to be periods when a child is at risk or has been exposed to some kind of maltreatment. Types of emergency situations can include:

- All complaints of severe physical abuse; All sexual abuse complaints;
- Complaints alleging children under the age of 12 have been left unattended;
- Complaints alleging children and their parents are in need of food or

housing; Allegations that parents are psychotic, behaving in a bizarre manner or acting under the influence of alcohol or drugs; Allegations of bizarre punishment methods (for example, locking a child in a closet); Complaints that children or adolescents are suicidal; Complaints involving abandonment; Complaints from hospital emergency rooms or police agencies; Self-referrals from parents who state they are unable to cope, feel they will hurt or kill their children or desire their young children removed; Families with a previous history of violence or abuse. (Section 310, September, 1988, Child and Family Services Manual, p. 2)

Severity level of an incident.

The form describing situations of low, medium and high risk cases is also used by the Child and Family Services of Winnipeg Northwest area office. These risk categories are used to define general types of child protection situations and set guidelines as to which are more severe, and in consequence, require greater amounts of intervention. The word "risk" describes the severity level of the case. The sexual abuse classifications appear to classify all incidents of sexual abuse as equally severe, however define differences in low, medium and high risk based on contextual issues; who the offender is, access to the child, support and belief in the child's allegations, family resistance to intervention, and accompanying risk factors.

Physical abuse.

The definition of child abuse used by Winnipeg Child and Family Services is based on the intended behaviour of a parent, whether it is as an act of commission or omission:

The intentional non-accidental use of physical force or the intentional non-accidental act of omission on the part of a parent or caretaker interacting with a child aimed at harming, injuring or destroying the child. This

includes physical and sexual abuse and non-organic failure to thrive.
(Central Area Standards' Manual, p. 13)

It also includes the following definition:

"Abuse" means an act or omission by the parent or person in charge of the child, which act or omission results in harm to the child. It includes, but is not necessarily restricted to: physical beating, sexual abuse, and failure to provide reasonable protection for the child from physical harm. (Northwest Child and Family Services Agency Handbook for Social Workers on Physical and Sexual Abuse: 1988, p. 2)

The physical abuse examples base severity on the age of the child, the seriousness of the harm inflicted on a child, as well as the family resistance and accompanying problems. The neglect classifications address the parenting ability of the parent, the age of the child, multiple problems in the family, and the immediate seriousness of the neglect situation. Cases which fall into the low risk classification are generally not considered severe enough to warrant intervention (A. Brownlee, personal communication, 1994).

Specific examples of low, medium and high risk cases of physical abuse are described on the form. An example of physical abuse cases defined as high risk are those in which a child under two years of age is abused physically. The following is an excerpt from the form describing a high risk incident of physical abuse:

...serious abuse of any child (fractures, burns, intentional poisoning, severe multiple bruises, inflicted by an implement, on several body planes...where abuse is ongoing or parents are denying or resistant... (Winnipeg Child and Family Services Agency)

It also includes "physical abuse arising from psychiatric disorder affecting the parent".

Medium risk of physical abuse is defined as moderate abuse of school age children, with the parents who admit to the problem and are willing to obtain help. Included in this category are isolated cases involving a serious incident of a school age child, in which the parents are willing to receive help, and admit to the abuse. Medium risk cases also comprise of minor abuse incidents; slap or visible grab marks on a school age child; the parents deny the problem or resistant to intervention; or the parents have accompanying problems: spousal violence or substance abuse. The low risk category consists of a minor abuse incident of a school age child, in which parents admit to the problem and are receptive to help; or an isolated incident, with a protective nonoffending parent, with no other problems (Winnipeg Child and Family Services Agency).

Sexual abuse.

The operational definition of sexual abuse considers any kind of sexual behaviour between a child and a person in a position of trust of the child to be abusive:

“Sexual Abuse” means any exploitation of a child whether consensual or not for the sexual gratification of a parent or person in charge of a child and includes, but is not necessarily restricted to: sexual molestation, sexual assault, and the exploitation of the child for purposes of pornography or prostitution. (Northwest Child and Family Services Agency Handbook, 1988, p. 2)

When low, medium and high risk cases are compared, support to the victim, denial of the offender, and severity of the assault define the risk level. High risk cases could include those in which the offender is a family member and remains in the home: when the family doesn't believe or support the victim: or when the abuse is multi-offender and multi-victim. Also included in this high risk category are situations in which other risk factors accompany the abuse: spousal

violence, substance abuse, family resistance, or cases in which the non-offending parent is unable to care for the child due to substance abuse problems or a psychiatric disorder. A final example of sexual abuse cases defined as high risk are those in which a known sex offender is in the family and has access to children, with the family resistant to intervention.

Sexual abuse cases defined as medium risk are those in which the offender is a family member, temporarily out of the home, with the non-offending parent supportive of the child. Another situation of medium risk is when the offender is a third party and the family is ambivalent to the assault. The medium risk category also includes cases in which accompanying problems exist with the sexual abuse: substance abuse, inappropriate caretakers; but the family is receptive to interaction. Families with an adolescent offender, receptive to treatment, with no young children in the home, are also classified under medium risk. Families that are reuniting after appropriate treatment has taken place with the offender, victim and non-offending parent, are considered to be medium risk. Sexual abuse classified in the low risk category are those in which the family is believing and supportive of the victim and the offender is out of the home, is a third party, or the offender is an adolescent receiving appropriate treatment and there are no young children in the home.

Neglect.

Neglect is partly defined under the heading of Emotional Abuse:

“Emotional Abuse” means acts or omissions on the part of the parent or the person in charge of a child, which results in permanent or long-term emotional disability including:

- a) non-organic failure to thrive;
- b) developmental retardation;
- c) serious anxiety, depression or withdrawal;

d) serious behavioural disturbances.

Such acts or omission include but are not restricted to;

- a) any unwillingness or inability to provide appropriate care, control, affection or stimulation for a child;
- b) making inappropriate demands upon a child;
- c) exposing a child to frequent family violence.

(Northwest Child and Family Services Agency Handbook, 1988)

Neglect cases identified as high risk are those in which children under five are left unattended; or situations of life-threatening medical problems where a parent will not or does not agree to medical treatment; and substance abuse problems which significantly influence the care of the children, particularly infants or preschool age children. As well, cases of neglect are considered high risk when there is an the existence of severe multiple problems including spouse abuse. Non-organic failure to thrive infants and parents with inadequate intellectual ability to learn child care skills are included in the high risk level.

Medium risk neglect cases can include cases of multiple problem families with school age or older children. Borderline neglect consists of inadequate supervision or child care arrangements, poor child care skills, general family disorganization, a "somewhat controlled" substance abuse problem, and resistance to intervention by parents. Parents with limited intellectual capacity that require numerous supports in order to parent, and parents with inadequate intellectual capacity to learn child care skills, are also included in the medium risk category of neglect. Cases of neglect of low risk are those related to poverty problems, advocacy, and support. This includes substance abuse problems, concerns arising from a lack of knowledge of child care, or organizational problems where parents are motivated to deal with the issues, and appropriate treatment is available. Families with problems on this level of neglect are generally not involved in the

Northwest and Central area offices of the Winnipeg Child and Family Services. (A. Brownlee & T. Owens, personal communication, 1994)

Substantiation.

For the purposes of this research paper, the definition of substantiation of an abusive or neglectful incident is based on the worker's belief that the maltreatment happened. This means that the worker considered all aspects of the situation, examined the evidence of the case, and believes that the incident occurred:

Substantiation does not mean beyond a reasonable doubt. It does not mean that the abuse has been reviewed by the Abuse Committee and they concur with the worker's assessment. It means that given the information received to-date, the worker believes that the abuse/neglect has occurred. (Child and Family Services, Section 314, Nov., 1993, p. 1)

The term "validate" is also used when assessing whether a neglectful or abusive incident occurred. A case is validated if; "...you have been able to obtain evidence that abuse or neglect of the child(ren) exists...based on an assessment of all the worker's information." (p.7, Child and Family Services of Winnipeg, Central Area, Standards' Manual).

Chronic.

For the purposes of this research cases of abuse and neglect defined as chronic are those in which three or more incidents of either abuse or neglect occurred on different dates and have been substantiated. Cases that were opened for more than two years with at least two substantiated incidents of physical abuse, sexual abuse or neglect occurring on different dates are also considered to be chronic.

Instrumentation

Instrumentation is the process by which variables are measured (Sproull, 1988). The purpose of the two forms used to collect the data is to measure specific

variables of families with abuse or neglect problems (Sproull, 1988). The first form is entitled the M.R.E.S. facesheet and provides mainly demographic information on the families with chronic physical abuse, sexual abuse and neglect problems. The second instrument used to measure these families' characteristics is the Manitoba Risk Estimation System (M.R.E.S.) developed by Professors Reid and Sigurdson (1990). (Please refer to Appendix C and D for a copy of the two forms). The unit of measurement and level of measurement for both of the forms used in the data collection process are described.

The M.R.E.S. Facesheet

The M.R.E.S. facesheet includes the following variables: 1) the file number; 2) the date the incident occurred; 3) the date the incident was reported; 4) the location of the child welfare agency office; 5) the gender of the child; 6) the age of the child; 7) the type of incident (physical, sexual or neglect); 8) the makeup of the family of the child; 9) the age of the caregivers 10) the gender of the caregivers; 11) the relationship of the caregivers to the child; 12) the ages of other relevant participants; 13) the gender of other relevant participants; 14) the relationship of other relevant participants to the child; 15) the age of siblings of the child; 16) the gender of siblings of the child; 17) the type of abuse/neglect the siblings of the child experienced; 18) the ages of other offenders; 19) the gender of other offenders; 20) the relationship of other offenders to the child.

The levels of measurement of the variables on the M.R.E.S. facesheet are:

File Number: Nominal (categorical)

Date of Report: Interval (continuous)

Date of Incident: Interval (continuous)

Agency location: Nominal (categorical data)

Case Type: Nominal (categorical data)

Child gender: Nominal (categorical data)

Child age: Ratio (continuous)
Abuse/Neglect type: Nominal (categorical data)
Family Type: Nominal (categorical data)
Adults A and B Relationship to child: Nominal (categorical data)
Adults A and B age: Ratio (continuous)
Adults A and B gender: Nominal (categorical data)
Other children gender: Nominal (categorical data)
Other children age: Ratio (continuous)
Other children type of abuse/neglect: Nominal (categorical data)
Other Relevant participants Relationship to child: Nominal (categorical data)
Other Relevant participants age: Ratio (continuous)
Other relevant participants gender: Nominal (categorical data)
Alleged perpetrator information gender: Nominal (categorical data)
Alleged perpetrator information age: Ratio (continuous)
Alleged perpetrator information relationship to child: Nominal (categorical data)

(Please refer to Appendix C for a copy of the instrument.)

The Manitoba Risk Estimation System

The M.R.E.S. is composed of different variables with three, five or seven point scales. When counting the number of variables on the M.R.E.S., families with two caregivers have 44 (counting severity twice) separate variables scores and families with one caregiver have 25 individual variables scored. As well, in families with two caregivers, there are 11 summary scores on the M.R.E.S. and 6 summary scores for single caregivers. The M.R.E.S. has two final scales rating the risk of reoccurrence and the probable severity of a recurring incident. In families with two caregivers there is a potential total of 57 scales, and there are 33 scales for single caregivers. The unit and level of measurement of the M.R.E.S. is described in the

following section. Unless otherwise specified the levels of measurement on the M.R.E.S. are considered ordinal because the variables are assigned a rank ordering of a property of the variables studied. The values assigned to the scale items on the M.R.E.S. are as follows:

Protective -1 (without Protective)		Not Applicable (with Protective)	0	Not Applicable	Blank
Very Low	1	Low	2	Medium	3
High	4	Very High	5	?	9
Decreasing	1	Constant	3	Increasing	5

1) Access by Perpetrator:

Unit of measurement: Physical distance between child and perpetrator.

Level of measurement: Ordinal: Ranked from inaccessible to accessible.

2) Child Able to Protect Self:

Unit of measurement: Child's ability to see adult's behaviour as wrong and act on this belief; ranked from high to low with respect to the child's ability to refuse, leave and/or tell.

Level of measurement: Ordinal

3) Adequate Protector Present:

Unit of measurement: Ability and willingness of non-offending caregiver to protect child.

Level of measurement: Ordinal

4) Vulnerability Rating:

Level of measurement: Ordinal

Summarizes the vulnerability score of a child.

5) Actual/Potential Severity of Injury

a. Physical Abuse

Unit of measurement: Severity of abuse; intensity of injury to child; degree of injury/intrusion.

Level of measurement: Ordinal

b. Sexual Abuse

Unit of measurement: Intensity of interaction: Based on progression from lesser to greater intrusion.

Level of measurement: Ordinal

c. Neglect

Unit of measurement: Amount of care provided by parent combined with child's capacity to care for herself: Ranking from lesser to greater possibility of lasting harm to child.

Level of measurement: Ordinal

6) More than One Abuse/Neglect Type

Unit of measurement: Number of types of abuse or neglect.

Level of measurement: Ordinal: Absolute zero point exists in counting the number of types of abuse or neglect, however, "very high" is open-ended and consequently there is no equal distances between levels of units of measurement .

7) I. Contribution to Risk

Summarizes the attributes of the current incident contribution to risk to the child's safety.

Level of measurement: Ordinal

8) Severity of Prior Incidents - Adults A and B

a. Physical Abuse

Unit of measurement: Severity of abuse; intensity of injury to child; degree of injury/intrusion.

Level of measurement: Ordinal

b. Sexual Abuse

Unit of measurement: Intensity of interaction: Based on progression from lesser to greater intrusion.

Level of measurement: Ordinal

c. Neglect

Unit of measurement: Amount of care provided by parent combined with child's capacity to care for herself: Ranking from lesser to greater possibility of lasting harm to child.

Level of measurement: Ordinal

9) Recency of Prior Incidents - Adults A and B

Unit of measurement: Months and years (time)

Level of measurement: Ordinal; The units are ratio (time) but the categories are of unequal size and one is open ended.

10) Frequency of Incidents - Lifetime of Adults A and B

Unit of measurement: Individual incidents

Level of measurement: Ordinal; The units could be considered interval except that the categories are of unequal size with one open ended category.

11) Severity Trend - Adults A and B

Unit of measurement: Intensity of injury/harm to the child

Level of measurement: Ordinal

12) Frequency of Trend - Adults A and B

Unit of measurement: Number of incidents

Level of measurement: Ordinal

13) II. Contribution to Risk

Summarizes the contribution of risk to the child's safety based on the abuse/neglect patterns of the caregivers.

Level of measurement: Ordinal

14) Perception of the Incident - Adults A and B

Unit of measurement: Amount of responsibility for the incident accepted by the parent.

Level of measurement: Ordinal

15) Perception of the Child - Adults A and B

Unit of measurement: Parent's knowledge of the particular child's developmental needs; intrinsic worth of child.

Level of measurement: Ordinal

16) Attachment to Child - Adults A and B

Unit of measurement: Mutual positive interaction between adult and the child.

Level of measurement: Ordinal; Ranked from greater (positive) to lesser (negative) quality of relationship

17) Attitude Re: Discipline - Adults A and B

Unit of measurement: Amount of corporal punishment (physical force) used

Level of measurement: Ordinal

18) Parenting Knowledge and Skills - Adults A and B

Unit of measurement: Knowledge of child development and skills to put knowledge into practice.

Level of measurement: Ordinal; Ranked from adequate to inadequate with respect to safeguarding child's physical, emotional and sexual development.

19) III. Contribution to Risk

Level of measurement: Ordinal

Summarizes the understanding of the child contribution to risk to a child's safety.

20) Age - Adults A and B

Unit of measurement: Years of age

Level of measurement: Ordinal; Distance between categories is not equal, open ended category.

21) Substance Abuse - Adults A and B

Unit of measurement: Intensity (frequency, recency and degree) of substance abuse.

Level of measurement: Ordinal

22) Psychopathology/Incapacity - Adults A and B

Unit of measurement: Intensity (degree) of personality disturbance as it affects ability to provide care for a child.

Level of measurement: Ordinal

23) History of Violence - Adults A and B

Unit of measurement: Frequency of use of violence as a mechanism to control others.

Level of measurement: Ordinal

24) Stress - Adults A and B

Unit of measurement: Disruptive effect of stress on everyday functioning.

Unit of measurement: Ordinal

25) IV. Contribution to Risk

Level of measurement: Ordinal

26) Conflict/Support

Unit of measurement: Degree of cooperation in problem solving in crises.

Level of measurement: Ordinal

27) Reinforcement

Unit of measurement: Level of opposition to perpetrator's behaviour.

Level of measurement: Ordinal

28) Siblings

Unit of measurement: Level of conflict within the sibling group and with respect to the community.

Unit of measurement: Ordinal

29) V. Contribution to Risk

Level of measurement: Ordinal

Ranked summary of a family's interaction contribution to risk to a child's safety.

30) Reference Group Values

Unit of measurement: Level of agreement between individual and group of attitudes and beliefs about protecting children from abuse.

Level of measurement: Ordinal

31) Social Isolation

Unit of measurement: Quality and quantity of social supports.

Level of measurement: Ordinal

32) VI. Contribution to Risk

Level of measurement: Ordinal

Ranked summary of the caregivers' relationship to the community contribution to risk to a child's safety.

33) Risk of Reoccurrence Rating

Level of measurement: Ordinal

34) Probable Severity of A Future Occurrence

Level of measurement: Ordinal

(Please refer to Appendix D for a copy of the instrument.)

Non-Experimental Design and Historical Design

The research design used in this thesis is a combination of elements from non-experimental and historical designs. A non-experimental design is used when measures are taken, however a variable is not introduced (Sproull, 1988). Its purpose is to observe or measure a relationship between or among variables, often with the goal of predicting the probability that an event may occur in the future. Correlation statistics are usually used in data analysis with this type of design. This study is also "Ex Post Facto" research as the variables being measured occurred prior to the current study. The purpose of a historical design is similar to that of a nonexperimental design in that it attempts to assess the probable relationships among variables. The main difference in these two design types is that with a historical design, the researcher uses data which has been prerecorded. Consequently, the researcher has no means of defining what data should have originally been collected (Sproull, 1988).

In this thesis research, control over the measurement of specific variables existed, however it was limited to the information recorded in the closed file. The M.R.E.S. facesheet and the M.R.E.S. scales were used to measure specific variables from closed family files. Although this research's data was collected using the three previously mentioned forms, and the researcher had control over what variables were measured from the closed family files, the researcher had no control over the original record keeping by the social workers working with the families.

Sample Selection & Sample Size

The method used for sample selection for this research is a combination of chronological and systematic sampling. This is a nonrandom sampling method in which every nth file is chosen from a list of numbered files (Sproull, 1988). For this research project, every fourth file was pulled from the shelves of closed family

files in three of the area offices. In the fourth area office the files were pulled from the shelf chronologically working backwards from the date of January, 1994. The main reason for using these sampling methods was that it was easier and faster for both the Project staff and the agency file staff, and consequently less expensive to carry out than a simple random sampling method (Sproull, 1988). Based on the assurances of the agency file staff, and the number of files the research project could not use, there is no reason to believe that there is a pattern to the filing system based on types of abuse/neglect cases, severity levels of abuse/neglect incidents, or different file recording methods with the closed files. Chronological, alphabetical, and numerical ordering existed, however there is no obvious element of those orders which would affect the sample of files. The results of this paper reflect the characteristics of the samples chosen for the research. Generalization of results beyond this sample are limited.

Due to time and budget restrictions, a sample size of 116 chronic families was used. This provided a total of 1293 forms for the data analysis.

Data Collection

Setting

Data collection is the process by which information is gathered (Sproull, 1988). Between January of 1994 and September of 1994, staff raters examined closed family files in area offices of the Winnipeg Child and Family Services. This is a mandated child protection agency in the province of Manitoba. The area served by this child protection agency has a population of approximately 650,000 people. There are four branches within the city of Winnipeg: Central area, East area, Northwest area, and Southwest area.

