RUNNING HEAD: Understanding Child Neglect

Understanding Child Neglect: A Developmental Victimology Perspective

by

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ABSTRACT

Very few studies have explored the multi-dimensional and developmental nature of child neglect. In the present study, child neglect was examined from a developmental victimology perspective, which would predict that age trends in the incidence of different types of neglect would vary with the developmental needs of children, and that the family contexts of these neglect types would vary accordingly. The hypothesis that the incidence of child neglect would vary depending on children's particular vulnerabilities at different ages was supported. However, the hypothesis that the family context typifying each form of neglect would vary according to children's needs was largely unsupported. The results of this study illustrate that child neglect and its context are complex and multi-dimensional; that the developmental victimology framework is a promising approach to understanding the variation in types of neglect children experience; and that the role of family characteristics in child neglect is not as simple or obvious as is often assumed.

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CHAPTER I

Introduction

Every year, even in affluent nations, thousands of children lack adequate food, clothing or shelter; education; medical or psychiatric care; emotional nurturance; or protection from violence. Such neglect of children's physical and developmental needs is the most frequently reported form of maltreatment in the United States (Connell-Carrick, 2003; Jones & McCurdy, 1992), England (Department for Education & Skills, 2006 in Gough & Stanley, 2007) and Canada (Trocmé et al., 2005). In 2003, Canadian child welfare agencies investigated 217,319 reports of alleged maltreatment; in 34% of these cases, neglect was the primary form of maltreatment alleged (Trocmé et al., 2005). Neglect also was the most common form of substantiated maltreatment; in 30,366 cases, neglect was the primary form of maltreatment substantiated (Trocmé et al., 2005).

Despite its high incidence, historically child neglect was notable for its absence in the academic research. Wolock & Horowitz (1984) coined the phrase "the neglect of neglect" to describe the social, political and academic disinterest in the topic. Trends in the published maltreatment literature from 1977 to 1998 showed an annual increase in sexual abuse articles and a slight annual decrease in physical abuse articles; those considering neglect and emotional maltreatment remained consistently very low (Behl, Conyngham & May, 2003). The research that was conducted was criticized for its poor definitions and for the fact that neglect was rarely studied independently of other forms of child maltreatment (Wolock & Horowitz, 1984). More recently, the academic community has responded to the "neglect of neglect" with increased interest and research in the area (Dubowitz, 2007; McSherry, 2007). Although, as discussed in commentaries by McSherry and Dubowitz, there continues to be a need for definitional

standards, improved substantiation practices and a prioritizing of the study of neglect in the child welfare field.

The available research that has been conducted in this area has shown that neglect has dimensions that are unique. Its detrimental developmental effects are often chronic and severe and also differ from the effects of other forms of maltreatment (English et al., 2005; Hildyard & Wolfe, 2002; Polonko, 2006). Specifically, child outcomes for neglect include cognitive and academic deficits, social withdrawal and limited peer interactions. Whereas the effects of other forms of maltreatment are typified by externalizing child behaviours, the effects of neglect are primarily characterized by internalizing behaviours (Hildyard & Wolfe, 2002; Polonko, 2006). English et al. (2005) discovered that type of maltreatment is the most consistent predictor of child outcomes; that is, different forms of maltreatment predict different child outcomes. With regard to neglect specifically, the sub-category of *failure to provide* was a significant predictor of behavior problems (measured by the Child Behavior Checklist) and impairment of adaptation (measured by the Vineland Socialization Scale), whereas the sub-category of *lack of supervision* was not found to be a significant predictor of any child functioning outcomes. Further research into the relationship between sub-categories of neglect and child outcomes is emerging, and suggests unique outcomes for specific forms of neglect, and also unique outcomes for combinations of neglect and other maltreatment types (Dubowitz, Papas, Black, and Starr, 2002; Nolin & Ethier, 2007; Knutson, DeGarmo, Koeppl and Reid, 2005; Pears, Kim, and Fisher, 2008).

Given the life-long implications of disrupted early attachment, neglect's outcomes may be most negative when it is experienced very early in life (Hildyard & Wolfe, 2002). Indeed, it appears that young children experience the most severe consequences: neglected infants show

major declines in performance on the *Bayley Scales of Infant Development;* poor health; poor mental and motor development; and problems with social skills, language skills and attachment to caregivers (Brayden, Altemeier, Tucker, Dietrich & Vietze, 1992; Hildyard & Wolfe, 2002; Peretti, Early & Chmura, 1998).

Given the documented importance of parental responsiveness, sensitivity and nurturance in the early years to healthy development throughout life (McCain & Mustard, 1999), and given the high incidence of child neglect in Canada (Trocmé et al., 2005), it is of critical and urgent importance that we increase our understanding of the context in which child neglect occurs. The purpose of the present study was to obtain a fuller picture of the family contexts in which neglect occurs in order to provide recommendations for policy in this area. The following sections will provide information on the definitional issues involved in studying child neglect, as well as a summary of findings of the child neglect literature.

Defining Child Neglect

Although all maltreatment research is plagued by definitional debates, universal definitions are particularly problematic for neglect research. First, unlike physical or sexual abuse, neglect often involves chronic situations that are not easily identified by specific incidents (Hildyard & Wolfe, 2002). Second, the term "neglect" is rooted in an absence of particular behaviour rather than the presence of inappropriate behaviour, as is the case for physical or sexual abuse. Third, in order to operationalize this term, there must be agreement on parenting norms and standards in order to identify the absence of behaviour that meets them. Because parenting norms and standards differ greatly across cultures and history, research in this area tends to reflect its authors' cultural values (Straus & Kantor, 2005).