Table 1**Population distribution of family type, age and gender of children in Winnipeg**

Total Population	652,350						
Total families	172,370		Total Male	M % of Pop.	Total Female	F % of Pop.	M & F % of Pop.
Husband-wife %	85.2	Age of Child	317,175	49%	335,180	51%	100%
		Age 0-4	23,850	7.5%	22,690	6.8%	7.1%
Single Parent(M) %	2.3	Age 5-10	22,390	7.1%	21,215	6.3%	6.7%
		Age 11-14	21,190	6.7%	20,325	6.1%	6.4%
Single Parent(F)%	12.5	Age 15-19	22,815	7.1%	21,835	6.5 %	6.8%

(Statistics Canada, A & B, 1991)

Inter-Rater Reliability

Four research assistants (Raters) examined closed files from the Winnipeg Child and Family Services Area Offices. These research assistants were either students in the Bachelor of Social Work programme, or graduates of the same programme. Each of the Raters participated in eight hours of training in the use of the research instruments. Inter-rater reliability is the degree to which two or more judges (raters) rate the same variables in the same way (Sproull, 1988). The purpose of inter-rater reliability is to assess the consistency of agreement when there are two or more raters judging the same variables independently of each other. The following outlines the process of estimating inter-rater reliability as suggested by Sproull (1988):

1. Select or generate an instrument.
2. Randomly select a number of objects or events to be rated.
3. Train the raters.

4. Have rater #1 judge each object or event independently.
5. Have rater #2 judge each object or event independently.
6. Correlate the scores of the two raters.

(Sproull, 1988)

Prior to rating files in the agencies, the raters were asked to independently rate a case example using the M.R.E.S. form (Please refer to Appendix E). Inter-rater reliability ranged from standard deviations of 0 to 1.73 on fifty-six variables, with either five or seven items per scale. On the severity of the current incident variable, inter-rater reliability was recorded at 0.55 standard deviations from the mean. This practice case was administered to the Raters after eight hours of training in the use of the M.R.E.S. form and facesheet. The results are based on only one case and consequently one wrong response greatly affects the value of the corresponding standard deviation. In order to maintain consistency in rating, the raters completed forms on a single file once every three weeks. This ensured consistent scoring by the three raters and maintained a high level of inter-rater reliability. Instrumentation error can occur due to changes made by raters when completing forms. This can be due to numerous reasons, for example worker fatigue. In order to avoid these occurrences, raters were encouraged to take their time when completing forms and to take regular breaks. Based on the initial rating of the case example and the continued group rating of one file every three weeks, inter-rater reliability is deemed acceptable: the cases were rated in a consistent manner based on the research requirements.

The Project Raters examined the closed family files for the information required by the three forms. Files which met the abstract and operationalized definitions of sexual abuse, physical abuse, neglect and chronicity were accepted for the purpose of this study. A record was kept of the file numbers of all closed files not meeting the requirements, and the reason the files were not used. (Sproull,

1988). Following the data collection by the raters, the data was analyzed to assess the relationships among the variables.

Issues of Validity and Reliability

Issues of validity and reliability must be addressed, otherwise results of the research are difficult to interpret. Reliability refers to whether the instrument measures consistently over repeated tests (Anastasi, 1988; Sproull, 1988). Validity refers to whether a test measures what it is supposed to measure: the accuracy of the measurement (Allen & Yen, 1979; Anastasi, 1988; Sproull, 1988).

Validity and Reliability

Validity of an instrument is fundamental to the interpretation of the research results. There are three major types of validity: content validity, criterion related validity and construct validity. Content validity has two types: face validity and logical validity. Face validity is accepted when a person examines a test and believes the test used in research measures the trait it is supposed to measure. It is a superficial assessment of a test's validity (Anastasi, 1988). Logical validity considers the logical design of the items on the test. Criterion-related validity refers to test scores that can be related to a criterion; often for prediction purposes based on the results of the test scores. The criterion used to check the effectiveness of the test should be another independent measure (Anastasi, 1988). This is often expressed as a correlation coefficient between the test (predictor) score and the criterion score. Construct validity refers to the degree to which a test measures the theoretical construct or trait that it was designed to measure (Allen & Yen, 1979; Anastasi, 1988).

The results of the factor analysis provide support for acceptable construct validity of the M.R.E.S.. Many variables loaded onto factors which seemed to reflect a common dimension of the specific variables. Coefficients showed that

variables from different categories on the M.R.E.S. grouped together. A detailed description of the factor analysis is written in the data results section. Based on child welfare literature and studies identifying characteristics of families with abuse or neglect problems, the content validity also appears to be appropriate. Individual personality variables, vulnerability factors of the child, prior history of abuse or neglect, and social interactions are assessed individually by the measure. The operational definitions used to measure the concepts being studied are considered appropriate and support the instruments' reliability. The inter-rater reliability of the raters also provides support for the reliability of the data collection. As well as the instruments used to collect the data, there are several factors within a research project which can affect the validity and reliability of an instrument and the results of the data analysis. These are briefly addressed.

Missing Data

A problem with missing data is that it is difficult to interpret (Tabachnick & Fidell, 1989). It is unclear as to whether missing data is due to a lack of information, poor data collection, or whether it somehow reflects a characteristic of a sample. One result is that the researcher must question whether the missing data differs from the collected data, which must result in cautious interpretations of results. The question must be posed: if that data had not been missing would the results be different or affected? There is no reason to believe that the missing data was anything other than incomplete file recordings, and in many cases variables being studied would not necessarily have been included in a case recording. Although there are methods of transforming missing data for the purposes of data analysis, transformed missing data was not included in this research. Factor analysis deletes rows with missing cell values, greatly reducing the final number used in the sample. Files with not enough information to complete the forms are not

included in the analysis, possibly influencing the final values. A list with the reasons files were not used was kept.

Random Selection of Files

Random sampling is a method in which each element in the population has an equal, known, and nonzero chance of being selected. Its purpose is to yield a sample which has a high probability of being representative of the population from which it was drawn. It is bias free and is expected to control for all variables (Sproull, 1988). The files in this research were not selected randomly; some were chosen based on every fourth, others were chosen simple working back chronologically from the most recently closed. Since this paper did not use the random selection of files, there is a concern that the files selected were not representative of the general population. As a result, one limitation of this method is that every element does not have an equal chance of being drawn once the starting point is selected. Another weakness of this procedure is the potential for bias in the file selection, particularly if there is an order to the closed files. This is considered a secondary assumption in statistical analysis, which means that a violation of this assumption "merely threatens the accuracy of our inferences about those parameters." (Darlington, 1990, p. 110). This research is concerned with identifying characteristics of families with several substantiated incidents of abuse or neglect, and it is thought that this sample is reflective of the files found in the Winnipeg Child and Family Services' offices. The results of this paper will not be generalized to the entire population, and are limited to the sample drawn.

Sufficient Number in Sample

The final data set amounted to close to 1300 rated incidents of abuse or neglect. This was drawn from 116 families. The majority of the incidents recorded were neglect cases, followed by physical abuse cases, and a small sample of families with chronic sexual abuse problems. Due to the large number of neglect

cases recorded, the effects violated assumptions, such as normality and random selection, are lessened (Darlington: 1990). The low numbers of families defined as having chronic sexual abuse problems could be due to two reasons: (1) It is possible that many prior sexual abuse incidents are not reported or disclosed to the child protection workers once the agency becomes involved: many of the incidents of sexual abuse are not the first incidents, consequently many family files which were probably chronic are defined as not chronic, as only one incident is reported or investigated (usually the most recent and severe). As well, a file would often state that the child had been sexually abused by a caregiver in the past, with no specific details as to the number of times the child was abused or the characteristics of the abuse; (2) Once an agency becomes involved in a sexual abuse case, there is a greatly lowered opportunity for the offending caregiver to reoffend; for example, the child is apprehended, the offender charged or removed from the home. In cases of physical abuse or neglect, the perceived severity or risk of reoccurrence of an incident is considered to be at a lower level than that of sexual abuse, and a child often remains in the home, so an opportunity to reoffend remains. As a result, all interpretations of the data analysis with the sexual abuse incidents must be interpreted with caution.

Lack of Control Group or Normal Families

A lack of control or comparison group is a difficult methodological problem with this research. A control group of nonmaltreating families would be useful as results for the three maltreatment types could be compared to nonmaltreating families' results (Kinard, 1994). This would provide information on whether characteristics of families with chronic abuse or neglect problems differ from families with no abuse or neglect problems. However, for the purposes of this research, comparisons between families with neglect problems, families with physical abuse problems and families with sexual abuse problems are made.

Generalizations to the larger population are not made, and for the purposes of this paper a control group of nonmaltreating families is not required.

Reviewing Secondary Sources

There are several problems which arise due to using closed family files. One limitation of collecting data from closed family files is whether the files are representative of families with chronic child abuse and neglect problems. It is possible that many families who abuse or neglect their children on a repeated basis over time are able to avoid detection by a child welfare agency and are not represented in the sample. It also seems possible that the recordings reflect bias of the social workers involved with the cases: the amount of recording and the focus of the recorded information. A lot of contextual, descriptive information surrounding the substantiated incident was not provided. Most files lacked psychosocial assessments of the family members. Although the Child and Family Services Act and the agency guidelines define and give examples of abusive or neglectful behaviour, difficulties in the operationalization of the behaviours continue to exist. In general, the abusive or neglectful behaviour is measured through a process in which the specific incident was (a) witnessed by someone, (b) supported by existing evidence (i.e. medical information that endorse the allegations), (c) a child is able to accurately describe the incident in a manner that the social worker believes it occurred or (d) the social worker witnessed the incident and directly measured the behaviour. Unfortunately, in the closed family files, the measurement of the behaviour is not directly available to the raters, rather they are dependent on the contents of the files to provide them with sufficient information regarding the incident of abuse or neglect. Much information about a family is simply not known. However, the raters included a file in the research if the abusive or neglectful incident had been substantiated by the social worker documenting the

casework and the file information met the definitional criteria required by the research.

Each agency area has some variation with the opening and closing of family files defined as child protection cases. Within areas, workers vary in their own attitudes and beliefs about what constitutes child abuse and neglect, and how individualized cases are substantiated. One of the limitations of using the agency's operationalized definitions, is that it is difficult to define what exactly has been measured during the process of labeling abuse or neglect cases by the agency workers (Hutchison, 1990). Although it is difficult to state with certainty that the reality of workers' individual methods of interventions are consistent with the policies of a child welfare agency, based on the files read and discussions with staff supervisors, there is no evidence to suggest that cases meeting the criterion in this paper were not opened for intervention. However, with regards to milder forms of child neglect, it is evident that those cases are not generally opened, and the criteria becomes a criteria of higher severity. Consequently, it is probable that cases of low severity of child neglect are not opened, particularly cases that are not chronic.

One potential problem of using closed family files can be that some of the data may have been destroyed, missing, distorted or purposefully omitted from recordings (Sproull, 1988). Errors in the files, or changes in file information, would not be recognized by the research assistants as they were not present during the period of involvement with the families (Sproull, 1988). This researcher is conscious of these limitations and does not intend to generalize the findings beyond this sample.

Assumptions of Normality

Tests on the normality of the data were run for all of the variables on the M.R.E.S.. Unfortunately, not one of the variables reported a normal distribution. This can be partly accounted for by the sample selected. Families with chronic

physical abuse, sexual abuse and neglect problems are likely to have negatively skewed distributions towards higher severity of the abuse/neglect incident. It is also likely, that with a high number of neglect cases, the age of the child will be positively skewed toward the younger child because an older child is generally better able to care for him/herself. Type one errors are affected by the distribution of the data, and statistical inference is less robust when the assumptions of normality have been violated (Tabachnick & Fidell, 1989). However, regression analysis is considered robust even if the normality assumption is not met, and if the distribution of Y values around X values don't differ radically from a normal distribution: regression coefficients will not be seriously affected (Berenson, Levine & Rindskopf, 1988). The large sample size lessens the damage created by the violation of this secondary assumption, although it remains necessary to be aware that any conclusions based on the data analysis must be interpreted with caution (Darlington, 1990).

Assumptions of Linearity

This assumes that there is a straight line relationship between variables (Tabachnick & Fidell, 1989). This is considered a primary assumption as a violation of this requirement would make the results of the data analysis meaningless or very difficult to interpret (Darlington, 1990). Significance tests and solutions are based on the assumption of a general linear model. Based on a visual check of the scatterplots graphed by a multiple regression analysis, the assumption of linearity holds.

Assumptions of Homoscedasticity

Homoscedastic data means that the variability in scores for one variable is the same at all values for the other variable (Tabachnick & Fidell, 1989). There should be a uniformity in spread about the regression line (Berenson, Levine & Rindskopf, 1988). Again, if this assumption is not met, the interpretations of the

data analysis must be made cautiously. This assumption was violated in this research, however, due to the robustness of the statistical analysis used, it is believed that the interpretability of the results will not be greatly affected.

Assumptions of Independence

Independence assumes that two variable are not associated. This is important when attempting to discover main effects of variables. The outcome of different interactions are tested independently and should provide no suggestion as to what the outcome of other interactions would be. In these circumstances, "Causality can be unambiguously attributed to various main effects and interactions." (Tabachnik & Fidell, 1989, p. 10). When assumptions about independence are violated, as in this research, variables are correlated and have overlapping variance. Different approaches to multiple regression analysis assist with analyzing overlapping variance. This research does not make conclusions about causal relationships, nor does it provide a prediction equation of the data results. Consequently, violations of this assumption will not drastically affect the interpretations of the results.

Data Analytic Procedures

Introduction

There are two main goals of the statistical analysis in this thesis. The first goal is to discover whether underlying dimensions exist between the variables. The second goal is to examine whether differences exist between families with chronic physical abuse, sexual abuse and neglect problems and to determine the significance of the differences. The results of the data analysis are the basis on which the hypotheses are not rejected or not accepted. Frequency counts, t tests and factor analysis are the statistical procedures used in this research. A brief explanation of

the use of continuous data analytic techniques with ordinal level data is reviewed followed by a synopsis of factor analysis.

Using Continuous Statistical Methods versus Discrete

This section of the paper provides an explanation of the use of continuous data analysis techniques with ordinal level data. Several methods used to assign continuous level data analysis techniques to categorical data are briefly summarized. The assumptions about certain qualities of this paper's data are also explained and used to support the use of continuous statistical analysis methods with the data.

A key aspect of using quantitative research methods is that it allows statistical analysis of the data which would not be possible if the researcher were working with qualitative data. The use of continuous data analysis techniques allows for more in depth analysis of the data:

Given the ubiquity of qualitative data, one can understand the long and persistent interest in its quantification. If one could somehow develop a method for assigning "good" numerical values to the data categories, then the data would be quantified and would be susceptible to more meaningful analysis. (Young, 1981: p. 357).

In an abstract definition of a concept, words are symbols representing a phenomenon. The operational definition describes the method of identifying and distinguishing between phenomena. One method of representing the phenomenon is with a numerical symbol. Measurement is defined as; "...the assigning of numbers to individuals in a systematic way as a means of representing properties of the individuals. Numbers are assigned to the individuals according to carefully prescribed, repeatable procedure." (Allen & Yen, 1979: p. 2). In quantitative research, the collection and coding of data transforms observations into numbers through a measurement process (Gephart, 1988). The number assigned to a phenomenon is a method of communicating quantities of attributes. The rules are

the means by which the communication is interpreted (Phillips, 1971). The scales used in this research are meant to reflect the properties of phenomena measured. The numbers assigned from the scales represent the attributes of the phenomena (Allen & Yen, 1979). "The scale developer identifies this transformation by using a scaling model, which is a symbolic representation of the relationship of the property being scaled and a set of observations." (Allen & Yen, 1979, p. 181). Ordinal level data has a rank ordering of its categories, and the difference between these categories is in magnitude, not in equal distance between categories (Gephart, 1988; Sproull, 1988); "A set of scores has equal intervals if any given difference between scores always represents the same amount of difference in the trait being measured." (Allen & Yen, 1979: p. 168).

Parametric strategy is a means for transforming nominal or ordinal data into interval-level measures (Gephart, 1988). The parametric strategy allows the use of interval level or ratio level statistical techniques with nominal or ordinal data through data transformation; "The parametric strategy assumes one can treat the ordinal scores as representing an underlying continuous variable with equal distance between categories by simply assigning the values (1-10) to the ranks as if they are appropriate interval measures." (Gephart, 1988, p. 33).

Variables considered numerical (continuous) can be treated as nominal or ordinal, depending on the categories used to define the level of measurement (Van de Geer, 1993). Similarly, a variable thought to be nominal can be treated as ordinal or numerical:

"Conversely, a variable based on voting behavior (its categories are political parties) appears nominal. However, a researcher may have the point of view that political parties have an a priori order from "left" to "right", so that the variable must be treated as ordinal. Moreover, the researcher may have found on the basis of previous research that political parties have numerical

labels that should be respected, not only with regard to their order, but also with regard to differences between them. The variable will then be treated as numerical.” (Van de Geer, 1993, p. 3)

Van de Geer believes it is up to the researcher to decide at what level of measurement the variable will be treated.

F.W. Young argues for using quantitative analysis procedures with qualitative data (1981). The technique this author suggests for quantifying qualitative data is called “optimal scaling” which is based on the use of the Least Squares approach to algorithm construction (Young, 1981). The author believes that all observations are categorical, “regardless of the variables’ measurement characteristics” (Young, 1981).

“If we can obtain a least squares description of numerical data we can obtain a least squares description of qualitative data. All we have to do is alternate the numerical least squares procedure with the OS procedure which is suited to the measurement characteristics of the data being analyzed.” (Young, 1981: p. 360)

Optimal scaling is one method of transforming categorical data in order to proceed with methods of data analysis that are beyond the capabilities of traditional analysis of discrete variables. Optimal scaling can use variables with different measurement levels or variables where nonlinearity in the relationships is suspected (SPSS, 1990). It is a procedure which can be used as well as, or instead of, loglinear models. In optimal scaling, scores are assigned to the categories of the row and column (associated) variables with the intent of explaining as much of the association as possible (SPSS, 1990). Each variable is assigned one or more sets of scores.

Unlike the original values of the nominal or ordinal variables in the analysis, these scores have metric properties, so these techniques are often described

as a form of quantification of qualitative data,...The category quantifications of each variable can be plotted, and their juxtaposition in the same plot is useful for revealing patterns of association among the variables. (SPSS, 1990, p. B-24)

There are several optimal scaling procedures for several variables at differing levels of measurement (SPSS, 1990). Original category values can be replaced with optimal scores and multivariate analysis performed. Because of these optimal scores, interval level analysis can be performed (SPSS, 1990). The level of measurement of a variable can be changed in optimal scaling.

Since we are applying the model estimation procedure to the optimally scaled data, we are not violating the measurement assumptions of the raw data, whatever they might be. We are not even using the raw data in the model estimation phase, thus we do not need to know its measurement characteristics. Equally important, we do not have to think up a new way of trying to fit the model to qualitative data, we simply use existing procedures for fitting it to quantitative data. (Young, 1981: p. 361)

Optimal quantification enhances those properties of the data one wants to bring into focus. It will linearize data previously shown to be nonlinear and maximizes correlation between variables (Van de Geer, 1993). Van de Geer shows that through a technique of optimal quantification, relations between variables may be improved. Optimal quantification adjusts to the relations of the variables:

As an example, take age again. Its relations with other variables are not necessarily linear. If the relations were linear, an optimal quantification of age classes would agree with the class midpoints. But if a relations were more like a logarithmic one, the optimal quantification should rather follow some logarithmic function of the class midpoints. It also may happen that the relations is quadratic, so that an optimal quantification would be largest

for the middle age groups and smaller both for young age and old age. Obviously, a quantification can be said to be optimal only to the extent that a variable is related to some other variables: In a different context, with other variables, the optimal quantification of a given variable will change. (Van de Geer, 1993, p. 6)

Thurstones' absolute scaling method hypothesizes that the continuous trait being measured by a test has a normal distribution in some specified population. The test must be measuring a phenomenon that has equal intervals. He also hypothesizes that the raw scores are monotonically related to the phenomena's values; an increase in the raw score reflects an increase in the trait values (Allen & Yen, 1979). If the hypotheses are true, and the raw scores are normalized, the normalized scores have equal intervals. In order to attain interval level measurement, equal distance between the units of measurement should reflect the differences in amount of the variable being measured. Using Thurstone's absolute-scaling model, if there is a linear plot of the data results, then the model fits the data, and the hypotheses should be considered acceptable: the trait being scaled has a normal distribution in certain populations, and that the observed test scores are monotonically related to the trait (Allen & Yen, 1979: p. 181).

If the variable requires a transformation that follows a straight line, it can be treated as continuous (Van de Geer, 1993, p. 7). This process involves two steps:

First, we find scale values of items separately within each group, by converting the percentage passing each item into normal curve -distances, or z values. Second, we translate all these scale values into corresponding values for one of the groups, chosen as a standard or reference group....What is required is a set of common, anchor items administered to two or more groups and scaled within each group. (Anastasi, 1988, p. 206)

Another method of obtaining interval scales is to ask a person to assign a number to a phenomenon or differences between phenomena according to some specified property of the phenomenon. The assumption is that people are skilled enough to make interval judgments. Bisection is a yet another technique and seems to be an easier process for people: "...people are given two stimuli and are asked to choose or adjust a third one to bisect or evenly divide the distance between the first two stimuli." (Allen & Yen, 1979: p. 188).

In discussing a study done by Labovitz (1970), Gephart (1988) states that the use of parametric procedures with nonparametric data does not necessarily ruin results: "The study generally concludes that the parametric strategy does not distort correlation values or their interpretability, hence ordinal variables could be used with r_P and, implicitly, multiple R ." (Gephart, 1988, p. 35). Gephart (1988) examined the effects of using different levels of measurement (ordinal and interval) and compared the resulting statistics. This study found that with imprecise measurement, distortion will result. However, the magnitude of the distortion is not always great and the resulting value can be close to the true value. An ambiguous assessment of the use of continuous data analysis techniques results:

Any "imperfect" measurement appears to induce some distortion, although the greater the imprecision, the greater the distortion. Thus, if measurement is imprecise, then the use of the parametric strategy may lead to incorrect or inaccurate results and findings. The problem, of course, is that one does not know the true values of phenomena, and hence one does not know how precise one's measures are. The measures used are typically the best there are, and if true values were knowable without measures, obviously there would be no point to engage in measurement. Thus the meaning of good results is unclear, since it is difficult to determine if one's results are

accurate, or if they are merely artifacts of the measurement process and the practical decisions and knowledge of actors. (Gephart, 1988, p. 38)

Some researchers believe that the instruments and the people using them are not necessarily consistent nor exact in the measurement process. They consequently encourage the use of ordinal statistics due to the loss of information in the measuring process and recording of distorted values (Gephart, 1988). It is also suggested that the researcher analyze the data using several different methods and compare the results. If the results are similar, the differences in the methods of analyzing the data are not a great concern. If however, the results are not the same, an understanding of the different conclusions should be searched (Van de Geer, 1993).

Words and numbers are different symbols used to represent a phenomenon. If a clear description delineates membership requirements and exclusionary criteria of the original phenomenon, part of the operational definition is created. This operational definition should explain how the phenomenon is observed and/or measured with descriptive symbols (better, bigger, greater than etc.) or through numerical units of measurement. All measurement units are symbols used to represent a phenomenon. The scales from the M.R.E.S. are an endeavor to reflect the different operationalized definitions of the variables.

Accuracy of any measuring device is limited in real life since it is impossible to use anything other than a discrete level measure, however variables remain continuous (Hoel, 1960). It is accepted that the people rating the families with chronic abuse and neglect problems can distinguish between very high and very low, and are able to estimate a middle point (medium). Between medium and the two extremes, people are also able to directly estimate the mid points: low and high. If researchers are able to distinguish between the highest, middle and lowest values and they are thought to be spaced equally apart from each other, the use of

numerical or continuous statistical analysis techniques is warranted. It is accepted that there is a true value for the phenomenon being measured in this research. It is also believed that the scores measuring the phenomenon are theoretically normally distributed. The normal distribution is a theoretical distribution in which approximately 68 percent of scores in the area under the normal curve lie within one standard deviation (in either direction) from the mean. Similarly, approximately 95 percent of scores lie within two standard deviations (in either direction) from the mean (Hoel, 1960; Sproull, 1988). A small standard deviation would reflect a low scatter of scores about a theoretical mean. Although the measurement is not perfect, based on the inter-rater reliability scores, the standard deviations around the means are small and thought to reflect the phenomena being studied. The attempt in assigning variables a value, is to score the phenomenon as close to its theoretical mean as possible, minimizing the variance of the scores about the mean. The theoretical normal distribution is the basis on which statistical probability is made, and allows for easier interpretations about scores (Sproull, 1988). If certain criteria about the data is met, the use of continuous data analysis techniques with ordinal level data is considered acceptable: "Opinions differ regarding application of regression to rank order data. However, since rank order data produce rectangular distributions with neither skewness nor outliers, the application may be considered justified." (Tabachnick & Fidell, p. 190). It is a combination of bisection and assigning numbers that are used in this paper to proceed with continuous levels of measurement to analyze the values recorded for the scales measuring variables on the M.R.E.S.. It is critical to note that all numerical values are representations of the original phenomena being studied. Information about the phenomenon is likely to be lost at each step of the transformation process. Awareness of the impact of this lost information on the results of the data analysis is critical when interpreting the results.

Data Analysis Techniques

Introduction.

Multivariate research uses more than two variables in its analysis. It takes on many forms including predicting relationships using several variables as predictors and reducing hundreds of variables into a smaller number of factors (Sproull, 1988). Three statistical analysis methods are used in this research thesis: frequency counts, t test and factor analysis. Frequency counts provide a descriptive overview of the samples. t tests assess whether the three maltreatment groups are statistically different based on certain variables. Factor analysis is performed to explore whether patterns of variable covariance exist within the data. These patterns could reflect underlying dimensions of the different types of abuse/neglect. A summary of factor analysis is described in the following section.

Factor analysis.

In order to determine whether a latent structure(s) exist within the data, factor analysis was performed.

The specific goals of PCA or FA are to summarize patterns of correlations among observed variables, to reduce a large number of observed variables to a smaller number of factors, to provide an operational definition (a regression equation) for an underlying process by using observed variables, or to test a theory about the nature of underlying processes. (Tabachnick & Fidell, 1989: p. 598)

Factor analysis is a statistical method used for both exploratory and confirmatory purposes. Exploratory factor analysis is used in this research.

Most applications of PCA or FA are exploratory in nature; FA is used as a tool for reducing the number of variables or examining patterns of correlations among variables without a serious intent to test theory. Under these circumstances, both the theoretical and the practical limitations to FA

are relaxed in favor of a frank exploration of the data. Decisions about number of factors and rotational scheme are based on pragmatic rather than theoretical criteria. (Tabachnick & Fidell, 1989, p. 601)

In factor analysis, the focus of analysis is the variance in the variables. Only shared variance of the variables is analyzed: “attempts are made to estimate and eliminate variance due to error and variance that is unique to each variable” (Tabachnick & Fidell, 1989, p. 600). Each factor is a relatively distinct area which is independent from all other factors. When variables “load” onto factors they are demonstrating a quantitative association between the variable and the factor and a relationship between the variables, which is specific to the factor, and separate from other combinations of variables loading onto other factors (Gorsuch, 1983; Tabachnick & Fidell, 1989). One of its goals is to identify patterns of variables which “load” onto individual factors in an attempt to discover the latent structure of the factor: the common link between the variables and theorize on the underlying processes creating the correlations between variables (Tabachnick & Fidell, 1989). “Usually the aim is to summarize the interrelationships among the variables in a concise but accurate manner as an aid in conceptualization.” (Gorsuch, 1983, p. 2). This method of analysis allows the researcher to explore concepts underlying variable groupings (Gorsuch, 1983, Tabachnick & Fidell, 1989). Correlation between variables is believed to be due to a latent structure, not that one variable is a direct cause of the other (Kim & Mueller, 1978). Large numbers of variables can be reduced to a smaller number of items while still accounting for a large percentage of variance within the data. “Factor analysis allows one to analyze numerous variables at a time, to unravel relationships among variables correlated in highly complex ways, to report gradated relationships of variables to factors, and to stress parsimonious solutions.” (Gorsuch, 1983, p. 9). Factor analysis can result in factors, however, that does not necessarily mean that a latent structure exists.

Conversely, a latent structure may exist, however due to various problems, i.e. measurement tool used, variables selected, a factor may not be created through factor analysis.

In order to examine patterns of variables' loading onto factors, factors are rotated prior to assessing the variables associations. The purpose of the rotation is to maximize high correlations between variables and factors, and minimize low variable and factor correlations. The latent structure of a factor is discernible by correlation. Rotations are used to better align the directions of the factors with the original variables so that the factors may be more interpretable. Highly correlated clusters of variables define the rotated factors (SAS Institute Inc., 1994, JMP Statistics & Graphics Guide). Orthogonal rotation is used when factors are uncorrelated (Gorsuch, 1983, Tabachnick & Fidell, 1989). In a geometric representation, factors (which serve as axes) are drawn at 90° angles from each other. Variables are then plotted, ideally clustering towards the end of specific axes on the graph. The factor should be as close as possible to the center of a cluster of variables (Gorsuch, 1983). Variables are vectors which are far from the point of origin on the factor's axis when highly correlated with a factor. Each variable should be far out on one axis and near the point of origin on the other axes for a simple structure to appear (Tabachnick & Fidell, 1989). The individual variables should also lie close to one axis, and the clusters of variables should be 90° away from the other clusters. Clustering of specific variables around the end points of specific factors show that the factors are defined. Rotation is an attempt to identify and make interpretable the minimum number of factors needed to represent the latent structures of correlated variables (Tabachnick & Fidell, 1989).

Oblique rotation is used when the variables are highly correlated. Factors are not at right angles (Gorsuch, 1983; Tabachnick & Fidell, 1989). Axes in oblique rotations may be very near to each other, which causes more difficulty in

interpreting the results. Resulting correlations from an oblique rotation represent the individual contribution of each factor to the variance of each variable, and the variance the factor shares with other factors (Tabachnick & Fidell, 1989). Generally, orthogonal rotations are easier to interpret than oblique rotations, but the researcher must believe that the latent structures of the correlated variables are unrelated (Tabachnick & Fidell, 1989).

The JMP statistical computer package rotates factors by the Varimax method. This procedure maximizes the variance of factor loadings by maximizing and minimizing high and low loadings for each factor (SAS Institute Inc., 1994, JMP Statistics and Graphics Guide, Tabachnick & Fidell, 1989). Interpretation of factors can be more simple as it enhances correlation between specific variables and factors. Problems arising from the phenomenon of variables loading onto one general factor is also minimized through this technique. Orthogonal rotation is used in this data analysis as it is believed that the factors are uncorrelated. This decision is supported by the results as simple structure was evident.

A few definitions of terms will be reviewed for reference during the discussion of the results of factor analysis of the data. The magnitude of a factor, and the amount of variance explained by the factor are represented by eigenvalues (Tabachnick & Fidell, 1989). They sum to the number of variables (JMP, p. 314, Kim & Mueller, 1978). Eigenvectors correspond to the eigenvalues and are variable coefficients. If pairs of coefficient loadings of individual factors are multiplied and added to the same pair's product from the other factor loadings, the correlation coefficient of the two variables results.

The communality value of a variable is the proportion of its variance that can be accounted for by the factors (Gorsuch, 1983, p. 29). It is the sum of squared loadings for a variable across factors (Darlington, 1990; Kim & Mueller, 1978; Tabachnick & Fidell, 1989). A communality recorded at 0.75 can be interpreted to

mean that 75% of the variance of the variable is explained by the factors under examination (Darlington, 1990). In order to calculate the value of the variable's variance not explained by the factors, the communality is subtracted by the number one (Darlington, 1990). Consequently, if a variable recorded a communality of 0.75, the variance not explained by the factors, or uniqueness of the variable's variance is 25%. It is also possible to sum the communalities of the variables explained by the factors to calculate the value of the total variance explained by the factors. If there were ten variables, and the summed communalities added to a value of six, the total communality would equal six, and the total uniqueness would equal four. Thus, in this example, 60% of the variance in the ten variables is accounted for by the factors and 40% of the variance in all the variables is not accounted for by the factors.

If the variable loads on one and only one factor, then the interpretation is simplified, one would interpret the central thrust of the variable as being related to the factor. The communalities of the variables reflect the accuracy of measurement and the strength of the phenomena, issues related to the replicability of statistical analysis (Gorsuch, 1983). When communalities are high, and the truncated factor model is used, the orthogonally rotated model is considered appropriate; an indication that the data fits the model. When using the common factor model, high communalities correspond with low unique factor weights. Theoretical factors have zero correlations in the population, but spurious correlations in a sample (Gorsuch, 1983). When the unique weights are low and the communalities are high, chance correlations are multiplied by the unique weights and will be low. A reduction of spurious correlations among the variables improves the replicability. A common factor has several variables in common with other factors. It is consequently difficult to calculate the variable from these factors alone as different potential sources could influence the variables. Factor loadings become more stable and

replicable as the communalities increase. High communalities occur only when both the reliabilities are high and the variables correlate with some of the other variables in the analysis (Gorsuch, 1983). Variables with high communality values are considered good results.

There are several ways of deciding what number of factors is appropriate to retain for the study (Tabachnick & Fidell, 1989, Gorsuch, 1983). Unambiguous loadings, the magnitude of the eigenvalue and the magnitude of the variable loading are the three main criterion for retaining factors. One method is to include factors whose eigenvalues are greater in value or equal to one (≥ 1.0) (Gorsuch, 1983, p. 161). Another method estimates a range for the number of factors which should be retained in the research. The number of variables is divided by five (5) or three (3) and the resulting figure is a guideline as to how many factors should be included (Gorsuch, 1983, p. 163, Tabachnick & Fidell, p. 635). A third option, and one that can be used in conjunction with the other two is to use a scree test to determine the number of factors to keep (Gorsuch, 1983, p.167-168, Tabachnick & Fidell, 1989, p. 635) Eigenvalues are plotted on a graph and when a dramatic break between plots is evident, the preceding factors are included and the following factors are dropped. The stronger factors do not fall on the plotted straight line as the weaker or trivial factors (Gorsuch, 1983). It is also possible to extract many factors, rotate the factors, note the number of trivial factors and discard them. Trivial factors are factors which have no variables that load onto them alone, or factors that do not have two or three loadings above a certain cutoff value, often 0.3. If only two variables load strongly with one factor and only one factor, then the factor may be interpretable. However with only two variables, interpretation of factors should always be cautious (Tabachnick & Fidell, 1989, p. 636).

Factor selection and interpretation should be viewed as an initial step into forming hypotheses for future studies. There are numerous methods of interpreting

and evaluating solutions of factor analysis. Both internal and external criteria need to be assessed. Explaining the results of a factor analysis should be guided by the "ease of interpretation" (Gorsuch, 1983; p. 197). A simple structure is the key issue in determining which factors are interpretable. Criteria for a simple structure are:

1. Each variable should have at least one zero loading.
2. Each Factor should have a set of linearly independent variables whose factor loadings are zero.
3. For every pair of factors, there should be several variables whose loadings are zero for one factor but not for the other.
4. For every pair of factors, a large proportion of the variables should have zero loadings on both factors whenever more than about four factors are extracted.
5. For every pair of factors, there should be only a small number of variables with non zero loadings on both. (Thurstone, as cited in Gorsuch, 1983, p. 178-179)

A simple structure is also evident when the criterion values computed across the iteration sequence quickly converge (Gorsuch, 1983, p. 199). The iteration stops when rotation no longer influence the factor loadings (Kaiser, as cited in Gorsuch, 1983, p. 199). Generally, a high percent of the variance in the variables should be located in the first few factors (Tabachnick & Fidell, 1989). There should be variable loadings below 0.2 and loadings above 0.3. Variable loadings up to 0.1 are assumed to be random variations from zero. The absolute values of the loadings should be examined: signs of the values can be positive or negative. Numerous minor, positive correlations in the matrix suggest that it would be difficult to actually measure the factors while keeping them uncorrelated even though an uncorrelated model is being used. It is important that only the factors that are well defined be interpreted. Those are factors that have variables that load only onto

them and not onto other factors, with loadings above 0.3. (Gorsuch, 1983). Although simple structure is an ideal result of factor analysis, it is seldom the case and consequently, the researcher works with what data and results are available. Interpretations of the factor analyses should always be viewed cautiously.

The researcher must decide when a borderline loading should be considered statistically significant or salient. Statistical significance has been defined as those variables that load onto factors at a +/- 0.4 level or higher. Due to the simplistic metric of the instrument, larger magnitudes of loadings are required in this research. The factor structure should be examined to determine which variables correlate high (a salient loading) with the factor and which correlate low (Gorsuch, 1989). Usually, when a few variables are highly correlated with one factor and not with other factors, interpretability of a factor analysis is easiest (Tabachnick & Fidell, 1989). The complexity of the variables should be examined. When a variable loads onto only one factor, it is said to be a "pure variable". When a variable correlates with several factors, it is considered to be a "complex" variable (Tabachnick & Fidell, 1989). The researcher should examine the pattern of loadings for variables with high loadings on several factors (Gorsuch, 1989).

Cluster analysis can also be used as an aid to interpreting factors. The purpose of a cluster analysis of variables is to group together those variables that are most alike. This grouping is helpful in the interpretation of factors as it brings together variables of a similar composition (Gorsuch, 1983). Through the clustering procedure, variables are identified that are salient on one and only one factor. These variables then form a cluster that is identified with the name of the factor. If there is a clear simple structure in the data, then it would be expected that there would be as many of these clusters as there are factors. Additional clusters of variables can be formed from variables that have salient loadings on the same set of factors. All of the variables with the same pattern of salient loadings are put into an

appropriately named cluster. This procedure would then generate several clusters in addition to those that define the factors (Gorsuch, 1983).

Another helpful criterion used to interpret and evaluate the results of the factor analysis is to compare the data results with visual rotation. The ease of measurement of the factors is another criteria used to evaluate the solution. The sum of the salient variables loading onto specific factors should provide the value of the factor.

In the area of external criteria, objective evidence should exist which supports solutions. This can be through previous research, or with factors that appear under a wide variety of conditions. Those are more desirable than factors that appear only under highly specialized conditions. The results should also be replicable across individuals from the same population. The same replication should be found across variables, although this criterion is more difficult to apply (Gorsuch, 1983, p. 199). "Factor the data by several different analytical procedures and hold sacred only those factors that appear across all the procedures used." (Gorsuch, 1983, p. 330).

Primary criteria influencing the replicability of statistical conclusions are: accuracy of measurement, the strength of the phenomena, the number of variables and the number of individuals on which the statistic is based. As the number of random variables increases, the loadings are generally higher because of capitalization upon chance. They do not, however replicate any better than low loadings unless the replication capitalizes on chance. Adding variables that correlate poorly with the other variables (variables with low communalities) does not increase the replicability of the factor, but may actually decrease the possibility of replicating the results. Having spurious correlations within a data set is usual, however having the same variables showing the same spurious correlations in different samples is unusual. Variables without a prior history of good reliability

estimates and good correlations with other variables in the analysis are not desired in a factor analysis. It is generally difficult to replicate factors with fewer than five or six salient variables per factor (Gorsuch, p. 332). As a set of variables is expanded, reduced, or has some variables replaced, the factors underlying the resulting data matrix may be the same.

Whether or not a given factor appears in a particular study is a direct function of the selection of variables. Any factor appearing in any analysis can have a sufficient number of its identifying variables deleted so that it does not occur in the next analysis, and not all of its salient variables need be deleted for it to be too insignificant or trivial to be extracted in an exploratory study.

Increasing the number of variables for a given factor may also influence the results. With a heavy sampling of variables from a narrow area, a factor that previously appeared as a single factor may be split into several factors with the desired factor appearing only in higher-order analyses. The factor pattern for a variable would then appear to be considerably different from that of a prior study. (Gorsuch, 1983, p. 332)

When variables are added or dropped from the analysis, the factors' positions will be influenced. Two areas will have an impact upon the level of change in the rotation process:

- 1) the relationship of the variable that is dropped or added to the other variables in the total set; and 2) the impact of that variable in the total set as measured by the percentage of variance it contributes to the solution.

(Gorsuch, 1983, p.340).

Factors are created by a clustering of variables when results are based on the criteria of simple structure. Unless the variables are crucial to the factors position, it is unlikely that the deletion or addition of factors will greatly change the position of a

factor. If the variable is critical to the factors position however, then a major change could occur (Gorsuch, 1983).

One argument against the use of factor analysis is that factors could be created by selecting appropriate variables.

Although it is true that factors can be drastically changed through the systematic creation of new variables in appropriate positions, theoretically the general statement is not completely true. Uncorrelated variables always remain uncorrelated and highly correlated ones remain highly correlated. (Gorsuch, 1983, p. 341)

In replicating factors through selections of variables or individuals, "...too few variables, variables with low communalities, or too few individuals will guarantee that the results will look different." (Gorsuch, 1983, p. 348). Correlation coefficients are less reliable generally when estimated from small samples. A sample size of fifty is considered to be very poor. However, if there are a sufficient number of cases, which outnumber factors, a smaller sample size may be used: "If there are strong, reliable correlations and a few, distinct factors, a sample size of 50 may even be adequate, as long as there are notably more cases than factors." (Tabachnick & Fidell, 1989, p. 603).

Sample size, missing data, assumptions of normality, linearity and outliers among cases all affect the outcome of a factor analysis. Generally, if the assumptions are not met, the results of the factor analysis are degraded. However, if the assumption of normality is not met, the results of the factor analysis are not necessarily greatly affected (Tabachnick & Fidell, 1989). Correlation coefficients with smaller sample sizes are generally less reliable. The results of the sexual abuse cases and those with family type 4 must be regarded with wariness. The process of factor analysis greatly reduces the final sample size if there are missing values in cells. Some of the variables used in the factor analysis have a high missing value

content and have not been included. Others have been left in the analysis, however the result is a smaller sample size. The generalizability of the results is consequently limited.

Data Results

A summary of the results of the data analysis follows. Descriptive and inferential statistics are reported. The descriptive statistics covers the chronic family files and are divided into the three abuse/neglect categories: Sexual abuse cases, physical abuse cases, and neglect cases. The data has also been subdivided into family types one to four. A table with results of the t tests identifies which variables were significantly different between the three maltreatment types. The information on the inferential statistics reports the results of the factor analysis. Tables and figures of the results of the data analysis are also inserted within the text in order to simplify the dissemination of numbers. For a complete comparison of the abuse/neglect cases and the family types on all the variables, please refer to appendices F, G, H, and I.

Descriptive Statistics

Chronic Data

Figure one shows that the results of the majority of cases in this sample are neglect cases.

Figure 1

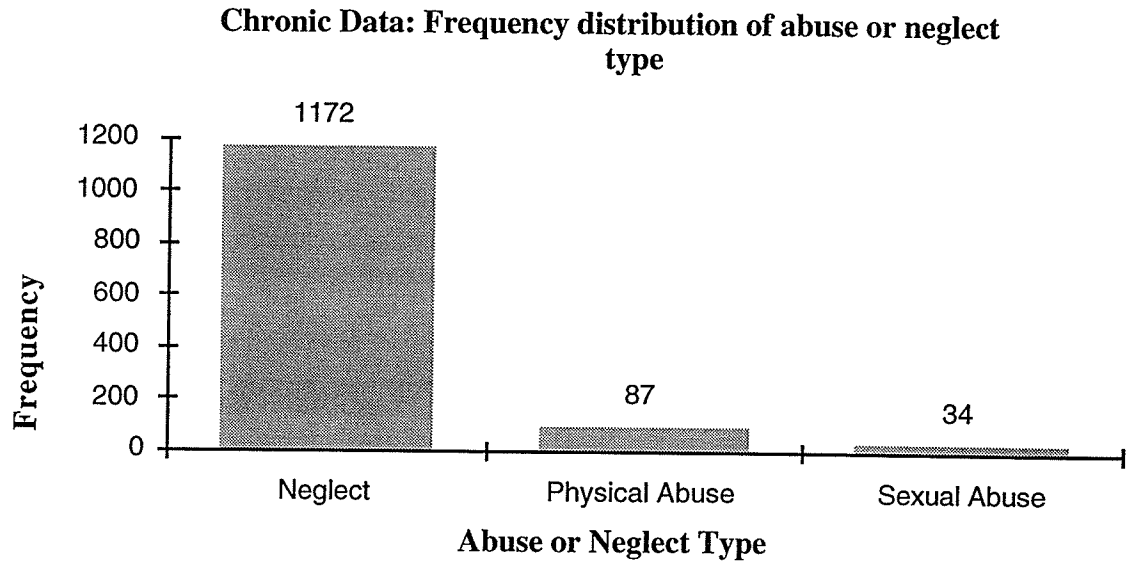


Table 2

Total Chronic Data			% of Sample
Sample size:		116	
# of Forms:		1293	
Abuse/Neglect Type:			
Neglect:		1172	90%
Physical Abuse:		87	7%
Sexual Abuse:		34	3%
Children's Age:	Range	.04-17	
	Mean	4	
Children's Gender:	Male		46%
	Female		54%

The number of substantiated cases for chronic abuse and neglect instances per family range from 2 to 40 in frequency. Using this latter figure as an example,

this means that there are at least 40 incidents of abuse or neglect within one family. Sixteen of the files have 20 or more substantiated incidents of abuse or neglect, 26 have between 10 and 20 substantiated incidents of abuse or neglect, and 84 have fewer than 10 substantiated incidents of abuse or neglect.

The gender of the children was slightly higher for female children than for males for the total data sample, but differed markedly for the neglect, physical abuse and sexual abuse groups.

Figure 2

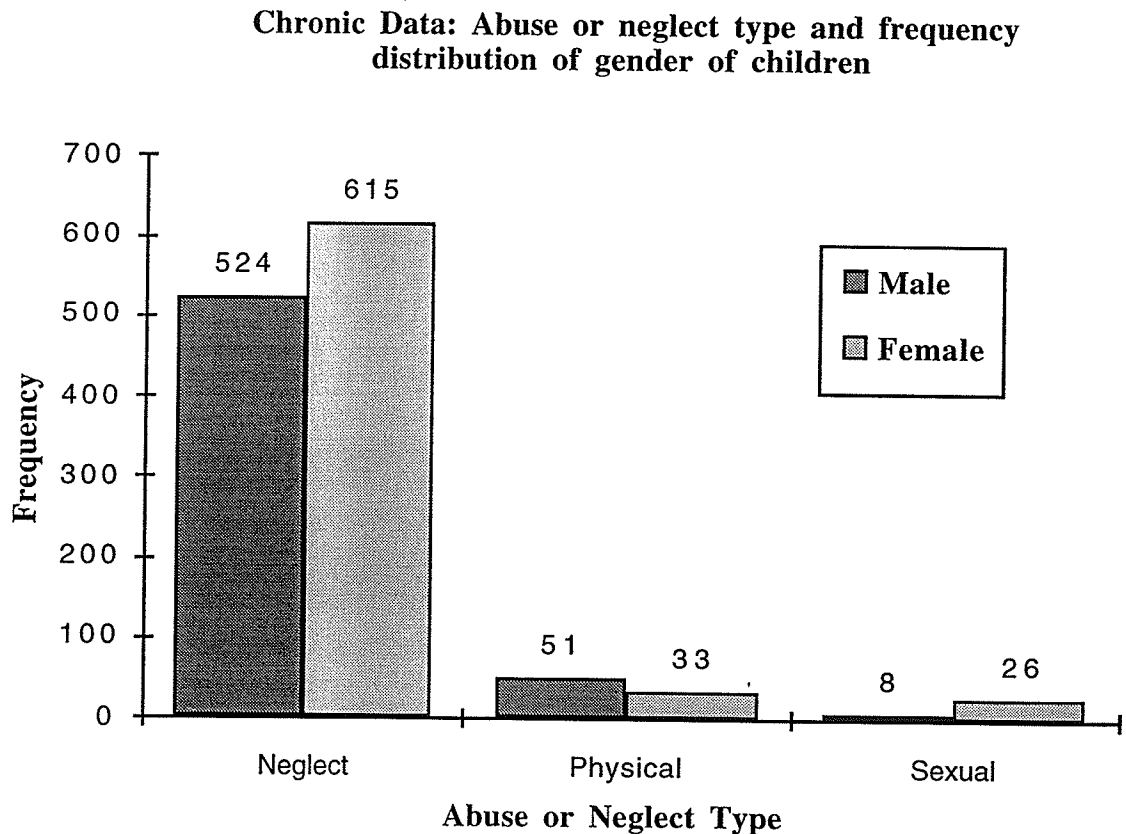
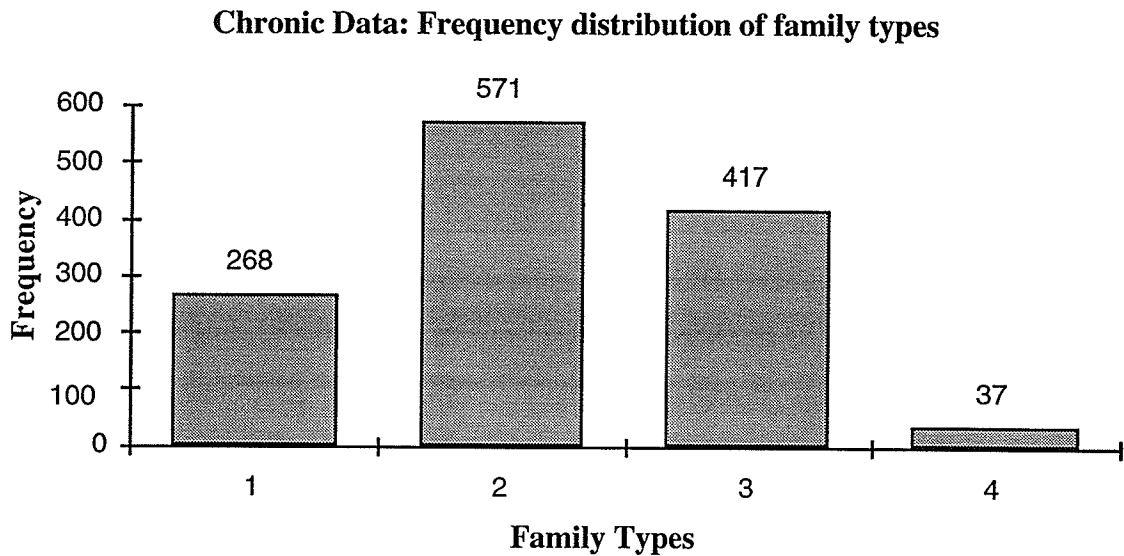


Figure 3 is a histogram of the families with chronic maltreatment problems divided into four types: single biological female caregiver, biological male/female caregivers, blended/step/common-law families (one caregiver is the biological

caregiver), and extended family caregivers: grandparents, grandmother, cousin, aunt, uncle. This latter category accounts for approximately 4 % of the families. Single biological caregivers are recorded as 44% of the total, biological male/female caregivers are recorded as 21% of the total, and category three recorded approximately 32% of the total.

Figure 3



Eighty-seven percent of caregiver A are female. The age range of caregiver A is from 15 to 62 years of age, with a median of 28 years.

When examining the frequencies of the M.R.E.S. facesheet and M.R.E.S. variables, there are missing values for much of the data, particularly on caregiver B, other relevant participants and other offender characteristics. The variables assessing risk of vulnerability to the child recorded that the overwhelming majority scored a 5 (very high) and there was too little variance in these scores for further analysis. These variables have not been included in further data analysis. Variables scored for caregiver A's Understanding of the child and Personal characteristic showed a negatively skewed pattern with the following variables: Perception of the incident, Perception of the child, Attitude regarding discipline, Parenting knowledge and skills, Substance abuse and Stress. Over 70% of the recorded

values reported a score of 4 or 5 (high or very high) in Perception of the incident and Perception of the child. Over 50% of Caregiver A recorded a 4 or 5 value on the variables Attitude regarding discipline. On the variable Parenting knowledge and skills, 90% recorded a value of 4 or 5. Over 84% of caregiver A recorded a substance abuse problem. 97% reported a value of 4 or 5 for the Stress variable.

Neglect

Table 3

Neglect Sample			% of Sample
Sample size:		116	
# of Forms:		1172	
Children's Age:	Range	.04 - 17	
	Mean	4	
Children's Gender:	Male		46%
	Female		54%

Substantiated events ranged from frequencies of 3 to 40. This means that there is a minimum of 3, and a maximum of 40 substantiated incidents of neglect per family in these files. Twenty-two percent of these M.R.E.S. recorded a family type 1, biological parents; 48% of these M.R.E.S. recorded a family type 2, single biological female parent; 28% of these M.R.E.S. recorded a family type 3, common-law/step-parent/blended family and only 1 M.R.E.S. recorded family type 4, extended family. The age of caregiver A ranges from 15 to 62 years of age, and the age of caregiver B ranges from 19-two to 49 years of age.

Physical Abuse

Table 4

Physical Abuse Sample			% of Sample
Sample size:		8	
# of Forms:		87	
Children's Age:	Range	.08 - 17	
	Mean	6	
Children's Gender:	Male		60%
	Female		40%

Substantiated events ranged from frequencies of three to twenty-five. This means that there is a minimum of three, and a maximum of twenty-five substantiated incidents of physical abuse in these files. Seventy-four of the M.R.E.S. in this sample recorded a family type 3, common-law/step-parent/blended family; 6 recorded family types which included foster parents (informal and formal) and adoptive parents; 7 recorded a family type of extended family. The age of caregiver A ranges from 18 to 55 years of age. 89% of the recorded values for gender of caregiver A were female. All scored a 5 for the variable Severity of current incident. All the cases recorded a high or very high value for the variable Stress.

Sexual Abuse

Table 5

Sexual Abuse Sample			% of Sample
Sample size:		4	
# of Forms:		34	
Children's Age:	Range	2 - 15	
	Mean	6	
Children's Gender:	Male		23.5%
	Female		76.5%

Substantiated events ranged from frequencies of 5 to 11. This means that there is a minimum of 5, and a maximum of 11 substantiated incidents of sexual abuse in these files. Twenty-five of the M.R.E.S. facesheets in this sample recorded a family type 3: common-law/step-parent/blended. The others involved family type 4: extended family situations: cousin, aunt, uncle. The age of caregiver A ranges from 27 to 44 years of age. All of the severity levels of the current incident of abuse scored a value of 5. Variables A6 through A15 were all negatively skewed toward higher values of 5.

Family Type 1: Biological Caregivers

The number of substantiated cases in this family type range from 1 to 25. The age of caregiver A ranges from 19 to 50 years of age, and the age of caregiver B ranges from 19 to 49 years of age. All of the cases from the family type 1 data were labeled neglect cases.

Table 6

Family Type 1			% of Sample
Sample size:		27	
# of Forms:		268	
Neglect:		268	100%
Children's Age:	Range	.05-16	
	Mean	4	
Children's Gender:	Male		48%
	Female		52%

Family Type 2: Single Biological Caregiver

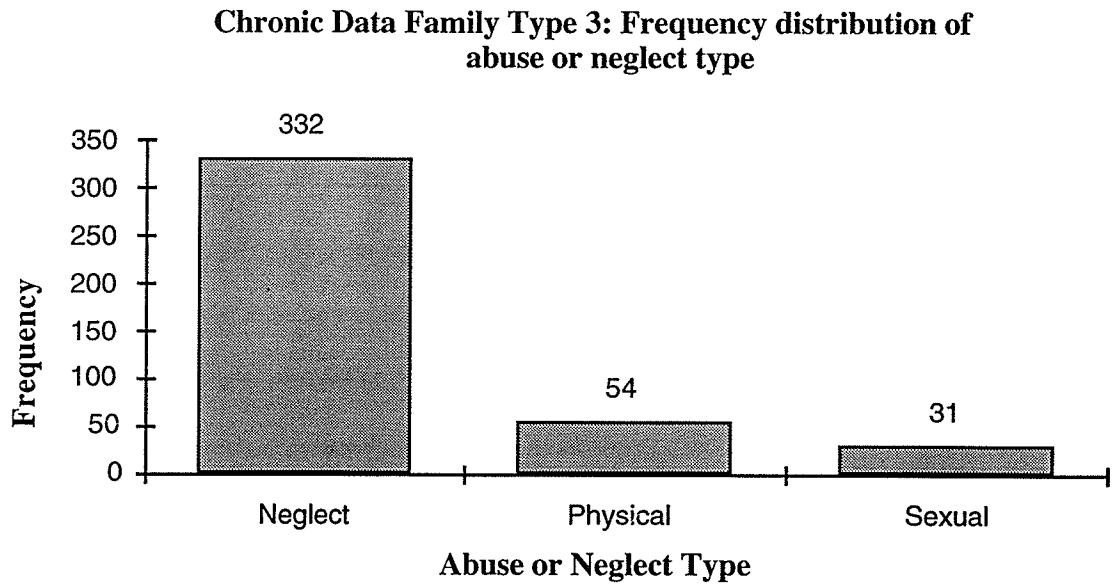
The number of substantiated neglect cases in this sample ranged from 1 to 40 in frequency. The age of caregiver A ranges from 16 to 53 years of age. All of the cases from the family type 2 data were labeled neglect cases.

Table 7

Family Type 2			% of Sample
Sample size:		63	
# of Forms:		571	
Neglect:		571	100%
Children's Age:	Range	.04-16	
	Mean	4	
Children's Gender:	Male		46%
	Female		54%

Family Type 3: Common-law, step-families and blended

Figure 4



The family type 3 group had the three maltreatment types within its data set. The frequencies of these cases are shown in figure 4. The number of substantiated abuse/neglect cases ranged from 1 to 30 in frequency. The age of caregiver A ranges from 15 to 62 years of age and the age of caregiver B is from 19 to 48 years of age.

Table 8

Family Type 3			% of Sample
Sample size:		42	
# of Forms:		417	
Abuse/Neglect Type:			
Neglect:		332	79.5%
Physical Abuse:		54	13%
Sexual Abuse:		31	7.5%
Children's Age:	Range	.05-16	
	Mean	5	
Children's Gender:	Male		45%
	Female		55%

Family Type 4: Extended family caregivers

Figure 5

Chronic Data Family Type 4: Frequency distribution of abuse or neglect type

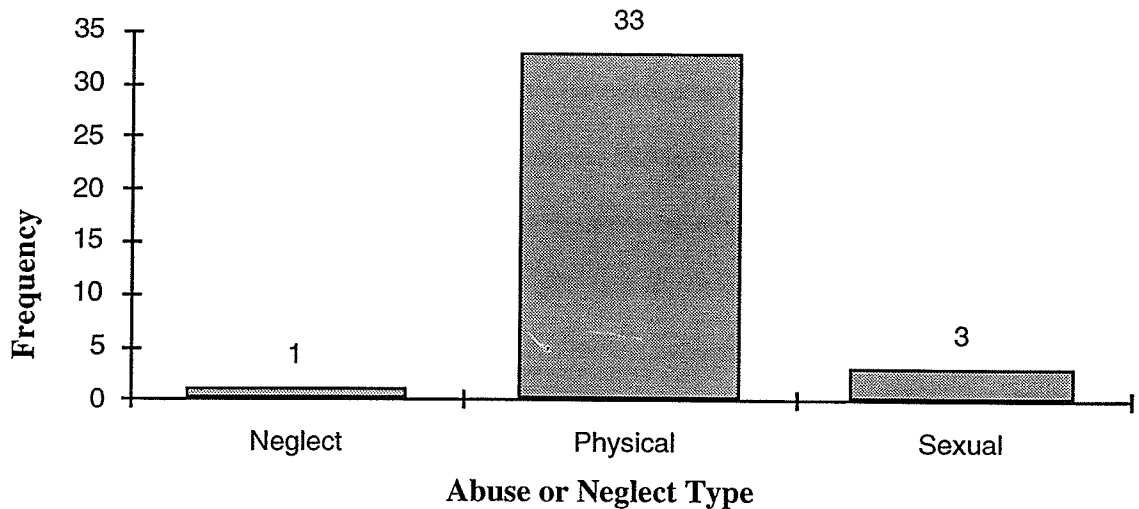


Figure 5 demonstrates that the majority of the maltreatment types in family type 4 is physical abuse. The number of substantiated abuse/neglect cases for family type 4 ranged from 1 to 16 in frequency. The age of caregiver A ranges from 18 to 55 years of age and the age of caregiver B is from 25 to 43 years of age.

Table 9

Family Type 4			% of Sample
Sample size:		6	
# of Forms:		37	
Abuse/Neglect Type:			
Neglect:		1	3%
Physical Abuse:		33	89%
Sexual Abuse:		3	8%
Children's Age:	Range	.08 - 17	
	Mean	7	
Children's Gender:	Male		59%
	Female		41%

Results of t tests

t tests were also performed on these variables to assess whether significant differences exist between the groups. Variables showing significant differences between groups have been marked with an asterix. The age of the child is significantly different for the child in the neglect data compared with the two abuse types. The mean age of children is younger in the neglect sample. The sexual abuse and physical abuse data are not significantly different when examining this variable. The variable age of Caregiver A is significantly different for the sexual abuse data and the other two maltreatment types. The mean age of caregiver A for the physical abuse and neglect data is significantly lower in years than for the sexual abuse data. When examining the variable severity of the current incident, the neglect data is significantly different from the physical abuse and sexual abuse data. The mean scores are lower for neglect, although the values recorded average to a score of four (high). The neglect data and physical abuse data are significantly different two other variables: perception of the incident and perception of the child. The neglect data has a lower mean score than the physical abuse data. The sexual abuse data is not significantly different on these variable.

Table 10

Variables found to be significantly different between groups

		S	P	N
	Age: mean			*
	A: age mean	*		
4	Severity of Current Incident			*
11	A: Perception-Incident		*	*
12	A: Perception-Child		*	*

***p < .001**

A list of the mean responses for the maltreatment types and percentages of cases with variable values of three or greater is provided. Comparisons can be made between the sexual abuse, physical abuse and neglect groups.

Table 11**Mean scores of variables for chronic data**

	Sexual	n	Physical	n	Neglect	n
Age: mean*	8.36	33	6.93	87	4.98	1147
A: age mean*	35.29	17	29.44	64	29.09	886
Access by Perpetrator	5	34	5	87	4.99	1168
Child able to Protect Self	4.47	34	4.63	87	4.41	1159
Adequate Protector Present	4.53	34	4.77	87	4.63	1168
Severity of Current Incident*	5	34	5	87	3.97	1172
A: Severity (Prior)	3.89	28	3.67	86	3.89	1053
A: Recency (Prior)	3	27	3.05	86	3.4	1038
A: Frequency (Prior)	3.52	29	2.98	86	3.29	1037
A: Severity (Trend)	2.96	27	2.47	86	2.68	976
A: Frequency (Trend)	2.68	22	2.37	79	2.7	911
A: Perception-Incident*	4.28	29	4.78	74	4.06	947
A: Perception-Child*	4.25	28	4.72	75	3.84	912
A: Attachment	3.56	18	3.5	10	2.84	662
A: Attitude re: Discipline	3.57	14	5	3	3.19	200
A: Parenting Knowledge & Skills	4.24	33	4.69	83	4.53	1101
A: Age	0	32	0.47	85	0.24	1113
A: Substance Abuse	3.59	32	4.3	81	4.25	1032
A: Psychopathology/Incapacity	0.3	33	0.37	81	0.21	1074
A: History of Violence	2.24	21	1.45	64	1.38	769
A: Stress	4.46	28	4.61	84	4.62	1090

* p < .001

Table 12
Percentage of male/female children and caregiver, age of children and caregiver, and variable scores of 3, 4 & 5

Variables:	Sexual		Physical		Neglect		Total	
	%	n	%	n	%	n	Set %	n
Gender of Child Male	24	34	61	84	46	1139	46	1257
Gender of Child Female	76	34	39	84	54	1139	54	1257
Age: mean	8.36	33	6.93	87	4.98	1147	5.2	1267
A: age mean	35	17	29	64	29	886	29	967
A: gender male	8	34	10	87	13	1169	13	1290
A: gender female	91	34	90	87	87	1169	87	1290
Access by Perpetrator	100	34	100	87	100	1168	100	1289
Child able to Protect Self	100	34	93	87	94	1159	94	1280
Adequate Protector Present	96	34	100	87	95	1168	95	1289
Severity of Current Incident	100	34	100	87	86	1172	88	1293
A: Severity (Prior)	81	28	76	86	82	1053	82	1167
A: Recency (Prior)	62	27	62	86	70	1038	70	1151
A: Frequency (Prior)	65	29	61	86	67	1037	66	1152
A: Severity (Trend)	80	27	76	86	84	976	84	1089
A: Frequency (Trend)	72	22	74	79	82	911	81	1012
A: Perception Incident	84	29	100	74	90	947	91	1015
A: Perception Child	91	28	98	75	92	912	91	1015
A: Attachment	71	18	70	10	66	662	66	690
A: Attitude re: Discipline	77	14	100	3	72	200	71	217
A: Parenting Knowledge & Skills	87	33	97	83	97	1101	97	1217
A: Age	0	32	13	85	6	1113	6	1230
A: Substance Abuse	74	32	86	81	87	1032	87	1145
A: Psychopathology / Incapacity	6	33	7	81	3	1074	3	1188
A: History of Violence	47	21	29	64	29	769	30	854
A: Stress	99	28	99	84	98	1090	98	1202

Results of Factor Analysis

Factor analysis was used with the three abuse/neglect types of the data in order to explore whether variables group/load on to individual factors. This research used the principal factor method which extracts the maximum amount of variance that can be extracted by a given number of factors (Gorsuch, p. 95). Principal factor analysis was performed with varimax rotation using the statistical computer programme JMP.

This study's variables are based on 15 variables from the Manitoba Risk Estimation System. It is important to note that not all of the same variables could be included in the three analyses due to values in cells missing. As well, in some of the subgroups of data, too many variables were missing information to be able to continue with a factor analysis. Some variables scored almost uniformly on values and due to their lack of variance were not included in the data analysis. The table reporting the findings of the factor analysis for the chronic data, the physical abuse data, the neglect data and the sexual abuse data excludes figures when the variables were not in the analysis.

The research was interested in exploring whether latent structure exists within the variables, and determining what the concepts might reflect this structure. In this research project, there were many cases with missing data and those cases were excluded automatically by the computer programme, and some variables were deleted from the analysis, due to the number of missing values (please note Appendix which lists these excluded variables).

Complete Chronic Data

The first correlation matrix analyzed in this research recorded correlations above .3, suggesting that the use of Factor Analysis was appropriate (Tabachnick & Fidell, 1989). After rotation, only variables loading 0.4 or higher were retained. This resulted in all 15 variables loading onto five factors. Thirteen are considered to

be salient variables, and two variables are considered complex. The communality values ranged from and tended to be moderate to high, ranging from 0.58-0.89 (Please refer to table).

The first factor for the complete chronic data set seems to reflect a caregiver with low levels of understanding of the child's needs combined with substance abuse problems. This factor is composed of the following variables; Perception of the incident, perception of the child, attachment and parental substance abuse. This factor is labeled "Understanding and Substance Abuse".

The findings suggest that the second factor represents the abuse/neglect pattern and is composed of the following variables; severity of prior incidents, the recency of prior incidents, the frequency in lifetime, and the severity and frequency trends. This second factor is labeled "Pattern".

The third factor is composed of the following variables; stress and the severity and frequency trends. The latter two variables are complex variables and are excluded from this factor as they load with a stronger magnitude onto factor 2. This factor is labeled "Stress".

The fourth factor of the Chronic data set suggests the underlying concept is aggression or violence. The variables attitude regarding discipline and history of violence load onto this factor. This factor has been labeled "Violence".

The fifth factor of the Chronic data set records two variable loadings: more than one abuse/neglect type and psychopathology. This factor has been labeled "Mental Health".

Loadings of variables on factors, communalities and percents of variance are shown in the following table. Variables are ordered and grouped by size of loading to facilitate interpretation. Loadings under 0.4 are replaced by zeros.

Table 13
Rotated Factors for Complete Chronic Data Adult A

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
	(Understanding & Substance Abuse)	(Pattern)	(Stress)	(Violence)	(Mental Health)	
Eigenvalue	4.7	2.7	2.1	1.16	1.1	Cumulative
Variance %	31	18	14	7.7	7.4	79%
Variables:						Communality
5	0	0	0	0	.73	.79
A6	0	.77	0	0	0	.78
A7	0	.86	0	0	0	.75
A8	0	.85	0	0	0	.77
A9	0	.66	0	0	0	.89
A10	0	.69	0	0	0	.87
A11	.83	0	0	0	0	.75
A12	.77	0	0	0	0	.89
A13	.89	0	0	0	0	.84
A14	0	0	0	.93	0	.88
A15	0	0	0	0	0	.70
A17	.81	0	0	0	0	.80
A18	0	0	0	0	.68	.58
A19	0	0	0	.75	0	.77
A20	0	0	-.82	0	0	.75

Neglect

The first correlation matrix analyzed in this research recorded correlations above .3, suggesting that the use of Factor Analysis was appropriate (Tabachnick & Fidell, 1989). After rotation, only variables loading 0.4 were retained. This resulted in all 15 variables loading onto five factors. All are salient variables. The communality values ranged from 0.48 to 0.89 (Please refer to table).

The first factor of the neglect sample seems to reflect a caregiver with low levels of understanding of the child's needs combined with substance abuse problems. This factor is composed of the following variables; Perception of the incident, perception of the child, attachment and parental substance abuse. This factor is labeled "Understanding & Substance Abuse".

The findings suggest that the second factor represents the abuse/neglect trend of the caregiver and is composed of the following variables; severity of prior incidents, recency of prior incidents, frequency of incidents in a lifetime, severity trend, and frequency trend. This second factor is labeled "Pattern".

The third factor suggests the underlying concept is aggression or violence. The variables of attitude toward discipline and history of violence load onto this factor. This factor has been labeled "Violence".

The fourth factor is composed of the variables more than one abuse/neglect type, parenting knowledge and skills and psychopathology. Parenting knowledge and skills are inversely associated with the other variables. It seems that children of caregivers with a mental health problem are more likely to experience more than one abuse/neglect type. The caregiver's knowledge in parenting issues is not poor, it is the mental health problem affecting caregiving. This factor is named "Mental Health & > 1".

The final factor is composed of the stress variable. This factor is named "Stress".

Loadings of variables on factors, communalities and percents of variance are shown in the following table. Variables are ordered and grouped by size of loading to facilitate interpretation. Loadings under 0.4 and complex loadings are replaced by zeros.

Table 14

Rotated Factors from Neglect sample - Adult A

	Factor 1 (Understanding & Substance Abuse)	Factor 2 (Pattern)	Factor 3 Violence	Factor 4 (Mental Health & > 1)	Factor 5 (Stress)	
Eigenvalue	4.4	3.0	1.9	1.2	1.0	Cumulative
Variance %	29.7	20	12	8.6	6.9	78 %
Variables						communality
5	0	0	0	-.86	0	.82
A6	0	.72	0	0	0	.81
A7	0	.81	0	0	0	.70
A8	0	.78	0	0	0	.73
A9	0	.84	0	0	0	.83
A10	0	.88	0	0	0	.86
A11	.81	0	0	0	0	.74
A12	.77	0	0	0	0	.89
A13	.90	0	0	0	0	.85
A14	0	0	.93	0	0	.88
A15	0	0	0	.57	0	.67
A17	.81	0	0	0	0	.81
A18	0	0	0	-.64	0	.48
A19	0	0	.84	0	0	.85
A20	0	0	0	0	.86	.78

Physical Abuse

The variables Perception of incident, perception of child were missing many values and were deleted from this group's factor analysis. The variable Parenting knowledge and skills was omitted from the analysis as well because there was a lack of variance in the values: over 75% scored a value of 5. The first correlation matrix analyzed for physical abuse cases recorded correlations above .3, supporting the use of factor analysis (Tabachnick & Fidell, 1989). After rotation, only variables loading 0.4 were retained. This resulted in all 11 variables loading onto

three factors. All of the variables were considered to be salient. The communality values were medium to high and ranged from 0.53-0.96.

The findings suggest that the first factor of the physical abuse sample represents the abuse/neglect pattern. It is composed of the following variables; severity of prior incidents, the recency of prior incidents, the frequency in lifetime, the trend of severity and the trend of frequency. This second factor is labeled "Pattern".

The second factor seems to reflect a latent structure of a caregiver's understanding of the child's needs combined with substance abuse problems. This factor is composed of the following variables; perception of the incident, perception of the child and parental substance abuse. This factor is labeled "Understanding & Substance Abuse".

The third factor is composed of two variables: psychopathology, history of violence and stress. This factor is named "Mental health, stress & violence".

Loadings of variables on factors, communalities and percents of variance are shown in the following table. Variables are ordered and grouped by size of loading to facilitate interpretation. Loadings under 0.4 and complex loadings are replaced by zeros.

Table 15

Rotated Factors Physical Abuse - Adult A

	Factor 1	Factor 2	Factor 3	
	(Pattern)	(Understanding & Substance Abuse)	(Mental Health, Stress & Violence)	
EigenValue	4.3	2.9	1.6	Cumulative
Variance %	39	27	15	81 %
Variables:				Communalities
A 6	.96	0	0	.96
A 7	.81	0	0	.68
A 8	.85	0	0	.78
A 9	.92	0	0	.89
A 10	.88	0	0	.89
A 11	0	.97	0	.96
A 12	0	.87	0	.88
A 17	0	.97	0	.96
A 18	0	0	.80	.67
A 19	0	0	.84	.73
A 20	0	0	.66	.53

Sexual Abuse

The variable "More than one Abuse/Neglect Type" could be included in the factor analysis of the sexual abuse data. The variables "Psychopathology" and "History of Violence" had to be excluded from the analysis as well. The correlation matrix analyzed for the sexual abuse sample recorded correlations above .3, suggesting that the use of factor analysis was appropriate (Tabachnick & Fidell, 1989). After rotation, only variables loading 0.4 or higher were retained. This resulted in ten variables loading onto three factors. Eight are salient variables, and two variables are complex. The communality values for all the variables ranged from .46 to .99 (Please refer to table 1). The complex variables are: recency of prior, frequency trend and stress. These variables are included with factors on which the loading was strongest magnitude.

The first factor for the sexual abuse sample seems to reflect the abuse/neglect pattern and is composed of the following variables; severity of prior incidents, the recency of prior incidents, frequency in lifetime, severity and frequency trends. This factor is labeled "Pattern".

The second factor of the sexual abuse sample has the following variables loading onto it: Perception of the incident, perception of the child, substance abuse and stress. The latter two variables are inversely associated with the other variables. This factor has been labeled "Understanding, Substance abuse & Stress".

Loadings of variables on factors, communalities and percents of variance are shown in the following table. Variables are ordered and grouped by size of loading to facilitate interpretation. Loadings under 0.4 are replaced by zeros.

Table 16

Rotated Factors Sexual Abuse Sample - Adult A

	Factor 1	Factor 2	
	(Pattern)	(Understanding, Substance Abuse & Stress)	
EigenValue	4.2	2.6	Cumulative
Variance %	42	26	68%
Variables:			Communalities:
5	0	0	.45
A 6	.71	0	.80
A 7	.90	0	.82
A 8	.85	0	.92
A 9	.85	0	.80
A 10	.92	0	.92
A 11	0	-.73	.54
A 12	0	-.73	.54
A 17	0	.56	.54
A 20	0	.68	.47

Discussion of Data Results

The hypotheses of this research were that families with different maltreatment types have unique variable patterns and also that they may share variable patterns. It was also stated that these variable patterns are identifiable. The data analysis reveals that certain patterns of characteristics are associated with different abuse/neglect types. This section discusses the outcomes of the descriptive statistics, followed by the results of the factor analysis.

Frequency Results

Family type.

It is interesting to note that both the biological caregivers and single female biological caregivers reported only neglect incidents. The family types containing step-parents, common-law relationships, blended families and extended family caregivers recorded a combination of the three types of maltreatment. While the neglect cases are high in frequency, the data suggests that children in family types 3 and 4 could be at a greater risk of sexual abuse or physical abuse. This stresses the need for intervention with both caregivers when involved with two parent families.

Prior history and severity.

The overwhelming majority of the chronic data abuse/neglect types record a prior history of abuse or neglect incidents, however a minority of the cases recorded no prior instance of abuse or neglect. Thirteen percent of the cases from the chronic data set, 12% of cases from the neglect sample, 23% of those from the physical abuse sample and 17% of cases from the sexual abuse sample had values of zero for the prior severity of an abuse incident, recency, frequency and the trends. These figures could be reflecting at least two issues: (1) the method of data collection, or (2) the reality that many previous incidents are not involved with social service agencies and are consequently not recorded. Files were selected on the basis of number of abuse or neglect incidents, or a combination of number of

incidents and the amount of time the file was opened. With certain files, there were no prior maltreatment incidents recorded. Consequently a value of zero would be entered on the M.R.E.S. form in the section assessing the abuse/neglect pattern. Another explanation of the frequency counts of the zero values in this area, is that many prior incidents occurred, but were not recorded in the file. Situations of abuse or neglect are usually reported to a child welfare agency when deemed serious by those reporting the maltreatment. Cases which are viewed as less harmful to a child's safety, particularly with the phenomenon of child neglect, are generally not reported, and if reported, are not necessarily opened.

However, approximately 75% to 85% of the cases recorded prior incidents of abuse or neglect. This seems to suggest that once the pattern of maltreatment exists, there is a greater likelihood of it reoccurring. The severity level of both the prior and current abuse/neglect incidents scored high values for the majority of the cases as well. This adds support to previous findings which found an association between the severity of the initial incident of child maltreatment and future serious incidents (Howze Browne, 1986; Johnson & L'Esperance, 1984). Children in these families are exposed to serious levels of harm over time.

M.R.E.S. variables.

The variables substance abuse, perception of the child, perception of the incident, and attachment, are also high in frequency for the three maltreatment types. Clearly, the overwhelming majority of the caregiver in these families has serious substance abuse problems and very little understanding of their child's needs. The neglect, physical and sexual abuse groups also have high scores for the variables stress, attitude regarding discipline, parenting knowledge and skills. The variable history of violence does not report high frequencies for the abuse/neglect types, which seems to suggest that generally, families with chronic abuse/neglect problems are not violent. A picture of families with chronic abuse/neglect problems

emerges, depicting persistent substance abuse problems, high levels of stress, and poor parenting knowledge or skills. These results provide support to previous findings which reported a high incidence rate of substance abuse among maltreating caregivers (Ayoub, 1992; Bath & Haapala, 1993; Dinwiddie & Bucholz, 1993; Wald et al., 1989; Watters, 1986).

Gender of child.

There is a higher proportion of female children in the sexual abuse cases and a lower proportion of females in the physical abuse cases which seems to reflect findings from previous studies (Kendall-Tackett & Simon, 1992). Prior research has found that boys are more likely to be sexually abused by people outside of the caregiving role, while girls are more likely to be abused by step-fathers, and both were equally likely to be abused by natural fathers. Interestingly, all the sexual abuse cases were in family types three and four, and none were in the biological parent family type. This data may be reflecting this finding as children who were sexually abused by a third party were not included in this sample, unless the caregiver were unwilling to protect the child. Differences based on the child's gender may also be due to societal sex-role stereotyping which encourages male children to take on roles that are considered traditionally male: tough, aggressive and physical, while female children are influenced to accept a feminine role characterized by passivity or submissiveness. Caregivers could reflect this stereotyping by perceiving physical force as more appropriate with male children than with female children. This gender stereotyping may make female children more vulnerable to sexual abuse as a result. Interestingly, there are slightly fewer male children than female children when examining the neglect data. This is perhaps due to a more nondiscriminatory nature of this maltreatment type. Unlike physical abuse and sexual abuse, neglectful behaviour is not usually actively directed against a

child. As a consequence, the potential gender issues surrounding neglectful behaviour dissolve.

Age of child.

The median age of child is highest for sexual abuse (9 years), followed by physical abuse (6 years), then neglect (4 years). These figures are slightly higher than those reported by Watters et al. (1986). These authors found that the mean age for abused children was 5.2 years and for neglected children it was 2.1 years. This may be reflecting a sampling issue in that these families have a history of maltreatment and continuing to experience maltreatment problems over time. It seems that sexual abuse may be associated with the developmental age of a child, and consequently occurs more often with an older child when compared with physical abuse or neglect. These latter maltreatment types seem to be associated with substance abuse problems, and all ages are affected (particularly with neglect). As with gender of a child, neglectful behaviour does not discriminate against specific ages, rather it becomes an issue of whether the child is able to care for him/herself. The vulnerability level of the child becomes an important aspect of assessment. In neglect cases, it seems likely that an older child is more able to care for him/herself. An infant or young child is particularly vulnerable to chronic physical abuse and neglect.

Adolescent caregivers and psychopathology/incapacity.

Very few of the caregivers were identified as adolescents parents (0 for sexual abuse, 2% for physical abuse and 1.7 for neglect). This may partly be due to the operational definition of chronic (3 or more substantiated incidents of abuse or neglect) and the limited time period in which a person qualifies as "very high" (18 years). This figure may also be reflecting the proportion of adolescent caregivers when compared with non-adolescent caregivers in the general population. However, these cases may represent situations in which certain adolescent

caregivers neglect or physical abuse their children due to issues distinct from or in combination with substance abuse problems, for example immaturity or ignorance. The variable psychopathology/incapacity also has low frequencies recorded within the data. This again may be reflective of the general population's incidence of psychopathology. It suggests that the majority of families with chronic abuse or neglect problems do not have psychopathological or other mental health problems. However, when they are evident, these characteristics could seriously raise the potential of harm to a child. Each of these variables may have an additive effect on the maltreating behaviour.

Parenting knowledge and skills.

Although the variable Parenting knowledge and skills could not be included in the factor analysis, it appears this is due to a lack of variance within the data. The sexual abuse data recorded 84% of caregivers as having poor levels of parenting knowledge and skills, the physical abuse data showed that 91% recorded poor parenting knowledge and skills, and the neglect data recorded 70% on this variable. This seems to show that most of these caregivers require some kind of intervention providing supportive services to improve their skills of providing care to children and knowledge of parenting issues.

Discussion of Factor Analysis

Pattern.

When considering the patterns of variable loadings on factors, differences and similarities appear for the maltreatment types. A common dimension existed across sexual abuse, physical abuse and neglect which reflects a past pattern of abusive or neglectful behaviour. It appears that the existence of a prior history of abuse or neglect mirrors a pattern of behaviour to which the caregiver is habituated, and there are at least two detrimental results: 1) The caregiver becomes accustomed to using the maltreating behaviour over time, and as a result uses it regularly, and 2)

this repetition creates a set pattern of behaviour which becomes extremely difficult to change. The likelihood of future abuse or neglect incidents is considered high if a pattern of behaviour exists.

Understanding of child's needs and substance abuse.

The families with chronic neglect and sexual abuse and physical abuse problems also reflect a dimension associating substance abuse problems with understanding of the child's needs. This may reflect the situation in which a substance abuse problem inhibits the caregiver's ability to perceive and understand his/her child's needs: The child's needs are secondary to the caregiver's addiction. For the sexual abuse data, two variables, substance abuse and stress are inversely associated with the variables reflecting the caregiver's level of understanding the child's needs. It is possible that when a caregiver in these families experiences stress, there is a greater likelihood of substance abuse, however, neither the substance abuse nor the stress provide the motive for the sexually abusive behaviour. Deeper motivational forces other than an addiction problem are possibly the source of this abuse type.

Stress, psychopathology and aggression.

The chronic neglect data show that the variable stress loads onto a factor by itself. This probably reflects the constant stress levels these families experience. The factor analysis also seems to demonstrate that a mental health problem increases the risk level to a child's safety. Sexual abuse cannot be compared with physical abuse and neglect on this dimension as the variable psychopathology could not be included in the data analysis. However, findings suggest that the existence of a mental health problem may create caregiving problems whose origins are motivated by different forces. The physical abuse data show that the variable psychopathology is associated with stress and a history of violence. This could reflect a situation in which a caregiver with a mental health problem and experiencing high stress,

assaults a child physically, as violence is used as a problem-solving method. In either situation, a mental health problem may be reflecting a fundamental difference in the source of the maltreating behaviour than simply an addiction issue.

Interestingly, neglect appears to reflect a dimension of violence separate from physical abuse (sexual abuse data could not include the variables Attitude regarding discipline and History of violence in the factor analysis; physical abuse data did not include the variable Attitude regarding discipline). This may be exposing an underlying structure of neglectful caregivers whose use of violence is reflected indirectly onto their children by involving them in dangerous situations.

Table 17
Comparison of Factor Analysis

	Sexual		Physical			Neglect			f4	f5
	f1	f2	f1	f2	f3	f1	f2	f3		
>1 CAN Type	--	--	--	--	--				-.86	
A: Severity (Prior)	0.71		0.96				0.81			
A: Recency (Prior)	0.90		0.81				0.74			
A: Frequency (Prior)	0.90		0.85				0.78			
A: Severity (Trend)	0.85		0.92				0.84			
A: Frequency (Trend)	0.92		0.88				0.88			
A: Perception Incident		-.73		0.97		0.81				
A: Perception Child		-.73		0.87		0.77				
A: Attachment	--	--	--	--	--	0.90				
A: Attitude re: Discipline	--	--	--	--	--			0.93		
A: Parenting Knowledge & Skills	--	--	--	--	--				.57	
A: Substance Abuse		.56		0.97		0.81				
A: Psychopathology/ Incapacity	--	--			0.80					-.64
A: History of Violence	--	--			0.84			.84		
A: Stress		.68			0.66					.86

*(-- Variables could not be included in the factor analysis)

Table 18**Comparison of Structure Patterns**

Latent Structure Patterns	Chronic	Neglect	Physical	Sexual
Understanding & Substance Abuse	C	N	P	
Pattern	C	N	P	S
Stress	C	N		
Violence	C	N		
Mental Health	C	N		
Mental Health, Violence & Stress			P	
Understanding, Substance Abuse & Stress				S

Conclusions and Implications For Practice

This study compared characteristics of families with chronic physical abuse, chronic sexual abuse and chronic neglect problems. The research method involved rating closed family files. Data was analyzed to assess whether characteristics or associations of characteristics varied across the maltreatment types. Limitations of the research include the use of secondary sources for data, not including a comparison or control group within the research and violations of some assumptions required for statistical analysis techniques. As well, small samples sizes for physical abuse cases and especially sexual abuse cases result in limited interpretations of results for those groups. However, results of the research show that differences and similarities of families with chronic maltreatment problems were identified. These results have implications for different methods of intervention provided to these families. Findings from the research are supported by the literature. The results suggest that individual personality problems of caregivers,

environmental influences, and interactions between individuals and their surroundings influence abusive or neglectful behaviour.

The family types of this data sample are mainly biological caregivers, single female caregivers and common-law/blended/step-parent families. There are proportionately more single female caregivers represented in this sample in comparison with the general population. This is consistent with findings from the literature (Schloesser et al., 1992; Wald et al., 1988; Watters et al., 1986). This disproportionate distribution supports the belief that poverty is characteristic of families with child abuse and neglect problems (Ethier et al., 1992; Newberger et al., 1985; Wolock & Horowitz, 1984), as single female caregivers are highly visible in low socioeconomic statistics (Statistics Canada, 1991). The combination of poverty and single parenting is stressful emotionally and physically, and can result in the maltreatment of children. Alleviating the existing gender inequality evident in socioeconomic status should be a priority of government, as the current situation devalues the importance of child care and is detrimental to a child's long-term health. Intervention must address issues of inequality and their impact on children.

It is important to note that none of the biological caregivers (F.T. 1) nor the single female caregivers (F.T. 2) reported physical abuse or sexual abuse incidents. Children in families with chronic problems may be more vulnerable to abuse when living in common-law/blended or step-parent families or when being cared for by extended family members. It is possible that differences between these family types and the reasons for the maltreating behaviour exist, however information that would be useful to examine different characteristics of these family types, particularly addressing the characteristics of caregiver B, is missing. It is evident that intervention with families with two caregivers must assess the parenting behaviours of both caregivers and their interactions. The nonoffending caregiver may be

unwilling or unable to protect the child from abusive behaviour and place the child's needs in an inferior position to those of the offender. In these situations, intervention should focus on terminating the maltreating behaviour and providing support to the nonoffending caregiver to act in a manner that protects the children from harm.

The families with chronic neglect, physical abuse and sexual abuse problems are characterized as possessing substance abuse problems, with a poor knowledge of parenting issues or skills, having low levels of understanding of a child's needs and experiencing high levels of stress. These findings support prior studies associating these characteristics with child abuse or neglect (Ayoub et al., 1992; Bath & Haapala, 1993; Korbin, 1989; Lujan et al., 1989; Watters et al., 1986). These families experience multiple long-term problems, and certain aspects resemble the families identified by Ayoub et al. (1992); poverty, stress, poor family functioning, substance abuse and violence. The existence of a violent characteristic within families with multiple problems, although low in frequency, results in a poor prognosis for change in family functioning. The high frequency of substance abuse problems may also reflect a caregiver's maladaptive coping response to problems she/he experiences. Interestingly, these findings do not provide support to previous research which identified psychopathology, aggression, immaturity and adolescent caregiving as characteristic of the majority of maltreating families. These characteristics are low in frequency in this data and do not typify families with chronic physical abuse, sexual abuse and neglect problems. However, existence of these characteristics suggest that a child is at risk of further abuse or neglect.

Certain findings are important to highlight in relation to the families with chronic maltreatment problems. First, results suggest that if the caregiver has a history of abuse or neglect, a pattern of maltreating behaviour exists, and the maltreatment is likely to reoccur. This result is also supported by prior research

identifying an association between a history of abusive or neglectful behaviour, and the likelihood of it reoccurring (Christoffel et al., 1985; Korbin, 1989; Isaacs, 1972). It seems that a pattern of maltreating behaviour establishes a threshold for further abusive or neglectful behaviour. A process of desensitization occurs. The prior pattern of abuse or neglect was identified across the neglect sample, the physical abuse sample and the sexual abuse sample. Workers should identify whether the caregivers have a history of maltreating behaviour and be aware that in the majority of cases, the abusive or neglectful behaviour will continue.

A second central finding identified in this research is the reality that children in families with chronic abuse or neglect problems are at serious risk of harm. In particular, the belief that chronic neglect situations are typified by mild severity levels is not supported by this data: 72% of the neglect cases recorded a current severity level of 3, 4 or 5. This demonstrates that actual or potential harm to the child should not be minimized with chronic neglect cases: the majority of these cases involve children being repeatedly exposed to very dangerous situations. Again, desensitization occurs with repeated incidents of high severity levels of maltreatment. Child welfare workers should consider chronic neglect cases as equally harmful to a child as chronic abuse. The absence of abuse does not necessarily mean a child is living in a safer environment.

A third major finding identified by this research is the existence of serious substance abuse problems with these caregivers. This may reflect a caregiver's maladaptive coping response to problems she or he experiences, or it may be due to problems of an organic source. Nevertheless, it is fundamental that this issue be addressed when intervening with families with chronic abuse/neglect problems. Unless the substance abuse problem is resolved, the child's needs will continue to take a secondary place to the addiction. The existence of an addiction problem in combination with a belief structure characterized by very little understanding of a

child's needs, results in inadequate caregiving: the addiction supersedes caregiving responsibilities, and children are left in dangerous situations.

It is irresponsible for service providers to place a substance abuse problem on equal footing with other family problems, and expect changes in caregiving to occur. If the caregiver has a substance abuse problem, immediate resources should be put in place to provide the caregiver with substance abuse treatment, and the family with support services. These caregivers must be confronted with the devastating effects the substance abuse has on their children's safety. Funding bodies should ensure that various agencies coordinate services to provide effective substance abuse treatment to these caregivers. The current system of placing children in and out of care is ineffective in improving family functioning and costly to the child welfare system. A more efficient use of funding dollars would be spent on providing these families with effective intervention focused on stopping the substance abuse problem. When caregivers are able to meet a child's needs, families remain the best option in which to raise children. Early, effective interventions that focus on ameliorating the substance abuse problem and ensuring safety to the child, would result in fewer incidents of chronic abuse/neglect and a higher number of intact families.

The results of the data analysis also suggest that chronic sexual abuse is a substantially different phenomenon than chronic physical abuse and neglect. Although dimensions vary for all three of the maltreatment types, different motivational forces, other than an addiction problem seem involved with sexual abuse. Substance abuse may act as a disinhibitor for an offender in this abuse type. A presence of a belief structure that objectifies children and subordinates a child's needs to those of the adult caregiver is characteristic of this offending behaviour. When intoxicated, the rationalization for sexually offending is more easily made. Treatment for substance abuse may be successful in terminating the substance

abuse, and consequently inhibit the offender from reoffending, but it will not necessarily terminate the source of the sexually abusive behaviour. Therefore, workers should provide treatment that addresses the motivational factors that precede sexual offending.

Other characteristics, while not reflecting the majority of chronic families, should be noted. If the caregiver has a mental health problem, intervention should be directed to treating that problem. Although the number of mental health cases appear to be low in frequency within this data sample, the presence of a mental health problem should serve as a signal to the worker that the abusive or neglectful caregiving may be caused by issues of a completely different nature than the majority of chronic cases. Again, treatment with these cases should focus on the source of the impediments to caregiving. Providing the family with parenting skills or other short term interventions would probably be of little use in terminating the maltreating behaviour.

Unfortunately, the identification of these characteristics and dimensions of maltreatment groups do not address the issue of primary and secondary causes of child maltreatment. In order to deal with root causes of child abuse and neglect, further research should focus on reasons or motivations that cause a caregiver to maltreat his/her child. The results of this research provides support to the three theoretical perspectives reviewed in this paper. It remains unknown however, whether the characteristics compared between the three groups are primary, secondary or even tertiary causes of the chronic maltreatment.

In summary, the existence and importance of the following factors should be evaluated when intervening with families with chronic maltreatment problems.

- **The family type.**
- **The pattern of abusive/neglectful behaviour.**
- **The existence of a caregiver's substance abuse problem.**

- **The existence of high stress levels and poor parenting knowledge and skills.**
- **The existence of additive problems: evidence of psychopathology/incapacity; violence; adolescent caregivers.**

These issues must be addressed as they are characteristic of chronic cases. If a pattern of maltreatment exists, the behaviour is likely to reoccur. In the majority of cases, after dealing with immediate child protection concerns, intervention should focus on confronting and ending the substance abuse problems. Based on these findings, the provision of child welfare services should include extensive substance abuse treatment services for these caregivers and their families.

In conclusion, this research demonstrates that characteristics are shared between, and differentiate between, families with chronic physical abuse problems, chronic sexual abuse problems and chronic neglect problems. Unless intervention meets the specific needs of these families, an improvement in caregiving will not be realized. The findings suggest that if obstacles to appropriate caregiving are overcome, caregiving patterns of families with chronic maltreatment problems will ameliorate.

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APPENDICES

Appendix A

Manitoba Guidelines on Identifying and Reporting a Child in Need of Protection (Including Child Abuse)

These revised guidelines incorporate amendments made to The Child and Family Services Act (The Act) in June 1989. The amendments were necessary to clarify and strengthen child protection legislation.

The guidelines are intended to assist professional and lay persons in carrying out their responsibilities under The Act to protect children through early identification and reporting. They reflect a strong commitment by the Manitoba Government to ensure children are protected through effective delivery and coordination of services.

The Ministers of Family Services, Education and Training, Health and Justice, have jointly issued these guidelines in recognition of the need for a multi-disciplinary team approach to respond to child protection and child abuse. They explain obligations under The Act to report a child in need of protection and outline the steps to be followed by the various disciplines involved in the investigation and management of child protection and child abuse cases.

There are four parts to the guidelines:

- **Part I: Child Protection**
Explains the meaning of "a child in need of protection" and the legal obligations to report a child in need of protection.
- **Part II: Child Abuse**
Discusses abuse as a major protection issue and the reasons for children needing protection.
- **Part III: Abuse Investigations**
Outlines procedures in the investigation of abuse cases.
- **Part IV: Disclosure**
Explains requirements for disclosing information about a situation involving a child in need of protection.

It is our hope that these guidelines will ensure the needs of children in need of protection are met and, wherever possible, families can be kept together with the continued support of all involved.

Original dated at the City of Winnipeg, in the Province of Manitoba this fourth day of December, 1989.

Minister of Family Services
and Training
Minister of Health

Minister of Education

Minister of Justice

Manitoba

Appendix B

Appendix 330A Manitoba Guidelines on Identifying and Reporting Child Abuse

Child abuse is a serious, growing and often self-perpetuating problem, which knows no social barriers. Violence in the family is often physically and always emotionally devastating, not only to the child but to the entire family.

Its identification, treatment and prevention require the close collaboration of child caring agencies, law enforcement units, health care workers, educators, and all whose concerns, whether professional or non-professional, touch upon and affect the lives of children.

Expressing a strong commitment to assist in the provision of a speedy, effective and broad range of services to child and families at risk, the Ministers of Community Services, Health, Education and the Attorney General jointly issue these Guidelines on Child Abuse. Their purpose is to provide a procedural and legal framework for the investigation, detection and management of child abuse cases to the growing community of professionals and lay persons providing services to children and their families.

Definitions:

The following definitions apply for the purpose of these guidelines, which are primarily intended for child abuse within the family:

1. "**Abuse**" means an act of commission by the parent, guardian or person in whose care a child is which results in:
 - i) physical injury to the child,
 - ii) emotional disability of a permanent nature in the child or is likely to result in such a disability, or
 - iii) sexual exploitation of the child with or without the child's consent.
2. "**Physical abuse**" means an act or omission by the parent, guardian or person in whose care a child is, which act or omission results in harm to the child. It includes, but is not necessarily restricted to: physical beating and failure to provide reasonable protection for the child from physical harm.
3. "**Sexual abuse**" means any exploitation of a child, whether consensual or not, for the sexual gratification of a parent or person in whose care a child is and includes, but is not necessarily restricted to: sexual molestation, sexual assault, and the exploitation of the child for purposes of pornography or prostitution.

Sexual abuse includes "incest." Incest is a crime under the Criminal Code of Canada. Therefore, the involvement and participation of the local police force are essential in all child sexual abuse investigations.

Sexual activity between children may constitute sexual abuse if the differences in ages between the children are so significant that the older is clearly taking

sexual advantage of the younger.

4. **"Emotional abuse"** means acts or omissions on the part of the parent or person in whose care a child is, which acts or omissions include but are not restricted to:
- (a) any unwillingness or inability to provide appropriate care, control, affection or stimulation for a child;
 - (b) making inappropriate demands upon a child;
 - (c) exposing a child to frequent family violence tending to produce permanent or long-term emotional disability, including:
 - i) non-organic failure to thrive;
 - ii) developmental retardation;
 - iii) serious anxiety, depression or withdrawal;
 - iv) serious behavioral disturbances.

Emotional abuse remains a major concern but does not require police intervention. Nevertheless, a multi-disciplinary team approach may be essential in certain emotional abuse cases.

5. **"A person In whose care a child is"** means a person in a position of trust who is responsible for a child's welfare and includes a person within the context of a family relationship or foster parent.
6. **"Third party assault"** means abuse that occurs outside the family and technically does not fall within the guidelines but, nevertheless, is subject to:
- (a) police investigation;
 - (b) referral to an appropriate agency for service;
 - (c) reporting of the incident to the central abuse registry.
7. **"Child"** means a person under the age of majority. (In Manitoba the age of majority is 18).
8. **"Agency"** means:
- i) a child and family services agency incorporated under the Child and Family Services Act,
 - ii) a regional office of the department of Community Services; and
 - iii) a corporation created pursuant to an agreement under subsection 6(14) of the Act (a Native child and family services agency).
9. **"Medical child abuse unit"** means professionals within a hospital setting who are specifically responsible for handling suspected or alleged child abuse cases.

It is expected that the management of child abuse cases within a hospital setting will be from an inter-disciplinary perspective and that a hospital child abuse team will therefore be a member of the regional or community team/committee, which includes the local child and family services agency, law enforcement and medical/health personnel.

Guidelines:

1. Any person suspecting child abuse shall report it immediately to a child and family services agency, the police or a medical child abuse unit.
2. (a) Where a report of suspected or alleged child abuse is received by a child and family services agency, the agency will consult immediately with the local police force;

(b) Where a report of suspected or alleged child abuse is received by the local police force, the police will consult immediately with the appropriate child and family services agency;

(c) Where a report of suspected or alleged child abuse is received by a hospital or other medical health centre with a recognized medical child abuse unit, the hospital/centre will report the incident to the appropriate child and family services agency and local police force immediately, and;

(d) Where a report of suspected or alleged child abuse is received by a hospital or medical health centre without a recognized medical child abuse unit, the hospital/centre will immediately report the incident to the appropriate child and family services agency, the local police force or the nearest recognized medical child abuse centre.
3. To ensure that the best course of action is taken in every case, there shall be a mutual sharing of all relevant information by the agencies and professionals involved in the investigation and treatment process.
4. The protection of the child is the responsibility of all persons involved. The child and family services agency, however, has the mandate to protect the child as provided for in the **Child and Family Services Act** (Manitoba), with guidance from the professional team members where a recognized medical child abuse unit exists.
5. Every child and family services agency which receives information about the suspected or alleged abuse of a child, including a child in the care of the agency, shall report the information to the director of child and family services, as required by the **Child and Family Services Act** (Manitoba) in the manner and form set out in the regulations.

In addition to the mandatory requirement for any agency to report, the **Child and Family Services Act** (Manitoba) states any person, including a professional, who has information that a child may be in need of protection, shall report immediately to the Director or an agency and that failure to do so

may be subject to legal and/or professional action.

6. The office of the Director of Child and Family Services shall issue statistical and descriptive data, as extracted from agency reports of suspected or alleged child abuse. A regular review of all abused children reported to the director shall be required in the manner and form set out by the director. This will ensure the sound disposition of each case, the continuity of service and ultimately, the safety of all abused children or children at risk in the province.
7. Each child and family services agency should inform the reporter of suspected or alleged abuse of action taken on the report at the earliest appropriate time.
8. In all cases of physical or sexual abuse, the Crown Attorney shall determine whether to lay charges upon completion of the preliminary investigation by the child abuse team.

In circumstances where the seriousness and urgency of the case dictates, charges will be laid without prior consultation. It is expected, however that subsequently there will be ongoing consultation from the initial reporting to the final disposition.

It is our hope that this multidisciplinary team approach will ensure that the needs of abused children are met, that their rights are protected and that, wherever possible, families can be kept together with the continued support of all involved.

Original dated at the City of Winnipeg, in the Province of Manitoba, on the 13th day of April, 1984.

Revisions dated at the City of Winnipeg, in the Province of Manitoba, this 29th day of January, 1988.

Minister of community services

Attorney General

Minister of Health

Minister of Education

MG-15248

Appendix C

M.R.E.S. FACESHEET

FILE NUMBER: _____ **DATE OF REPORT:** _____

AGENCY LOCATION: _____ **DATE OF INCIDENT:** _____
 (Please circle code for agency)

Manitoba: CA EA NW SW JCFS CM CH WM ACFS
 AWAS DO
 CN ICFS SE WR ER IR NR PR TR STOR
 SAG

CASE TYPE: 1. Intake; a) New b) Reopen 2. Ongoing

CHILD: **GENDER:** M F
AGE: _____
 (Primary focus of assessment)

ABUSE/NEGLECT TYPE: Sexual Abuse Physical Abuse Emotional Abuse Neglect
 (Please circle)

CHARACTERISTICS OF ABUSE/NEGLECT INCIDENT: _____

FAMILY TYPE: Law Father (Please circle) Mother)	A Biological Parents	B Single Biological Parent (Mother)	C Common (Biological)
D Adoptive Parents Law Mother Father)	E Foster Parents	F Blended (Common Law)	G Common (Biological)
H Extended Family Parent (Grandmother)	I Extended Family (Grandparents)	J Single Adoptive Parent (Mother)	K Single Foster (Female)
L Single Foster Parent Caregiver (Male) Brother)	M Blended	N Foster Parents (Informal)	O Sibling (Sister or
P Single Foster Parent Adoptive Parent Mother)	Q Step Father (Biological Father)	R Step Mother (Informal) (Father)	S Single (Biological)
T Single Biological Parent Family	U Extended Family	V Extended Family	W Extended

(Father)	(Grandfather)	(Cousin - Female)	(Cousin - Male)
X Extended Family Family (Cousin - Male & Female) (Aunt)	Y Extended Family (Uncle)	Z Extended Family (Aunt & Uncle)	AA Extended
BB Biological Mother (Same Sex Partner) Partners)	DD Adoptive Parents (Same Sex Partners)	EE Foster Parents (Same Sex Partners)	FF Blended (Same Sex
TT Biological Father (Same Sex Partner)	Please specify if necessary: _____		

	<u>ADULT A</u>	<u>ADULT B</u>
Relationship to child:	_____	_____
Age:	_____	_____
Gender:	M F	M F

OTHER CHILD(REN): Type of Abuse/Neglect (Please circle)

	Gender	Age			
1.	M F	_____	Sexual	Physical	Emotional
2.	M F	_____	Sexual	Physical	Emotional
3.	M F	_____	Sexual	Physical	Emotional

OTHER RELEVANT PARTICIPANTS: I II

Relationship to Child:	_____	_____
Age:	_____	_____
Gender:	M F	M F

ALLEGED PERPETRATOR INFORMATION:

		Gender:	M	F
		(Please circle)		
		Age:	_____	
Relationship to child:	Parent	Please specify relationship:	_____	
	Sibling	Please specify relationship:	_____	
	Relative	Please specify relationship:	_____	

Other **Please specify relationship:** _____

Appendix D

M.R.E.S.

A. VULNERABILITY

- | | | | | |
|----------------------------------|----|---|----|---|
| (1). Access By Perpetrator: | VL | M | VH | ? |
| (2). Child Able To Protect Self: | VL | M | VH | ? |
| (3). Adequate Protector Present: | VL | M | VH | ? |

A. The Vulnerability rating is:

VERY LOW

MEDIUM

VERY HIGH

I. ATTRIBUTES OF THE CURRENT INCIDENT

- | | | | | | | | |
|---|----|----|---|---|---|----|---|
| (4). Actual/Potential Severity of Injury: | NA | VL | L | M | H | VH | ? |
| (5). >1 Abuse/Neglect Type: | NA | | | M | | VH | ? |

I. Contribution to Risk: NA VL L M H VH ?

Adult A

Adult B

Name: _____

II. ABUSE/NEGLECT PATTERN

- | | | | | | | | | | | | | | | |
|-----------------------------------|----|----|---|---|---|----|---|----|----|---|---|---|----|---|
| (4). Severity (Current Incident): | NA | VL | L | M | H | VH | ? | NA | VL | L | M | H | VH | ? |
| (6). Severity (Prior Incidents): | NA | VL | L | M | H | VH | ? | NA | VL | L | M | H | VH | ? |
| (7). Recency (Prior Incidents): | NA | VL | L | M | H | VH | ? | NA | VL | L | M | H | VH | ? |
| (8). Frequency (Lifetime): | NA | VL | L | M | H | VH | ? | NA | VL | L | M | H | VH | ? |
| (9). Severity (Trend): | NA | D | C | I | | | ? | NA | D | C | I | | | ? |
| (10). Frequency (Trend): | NA | D | C | I | | | ? | NA | D | C | I | | | ? |

II. Contribution To Risk: NA VL L M H VH ? NA VL L M H VH ?

III. UNDERSTANDING OF THE CHILD

- (11). Perception of the Incident: NA P VL L M H VH ? NA P VL L M H VH ?
(12). Perception of the Child: P VL L M H VH ? P VL L M H VH ?
(13). Attachment: P VL L M H VH ? P VL L M H VH ?
(14). Attitude Re: Discipline: P VL L M H VH ? P VL L M H VH ?
(15). Parenting Knowledge & Skills: P VL L M H VH ? P VL L M H VH ?

III. Contribution To Risk: NA P VL L M H VH ? NA P VL L M H VH ?

IV. PERSONAL CHARACTERISTICS

- (16). Age: NA M VH ? NA M VH ?
(17). Substance Abuse: NA VL L M H VH ? NA VL L M H VH ?
(18). Psychopathology/Incapacity: NA VL L M H VH ? NA VL L M H VH ?
(19). History of Violence: NA VL L M H VH ? NA VL L M H VH ?
(20). Stress: NA VL L M H VH ? NA VL L M H VH ?

IV. Contribution To Risk: NA VL L M H VH ? NA VL L M H VH ?

V. FAMILY INTERACTION

- (21). Conflict/Support: NA P VL L M H VH ?
(22). Reinforcement: NA P VL L M H VH ?
(23). Siblings: NA P VL L M H VH ?

V. Contribution to Risk: NA P VL L M H VH ?

VI. RELATIONSHIP TO THE COMMUNITY

- (24). Reference Group Values: NA P VL L M H VH ? NA P VL L M H VH ?
(25). Social Isolation: P VL L M H VH ? P VL L M H VH ?

VI. Contribution To Risk: NA P VL L M H VH ? NA P VL L M H VH ?

SUMMARY

(A). VULNERABILITY ESTIMATE

VERY LOW

MEDIUM

VERY HIGH

(B) REOCCURRENCE ESTIMATE

(I). ATTRIBUTES OF THE CURRENT INCIDENT:	N.A.		VL	L	M	H	VH	?
(II). ABUSE/NEGLECT PATTERN	(A):	N.A.	VL	L	M	H	VH	?
	(B):	N.A.	VL	L	M	H	VH	?
(III). UNDERSTANDING OF THE CHILD	(A):	N.A.	P VL	L	M	H	VH	?
	(B):	N.A.	P VL	L	M	H	VH	?
(IV). PERSONAL CHARACTERISTICS	(A):	N.A.	VL	L	M	H	VH	?
	(B):	N.A.	VL	L	M	H	VH	?
(V). FAMILY INTERACTION:		N.A.	P VL	L	M	H	VH	?
(VI). RELATIONSHIP TO THE COMMUNITY	(A):	N.A.	P VL	L	M	H	VH	?
	(B):	N.A.	P VL	L	M	H	VH	?

(B). The risk of the future occurrence of an incident of abuse or neglect is:

VERY LOW LOW MEDIUM HIGH VERY HIGH ?

(C) SEVERITY ESTIMATE

(4). CURRENT INCIDENT (SEVERITY):	N.A.		VL	L	M	H	VH	?
(9). TREND (SEVERITY) (A):	N.A.		Decreasing		Constant		Increasing	?
(9). TREND (SEVERITY) (B):	N.A.		Decreasing		Constant		Increasing	?
(B). RISK OF REOCCURRENCE RATING:			VL	L	M	H	VH	?

(C). The probable severity of a future occurrence of an incident of abuse or neglect is:

VERY LOW LOW MEDIUM HIGH VERY HIGH ?

CONCLUSION & EXPLANATION: _____

Worker: _____ Date: _____ 19____

Supervisor: _____ Date: _____ 19____

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Appendix E

Inter-rater Scores on Practice Case*

Rater	A	B	C	D	E	Mean	Median	Mode	Max.	Min.	Range	Std. Dev.
A1	5	5	5	5	5	5	5	5	5	5	0	0
A2	5	5	5	5	5	5	5	5	5	5	0	0
A3	5	5	5	5	5	5	5	5	5	5	0	0
I	5	5	5	5	5	5	5	5	5	5	0	0
4	5	4	4	4	5	4.4	4	4	5	4	1	0.55
5	•	3	3	0	3	2.25	3	3	3	0	3	1.5
I	5	4	4	4	5	4.4	4	4	5	4	1	0.55
A4	5	4	4	4	5	4.4	4	4	5	4	1	0.55
A6	3	4	4	4	4	3.8	4	4	4	3	1	0.45
A7	5	5	5	5	5	5	5	5	5	5	0	0
A8	5	5	5	5	4	4.8	5	5	5	4	1	0.45
A9	3	3	3	3	•	3	3	3	3	3	0	0
A10	5	3	3	3	•	3.5	3	3	5	3	2	1
All	5	5	5	5	5	5	5	5	5	5	0	0
B4	5	4	4	4	5	4.4	4	4	5	4	1	0.55
B6	4	4	4	4	4	4	4	4	4	4	0	0
B7	5	5	5	5	5	5	5	5	5	5	0	0
B8	5	5	5	5	4	4.8	5	5	5	4	1	0.45
B9	5	3	3	3	•	3.5	3	3	5	3	2	1
B10	5	3	3	3	•	3.5	3	3	5	3	2	1
BII	5	5	5	5	5	5	5	5	5	5	0	0
A11	3	•	3	2	4	3	3	3	4	2	2	0.82
A12	5	•	4	3	4	4	4	4	5	3	2	0.82
A13	5	2	3	3	•	3.25	3	3	5	2	3	1.26
A14	•	4	•	2	•	3	3	•	4	2	2	1.41
A15	4	4	5	4	4	4.2	4	4	5	4	1	0.45
AIII	5	4	4	3	4	4	4	4	5	3	2	0.71
B11	3	•	3	2	4	3	3	3	4	2	2	0.82
B12	5	•	4	3	4	4	4	4	5	3	2	0.82
B13	•	2	2	3	•	2.33	2	2	3	2	1	0.58

B14	5	4	5	2	5	4.2	5	5	5	2	3	1.3
B15	4	4	5	4	5	4.4	4	4	5	4	1	0.55
BIII	5	4	4	3	5	4.2	4	5	5	3	2	0.84
A16	0	0	0	0	0	0	0	0	0	0	0	0
A17	5	5	5	5	5	5	5	5	5	5	0	0
A18	•	•	0	3	0	1	0	0	3	0	3	1.73
A19	0	5	5	•	5	3.75	5	5	5	0	5	2.5
A20	5	5	5	5	5	5	5	5	5	5	0	0
AIV	4	5	5	5	5	4.8	5	5	5	4	1	0.45
B16	0	0	0	0	0	0	0	0	0	0	0	0
B17	5	•	5	5	5	5	5	5	5	5	0	0
B18	0	5	2	3	•	2.5	2.5	•	5	0	5	2.08
B19	5	•	5	4	5	4.75	5	5	5	4	1	0.5
B20	•	5	5	4	5	4.75	5	5	5	4	1	0.5
BIV	5	5	5	5	5	5	5	5	5	5	0	0
21	5	5	4	5	5	4.8	5	5	5	4	1	0.45
22	5	5	5	5	5	5	5	5	5	5	0	0
23	-1	1	2	•	•	0.67	1	•	2	-1	3	1.53
AV	5	5	5	5	5	5	5	5	5	5	0	0
A24	3	5	•	•	0	2.67	3	•	5	0	5	2.52
A25	3	1	5	5	3	3.4	3	3	5	1	4	1.67
AVI	4	•	5	5	3	4.25	4.5	5	5	3	2	0.96
B24	3	•	3	•	0	2	3	3	3	0	3	1.73
B25	3	2	5	5	3	3.6	3	3	5	2	3	1.34
BVI	4	•	5	5	3	4.25	4.5	5	5	3	2	0.96
(B)	5	5	5	5	5	5	5	5	5	5	0	0
(C)	5	5	4	5	5	4.8	5	5	5	4	1	0.45

* Dots represent cell values of 9.

Appendix F

Descriptive Statistics of Chronic Data Set

Variables	N	N Missing	Min.	Max.	Std. Dev.	Mean
N(Loc.)	1291	2	1	4	1.13	1.95
N(New)	1246	47	0	1	0.32	0.12
N(Reo.)	1247	46	0	1	0.47	0.33
N(On.)	1291	2	0	1	0.50	0.57
N(M/F)	1257	36	1	2	0.50	1.54
N(Age)	1267	26	0.04	17	3.84	5.20
N(S.)	1293	0	0	1	0.16	0.03
N(P.)	1293	0	0	1	0.25	0.07
N(N.)	1293	0	0	1	0.29	0.91
N(F.T.)	1293	0	1	41	4.23	3.13
N(ARel.)	1293	0	1	27	2.57	1.55
N(AAge)	967	326	15	62	6.83	29.22
N(AM/F)	1290	3	1	2	0.33	1.87
N(BRel.)	902	391	1	41	5.26	3.02
N(BAge)	246	1047	19	49	6.69	31.07
N(BM/F)	900	393	1	2	0.40	1.19
N(1M/F)	1106	187	1	2	0.50	1.52
N(1Age)	1093	200	0	22	3.81	6.29
N(1S.)	954	339	0	1	0.12	0.01
N(1P.)	954	339	0	1	0.19	0.04
N(1N.)	953	340	0	1	0.27	0.92
N(2M/F)	783	510	1	2	0.50	1.50
N(2Age)	772	521	0.05	24	3.70	5.62
N(2S.)	670	623	0	1	0.09	0.01
N(2P.)	670	623	0	1	0.13	0.02
N(2N.)	670	623	0	1	0.25	0.93
N(3M/F)	424	869	1	2	0.50	1.53
N(3Age)	425	868	0.04	27	4.54	5.85
N(3S.)	356	937	0	1	0.11	0.01
N(3P.)	356	937	0	1	0.16	0.03
N(3N.)	356	937	0	1	0.23	0.95
N(4M/F)	194	1099	1	2	0.50	1.44
N(4Age)	195	1098	0.25	28	5.21	6.47
N(4S.)	154	1139	0	0	0.00	0.00
N(4P.)	154	1139	0	0	0.00	0.00
N(4N.)	154	1139	0	1	0.19	0.96
N(R.P.A)	162	1131	1	48	11.30	19.50
N(R.P.Aage)	30	1263	12	76	22.68	35.30
N(R.P.Agender)160		1133	1	2	0.50	1.43
N(R.P.B)	47	1246	1	38	10.36	18.98
N(R.P.Bage)	0	1293	•	•	•	•
N(R.P.Bgender)45		1248	1	2	0.45	1.27
N(Perp.1)	25	1268	1	2	0.48	1.32
N(Perp.2)	13	1280	14	43	9.39	30.62
N(Perp.3)	24	1269	1	44	17.29	22.71
N(1)	1289	4	3	5	0.11	4.99
N(2)	1280	13	1	5	1.10	4.42

Variables	N	N Missing	Min.	Max.	Std.Dev.	Mean
N(3)	1289	4	1	5	0.95	4.64
N(A)	1292	1	1	5	0.56	4.84
N(4)	1293	0	1	5	1.17	4.07
N(5)	1271	22	0	4	0.55	0.10
N(I)	1284	9	0	5	1.17	4.06
N(A4)	1286	7	0	5	1.32	3.97
N(A6)	1167	126	0	5	1.76	3.87
N(A7)	1151	142	0	5	1.82	3.36
N(A8)	1152	141	0	5	1.85	3.28
N(A9)	1089	204	0	5	1.20	2.67
N(A10)	1012	281	0	5	1.30	2.67
N(AII)	1274	19	0	5	0.98	4.31
N(A11)	1050	243	-1	5	1.15	4.12
N(A12)	1015	278	-1	5	1.05	3.92
N(A13)	690	603	-1	5	1.35	2.87
N(A14)	217	1076	-1	5	1.64	3.24
N(A15)	1217	76	-1	5	0.76	4.54
N(AIII)	1252	41	-1	5	0.89	4.26
N(A16)	1230	63	0	5	0.92	0.25
N(A17)	1145	148	0	5	1.59	4.23
N(A18)	1188	105	0	5	0.94	0.22
N(A19)	854	439	0	5	2.10	1.41
N(A20)	1202	91	0	5	0.65	4.61
N(AIV)	1243	50	0	5	0.70	4.67
N(A24)	650	643	-1	5	0.90	4.41
N(A25)	872	421	-1	5	1.03	3.63
N(AVI)	1015	278	-1	5	0.95	4.10
N(B4)	501	792	0	5	1.18	4.05
N(B6)	424	869	0	5	1.98	3.53
N(B7)	417	876	0	5	2.04	3.04
N(B8)	412	881	0	5	1.96	2.70
N(B9)	378	915	0	5	1.53	2.42
N(B10)	354	939	0	5	1.61	2.40
N(BII)	496	797	0	5	1.05	4.25
N(B11)	347	946	-1	5	1.19	4.19
N(B12)	325	968	-1	5	1.04	4.13
N(B13)	180	1113	-1	5	1.49	3.23
N(B14)	114	1179	-1	5	1.07	4.37
N(B15)	453	840	-1	5	0.70	4.59
N(BIII)	462	831	-1	5	0.77	4.37
N(B16)	433	860	0	5	0.56	0.10
N(B17)	442	851	0	5	1.69	4.21
N(B18)	477	816	0	5	0.60	0.09
N(B19)	362	931	0	5	2.22	3.09
N(B20)	449	844	0	5	0.81	4.56
N(BIV)	503	790	0	5	0.78	4.65
N(B24)	175	1118	3	5	0.60	4.60
N(B25)	240	1053	1	5	1.00	3.65
N(BVI)	322	971	1	5	0.93	4.08

Variables	N	N Missing	Min.	Max.	Std.Dev.	Mean
N(21)	459	834	-1	5	0.84	4.38
N(22)	494	799	-1	5	1.04	4.55
N(23)	291	1002	-1	5	1.81	1.89
N(V)	710	583	-1	5	1.23	4.02
N(A2)	1293	0	0	5	0.58	4.84
N(I2)	1287	6	0	5	1.18	4.06
N(IIA)	1275	18	0	5	0.99	4.30
N(IIB)	1252	41	0	5	2.18	1.68
N(IIIA)	1252	41	-1	5	0.89	4.26
N(IIIB)	1218	75	-1	5	2.18	1.66
N(IVA)	1243	50	0	5	0.70	4.6
N(IVB)	1259	34	0	5	2.33	1.86
N(V2)	1033	260	-1	5	2.12	2.76
N(VIA)	1015	278	-1	5	0.95	4.10
N(VIB)	1078	215	0	5	1.94	1.22
N(B)	1284	9	2	5	0.65	4.54
N(42)	1293	0	1	5	1.17	4.07
N(9A)	1089	204	0	5	1.20	2.67
N(9B)	1135	158	0	5	1.44	0.81
N(B2)	1287	6	0	5	0.69	4.53
N(C)	1283	10	1	5	0.84	4.34

Appendix G

Descriptive Statistics of Neglect Data Set

Variables	N	N Missing	Min.	Max.	Std.Dev.	Mean
N(Loc.)	1171	1	1	4	1.12	1.92
N(New)	1127	45	0	1	0.32	0.12
N(Reo.)	1128	44	0	1	0.47	0.33
N(On.)	1170	2	0	1	0.49	0.57
N(M/F)	1139	33	1	2	0.50	1.54
N(Age)	1147	25	0.04	17	3.74	4.98
N(S.)	1172	0	0	0	0.00	0.00
N(P.)	1172	0	0	0	0.00	0.00
N(N.)	1172	0	1	1	0.00	1.00
N(F.T.)	1172	0	1	7	0.74	2.06
N(ARel.)	1172	0	1	26	1.75	1.27
N(AAge)	886	286	15	62	6.71	29.09
N(AM/F)	1169	3	1	2	0.33	1.87
N(BRel.)	793	379	1	41	4.77	2.58
N(BAge)	216	956	19	49	6.53	30.69
N(BM/F)	792	380	1	2	0.40	1.20
N(1M/F)	1015	157	1	2	0.50	1.53
N(1Age)	1007	165	0	22	3.77	6.19
N(1S.)	902	270	0	1	0.05	0.00
N(1P.)	902	270	0	1	0.08	0.01
N(1N.)	901	271	0	1	0.18	0.97
N(2M/F)	736	436	1	2	0.50	1.51
N(2Age)	727	445	0.05	24	3.70	5.63
N(2S.)	649	523	0	1	0.06	0.00
N(2P.)	649	523	0	1	0.07	0.00
N(2N.)	649	523	0	1	0.20	0.96
N(3M/F)	395	777	1	2	0.50	1.55
N(3Age)	395	777	0.04	27	4.42	5.71
N(3S.)	341	831	0	0	0.00	0.00
N(3P.)	341	831	0	1	0.11	0.01
N(3N.)	341	831	0	1	0.14	0.98
N(4M/F)	188	984	1	2	0.50	1.45
N(4Age)	188	984	0.25	28	5.12	6.32
N(4S.)	152	1020	0	0	0.00	0.00
N(4P.)	152	1020	0	0	0.00	0.00
N(4N.)	152	1020	0	1	0.16	0.97
N(R.P.A)	144	1028	1	48	11.20	20.01
N(R.P.Aage)	23	1149	13	76	24.53	38.74
N(R.P.Agender)	142	1030	1	2	0.50	1.44
N(R.P.B)	44	1128	3	38	10.18	19.61
N(R.P.Bage)	0	1172	•	•	•	•
N(R.P.Bgender)	42	1130	1	2	0.43	1.24
N(Perp.1)	9	1163	1	2	0.33	1.89
N(Perp.2)	7	1165	31	35	1.41	33.00
N(Perp.3)	8	1164	2	39	14.38	9.50

Variables	N	N Missing	Min.	Max.	Std.Dev.	Mean
N(1)	1168	4	3	5	0.12	4.99
N(2)	1159	13	1	5	1.11	4.41
N(3)	1168	4	1	5	0.96	4.63
N(A)	1171	1	1	5	0.58	4.83
N(4)	1172	0	1	5	1.18	3.97
N(5)	1150	22	0	4	0.52	0.09
N(I)	1163	9	0	5	1.18	3.97
N(A4)	1166	6	0	5	1.31	3.91
N(A6)	1053	119	0	5	1.73	3.89
N(A7)	1038	134	0	5	1.80	3.40
N(A8)	1037	135	0	5	1.82	3.29
N(A9)	976	196	0	5	1.16	2.68
N(A10)	911	261	0	5	1.26	2.70
N(AII)	1155	17	0	5	0.97	4.27
N(A11)	947	225	-1	5	1.16	4.06
N(A12)	912	260	-1	5	1.04	3.84
N(A13)	662	510	-1	5	1.33	2.84
N(A14)	200	972	-1	5	1.63	3.19
N(A15)	1101	71	-1	5	0.72	4.53
N(AIII)	1135	37	-1	5	0.88	4.23
N(A16)	1113	59	0	5	0.91	0.24
N(A17)	1032	140	0	5	1.56	4.25
N(A18)	1074	98	0	5	0.89	0.21
N(A19)	769	403	0	5	2.08	1.38
N(A20)	1090	82	0	5	0.66	4.62
N(AIV)	1130	42	0	5	0.69	4.67
N(A24)	597	575	-1	5	0.93	4.39
N(A25)	798	374	-1	5	1.05	3.61
N(AVI)	919	253	-1	5	0.98	4.08
N(B4)	448	724	0	5	1.20	3.94
N(B6)	378	794	0	5	1.99	3.49
N(B7)	371	801	0	5	2.04	3.02
N(B8)	366	806	0	5	1.96	2.72
N(B9)	333	839	0	5	1.49	2.36
N(B10)	312	860	0	5	1.58	2.35
N(BII)	446	726	0	5	1.08	4.18
N(B11)	311	861	-1	5	1.22	4.13
N(B12)	287	885	-1	5	1.06	4.05
N(B13)	165	1007	-1	5	1.46	3.12
N(B14)	106	1066	-1	5	1.04	4.36
N(B15)	413	759	-1	5	0.72	4.56
N(BIII)	420	752	-1	5	0.79	4.33
N(B16)	386	786	0	5	0.60	0.11
N(B17)	400	772	0	5	1.73	4.16
N(B18)	425	747	0	5	0.63	0.10
N(B19)	318	854	0	5	2.25	3.00
N(B20)	400	772	0	5	0.83	4.57
N(BIV)	453	719	0	5	0.80	4.64
N(B24)	156	1016	3	5	0.60	4.58
N(B25)	220	952	1	5	1.02	3.63
N(BVI)	287	885	1	5	0.95	4.05
N(21)	412	760	-1	5	0.86	4.34

Variables	N	N Missing	Min.	Max.	Std.Dev.	Mean
N(22)	445	727	-1	5	1.00	4.56
N(23)	274	898	-1	5	1.82	1.82
N(V)	644	528	-1	5	1.24	3.99
N(A2)	1172	0	0	5	0.60	4.83
N(I2)	1166	6	0	5	1.20	3.96
N(IIA)	1156	16	0	5	0.98	4.27
N(IIB)	1134	38	0	5	2.15	1.64
N(IIIA)	1135	37	-1	5	0.88	4.23
N(IIIB)	1108	64	-1	5	2.16	1.64
N(IVA)	1130	42	0	5	0.69	4.67
N(IVB)	1141	31	0	5	2.33	1.84
N(V2)	927	245	-1	5	2.11	2.77
N(VIA)	919	253	-1	5	0.98	4.08
N(VIB)	975	197	0	5	1.92	1.19
N(B)	1163	9	2	5	0.67	4.50
N(42)	1172	0	1	5	1.18	3.97
N(9A)	976	196	0	5	1.16	2.68
N(9B)	1022	150	0	5	1.39	0.77
N(B2)	1166	6	0	5	0.71	4.49
N(C)	1163	9	1	5	0.85	4.27

Appendix H
Descriptive Statistics of Physical Abuse Data Set

Variables	N	N Missing	Min.	Max.	Std.Dev.	Mean
N(Loc.)	86	1	1	4	1.22	2.30
N(New)	85	2	0	1	0.31	0.11
N(Reo.)	85	2	0	1	0.49	0.39
N(On.)	87	0	0	1	0.50	0.52
N(M/F)	84	3	1	2	0.49	1.39
N(Age)	87	0	0.08	17	4.36	6.93
N(S.)	87	0	0	0	0.00	0.00
N(P.)	87	0	1	1	0.00	1.00
N(N.)	87	0	0	0	0.00	0.00
N(F.T.)	87	0	4	17	4.35	9.94
N(ARel.)	87	0	1	18	5.66	4.67
N(AAge)	64	23	18	55	7.99	29.44
N(AM/F)	87	0	1	2	0.31	1.90
N(BRel.)	78	9	1	17	4.58	3.51
N(BAge)	20	67	22	43	7.62	31.70
N(BM/F)	78	9	1	2	0.36	1.15
N(1M/F)	67	20	1	2	0.46	1.30
N(1Age)	66	21	0.08	21	3.79	6.87
N(1S.)	38	49	0	0	0.00	0.00
N(1P.)	38	49	0	1	0.45	0.74
N(1N.)	38	49	0	1	0.41	0.21
N(2M/F)	33	54	1	2	0.50	1.42
N(2Age)	32	55	1	18	3.79	5.50
N(2S.)	14	73	0	0	0.00	0.00
N(2P.)	14	73	0	1	0.50	0.64
N(2N.)	14	73	0	1	0.43	0.21
N(3M/F)	18	69	1	2	0.38	1.17
N(3Age)	19	68	1	21	6.09	6.95
N(3S.)	9	78	0	0	0.00	0.00
N(3P.)	9	78	0	1	0.53	0.56
N(3N.)	9	78	0	1	0.33	0.11
N(4M/F)	4	83	1	2	0.50	1.25
N(4Age)	5	82	1	13	4.55	7.80
N(4S.)	2	85	0	0	0.00	0.00
N(4P.)	2	85	0	0	0.00	0.00
N(4N.)	2	85	0	0	0.00	0.00
N(R.P.A)	11	76	1	26	9.90	14.55
N(R.P.Aage)	3	84	19	27	4.62	21.67
N(R.P.Agender)	11	76	1	2	0.50	1.36
N(R.P.B)	2	85	7	21	9.90	14.00
N(R.P.Bage)	0	87	.	.	.	.
N(R.P.Bgender)	2	85	1	2	0.71	1.50
N(Perp.1)	5	82	1	1	0.00	1.00
N(Perp.2)	2	85	43	43	0.00	43.00
N(Perp.3)	5	82	1	44	23.19	26.40
N(1)	87	0	5	5	0.00	5.00

Variables	N	N Missing	Min.	Max.	Std.Dev.	Mean
N(2)	87	0	1	5	1.04	4.63
N(3)	87	0	3	5	0.64	4.77
N(A)	87	0	5	5	0.00	5.00
N(4)	87	0	5	5	0.00	5.00
N(5)	87	0	0	0	0.00	0.00
N(I)	87	0	5	5	0.00	5.00
N(A4)	87	0	0	5	1.06	4.74
N(A6)	86	1	0	5	2.07	3.67
N(A7)	86	1	0	5	2.02	3.05
N(A8)	86	1	0	5	2.06	2.98
N(A9)	86	1	0	5	1.47	2.47
N(A10)	79	8	0	5	1.47	2.37
N(AII)	87	0	0	5	1.10	4.66
N(A11)	74	13	3	5	0.56	4.78
N(A12)	75	12	3	5	0.58	4.72
N(A13)	10	77	2	5	1.43	3.50
N(A14)	3	84	5	5	0.00	5.00
N(A15)	83	4	2	5	0.70	4.69
N(AIII)	84	3	3	5	0.58	4.70
N(A16)	85	2	0	5	1.20	0.47
N(A17)	81	6	0	5	1.67	4.30
N(A18)	81	6	0	5	1.32	0.37
N(A19)	64	23	0	5	2.26	1.45
N(A20)	84	3	4	5	0.49	4.61
N(AIV)	83	4	2	5	0.73	4.75
N(A24)	42	45	3	5	0.55	4.52
N(A25)	58	29	2	5	0.64	3.90
N(AVI)	75	12	3	5	0.59	4.25
N(B4)	33	54	4	5	0.24	4.94
N(B6)	29	58	0	5	1.93	4.07
N(B7)	29	58	0	5	2.13	3.38
N(B8)	29	58	0	5	1.80	2.38
N(B9)	29	58	0	5	1.62	2.55
N(B10)	29	58	0	5	1.68	2.62
N(BII)	30	57	5	5	0.00	5.00
N(B11)	20	67	2	5	0.75	4.65
N(B12)	22	65	3	5	0.79	4.64
N(B13)	5	82	2	5	1.34	4.40
N(B14)	0	87	.	.	.	.
N(B15)	24	63	3	5	0.51	4.79
N(BIII)	25	62	3	5	0.50	4.80
N(B16)	29	58	0	0	0.00	0.00
N(B17)	27	60	5	5	0.00	5.00
N(B18)	33	54	0	0	0.00	0.00
N(B19)	28	59	0	5	1.85	3.79
N(B20)	32	55	4	5	0.47	4.69
N(BIV)	32	55	4	5	0.40	4.81
N(B24)	14	73	4	5	0.36	4.86
N(B25)	11	76	3	5	0.60	3.82
N(BVI)	23	64	3	5	0.59	4.52
N(21)	36	51	3	5	0.58	4.69
N(22)	30	57	3	5	0.37	4.93

Variables	N	N Missing	Min.	Max.	Std.Dev.	Mean
N(23)	8	79	3	3	0.00	3.00
N(V)	46	41	3	5	0.84	4.46
N(A2)	87	0	5	5	0.00	5.00
N(I2)	87	0	5	5	0.00	5.00
N(IIA)	87	0	0	5	1.10	4.66
N(IIB)	84	3	0	5	2.41	1.79
N(IIIA)	84	3	3	5	0.58	4.70
N(IIIB)	79	8	0	5	2.26	1.52
N(IVA)	83	4	2	5	0.73	4.75
N(IVB)	86	1	0	5	2.35	1.79
N(V2)	80	7	0	5	2.30	2.56
N(VIA)	75	12	3	5	0.59	4.25
N(VIB)	77	10	0	5	2.11	1.35
N(B)	87	0	4	5	0.27	4.92
N(42)	87	0	5	5	0.00	5.00
N(9A)	86	1	0	5	1.47	2.47
N(9B)	83	4	0	5	1.55	0.89
N(B2)	87	0	4	5	0.27	4.92
N(C)	87	0	5	5	0.00	5.00

Appendix I
Descriptive Statistics of Sexual Abuse Data Set

Variables	N	Missing1	Min.	Max	St.Dev.	Mean
N(Loc.)	34	0	1	4	1.22	2.09
N(New)	34	0	0	1	0.41	0.21
N(Reo.)	34	0	0	1	0.41	0.21
N(On.)	34	0	0	1	0.50	0.59
N(M/F)	34	0	1	2	0.43	1.76
N(Age)	33	1	2	15	3.55	8.36
N(S.)	34	0	1	1	0.00	1.00
N(P.)	34	0	0	0	0.00	0.00
N(N.)	34	0	0	0	0.00	0.00
N(F.T.)	34	0	17	41	8.92	22.56
N(ARel.)	34	0	1	27	5.90	3.24
N(AAge)	17	17	27	44	5.58	35.29
N(AM/F)	34	0	1	2	0.29	1.91
N(BRel.)	31	3	1	27	8.21	13.00
N(BAge)	10	24	32	42	4.33	38.10
N(BM/F)	30	4	1	2	0.25	1.07
N(1M/F)	24	10	1	2	0.50	1.58
N(1Age)	20	14	2	16	4.51	9.55
N(1S.)	14	20	0	1	0.43	0.79
N(1P.)	14	20	0	0	0.00	0.00
N(1N.)	14	20	0	1	0.27	0.07
N(2M/F)	14	20	1	2	0.47	1.29
N(2Age)	13	21	1	12	3.81	5.77
N(2S.)	7	27	0	1	0.53	0.57
N(2P.)	7	27	0	0	0.00	0.00
N(2N.)	7	27	0	1	0.38	0.14
N(3M/F)	11	23	1	2	0.40	1.18
N(3Age)	11	23	1	19	5.18	8.73
N(3S.)	6	28	0	1	0.52	0.67
N(3P.)	6	28	0	0	0.00	0.00
N(3N.)	6	28	0	1	0.52	0.33
N(4M/F)	2	32	1	1	0.00	1.00
N(4Age)	2	32	18	18	0.00	18.00
N(4S.)	0	34	.	.	.	.
N(4P.)	0	34	.	.	.	.
N(4N.)	0	34	.	.	.	.
N(R.P.A)	7	27	2	39	14.72	16.86
N(R.P.Age)	4	30	12	36	12.18	25.75
N(R.P.Agender)	7	27	1	2	0.49	1.29
N(R.P.B)	1	33	1	1	.	1.00
N(R.P.Bage)	0	34	.	.	.	.
N(R.P.Bgender)	1	33	2	2	.	2.00
N(Perp.1)	11	23	1	1	0.00	1.00
N(Perp.2)	4	30	14	34	9.46	20.25
N(Perp.3)	11	23	5	44	10.60	30.64
N(1)	34	0	5	5	0.00	5.00
N(2)	34	0	3	5	0.90	4.47

Variables	N	N Missing	Min.	Max.	Std. Dev.	Mean
N(3)	34	0	1	5	0.99	4.53
N(A)	34	0	3	5	0.58	4.82
N(4)	34	0	5	5	0.00	5.00
N(5)	34	0	0	3	1.34	0.79
N(I)	34	0	4	5	0.24	4.94
N(A4)	33	1	0	5	1.66	4.39
N(A6)	28	6	0	5	1.89	3.89
N(A7)	27	7	0	5	1.96	3.00
N(A8)	29	5	0	5	2.10	3.52
N(A9)	27	7	0	5	1.68	2.96
N(A10)	22	12	0	5	1.78	2.68
N(AII)	32	2	0	5	0.98	4.56
N(A11)	29	5	-1	5	1.44	4.28
N(A12)	28	6	-1	5	1.40	4.25
N(A13)	18	16	-1	5	1.95	3.56
N(A14)	14	20	-1	5	1.83	3.57
N(A15)	33	1	-1	5	1.58	4.24
N(AIII)	33	1	-1	5	1.44	4.15
N(A16)	32	2	0	0	0.00	0.00
N(A17)	32	2	0	5	2.14	3.59
N(A18)	33	1	0	5	1.21	0.30
N(A19)	21	13	0	5	2.43	2.24
N(A20)	28	6	3	5	0.64	4.46
N(AIV)	30	4	0	5	1.10	4.57
N(A24)	11	23	3	5	0.67	4.64
N(A25)	16	18	2	5	0.77	4.06
N(AVI)	21	13	3	5	0.67	4.38
N(B4)	20	14	5	5	0.00	5.00
N(B6)	17	17	0	5	1.84	3.59
N(B7)	17	17	0	5	2.01	3.06
N(B8)	17	17	0	5	2.14	2.94
N(B9)	16	18	0	5	1.93	3.44
N(B10)	13	21	0	5	1.98	3.08
N(BII)	20	14	4	5	0.44	4.75
N(B11)	16	18	3	5	0.50	4.88
N(B12)	16	18	3	5	0.54	4.81
N(B13)	10	24	1	5	1.26	4.60
N(B14)	8	26	1	5	1.41	4.50
N(B15)	16	18	4	5	0.25	4.94
N(BIII)	17	17	4	5	0.39	4.82
N(B16)	18	16	0	0	0.00	0.00
N(B17)	15	19	0	5	1.73	4.13
N(B18)	19	15	0	0	0.00	0.00
N(B19)	16	18	0	5	1.91	3.75
N(B20)	17	17	3	5	0.66	4.24
N(BIV)	18	16	3	5	0.62	4.56
N(B24)	5	29	3	5	0.89	4.40
N(B25)	9	25	3	5	0.60	3.89
N(BVI)	12	22	3	5	0.74	4.00
N(21)	11	23	4	5	0.50	4.64
N(22)	19	15	-1	5	2.01	3.84
N(23)	9	25	-1	5	1.76	2.89

Variables	N	N Missing	Min.	Max.	Std. Dev.	Mean
N(V)	20	14	-1	5	1.50	3.95
N(A2)	34	0	3	5	0.58	4.82
N(I2)	34	0	4	5	0.24	4.94
N(IIA)	32	2	0	5	0.98	4.56
N(IIB)	34	0	0	5	2.40	2.79
N(IIIA)	33	1	-1	5	1.44	4.15
N(IIIB)	31	3	0	5	2.46	2.65
N(IVA)	30	4	0	5	1.10	4.57
N(IVB)	32	2	0	5	2.34	2.56
N(V2)	26	8	-1	5	2.14	3.04
N(VIA)	21	13	3	5	0.67	4.38
N(VIB)	26	8	0	5	2.09	1.85
N(B)	34	0	4	5	0.41	4.79
N(42)	34	0	5	5	0.00	5.00
N(9A)	27	7	0	5	1.68	2.96
N(9B)	30	4	0	5	2.23	1.83
N(B2)	34	0	4	5	0.41	4.79
N(C)	33	1	4	5	0.33	4.88