Conceptualizations of Child Neglect

Historically, "neglect" referred to parents' failure to provide for the physical and hygienic needs of children living in poverty (Jones & Gupta, 1998). In time, the term was criticized on the grounds that it was seen as moralizing, subjective, racist and sexist, and as blaming the poor for their poverty. More recently, the term "neglect" has been identified as a tool used by front-line social workers to access financial and social supports for low-income families (Swift, 1995), resulting in the use of the term to include families affected by poverty and isolation regardless of parental behaviour.

Swift (1995), using a feminist sociological approach, has argued that "neglect" has been constructed as a mothers' or women's issue, rather than the gender-neutral issue it should be. She argues that the overwhelming majority of neglect cases involve women who are the primary caregivers, whereas fathers who fail to pay child support rarely are labeled "neglectful" or experience the social stigma attached to that label. She describes neglect as a disempowerment of women in patriarchal societies in which many mothers are unable to provide for their children due to lack of social support and then are blamed and stigmatized for their poverty by being labeled "unfit" or "neglectful".

These critiques of neglect gain some support from Canadian research showing that biological mothers are identified as the perpetrators of neglect in 83% of substantiated cases, whereas fathers are identified as perpetrators in only 36% of these cases (Trocmé et al., 2005). Also, inadequate housing, poverty and social supports are linked to child neglect in the United States (Brayden et al., 1992; Drake & Pandey, 1996), suggesting that "neglect" may indeed be imbedded in social and cultural values. However, with 42% of neglect cases involving families

with both a male and female caregiver in the home, and 42% involving single female caregivers (Trocmé et al., 2005), Swift's feminist argument may now be outdated.

More recently, neglect has been constructed within the framework of developmental victimology, an emerging field of study that recognizes the unique vulnerabilities and social dependencies of child victims, as well as the differential effects of victimization at different ages throughout childhood (Finklehor, 2007). The developmental victimology framework is based on the recognition that maltreatment is defined in relation to the particular dependencies of children at different ages. For example, while both children and adults experience emotional maltreatment, that of a child is considered to warrant institutional intervention because the child is in a dependent relationshipwith the caretaker (Finkelhor, 2007).

Underlying the developmental victimology framework is a continuum of victimization types ordered according to the degree to which they constitute violations of children's dependency status. Neglect falls at one extreme because it really only exists as a form of victimization in the case of a person who is dependent on others for care. In contrast, an assault by a stranger in a public place would fall at the opposite extreme of the continuum because the victim is not dependent on the perpetrator for caregiving. As Finkelhor (2007) has stated,

> Childhood is such an extremely heterogeneous category -- 4-year-olds and 17-year-olds having little in common -- that it can he inherently misleading to discuss child victimization in general without reference to age. We would expect the nature, quantity, and impact of victimization to vary across childhood with the different capabilities, activities, and environments that are characteristic of different stages of development. This is the key principle of developmental victimology (p. 21).

This theoretical framework could be helpful for understanding the nature of neglect and its potential correlates at different ages. The dependencies of children change dramatically between birth and age 18. For example, as children grow, they become less dependent on caregivers to meet their physical needs, but more dependent on caregivers to meet their educational needs; they become less dependent on adults to supervise their behavior to ensure their physical safety (i.e., toddler in traffic), but increasingly dependent on adults to supervise their law abiding behavior.

Therefore, the form that neglect takes could vary depending on the child's developmental stage. From a developmental victimology perspective, there is reason to expect that the nature and context of various types of neglect vary across developmental stages. However, very little developmental research has been conducted in the area of child neglect. The present study addressed this knowledge gap by examining child neglect from a developmental victimology perspective.

Operational Definitions of Child Neglect.

Over the years, it has become recognized that neglect is not a uni-dimensional construct. While early conceptualizations of neglect focused on children's physical needs, gradually other forms of neglect have been acknowledged, reflecting children's needs for emotional nurturance and education. From a developmental victimology perspective, one could speculate that some of these neglect types are more common at some ages than at others. But the picture we have obtained has been complicated by the operational definitions used to measure these forms of neglect.

For example, in the US, the NIS-3 (Sedlak & Broadhurst, 1996) classifies reported neglect into three types: physical, educational, and emotional. One might expect emotional

neglect to be most common in the youngest age group because of young children's dependency on their caregivers to meet their trust and attachment needs. But, in fact, children aged five and younger were found to be the least likely to experience emotional neglect compared to other age groups (Sedlak & Broadhurst, 1996). The meaning of this finding becomes clearer when its operational definition is considered. In the NIS-3, the category of emotional neglect includes permitting the child to engage in drug or alcohol abuse, and refusing to provide psychological care. Developmentally, children would become more vulnerable to these forms of neglect with increasing age, at least partially explaining why the incidence of emotional neglect was found to increase with age in this study.

The developmental victimology perspective recognizes that a more finely tuned analysis of the incidence of neglect is needed. To date, in most research on this issue, neglect has been treated as a global construct, without consideration of its developmental dimension. A clearer understanding of child neglect will require an analysis that acknowledges the multidimensional and developmental nature of neglect. A primary objective of the present study was to examine the incidence of various forms of child neglect from a developmental victimology perspective. A second objective was to examine the contexts in which neglect occurs as children develop. It is to this question that I now turn.

The Family Context of Child Neglect

Neglect has been found to have distinct risk factors from those linked to, for example, physical maltreatment (Chaffin, Kelleher & Hollenberg, 1996; DiLauro, 2004; Brown, Cohen, Johnson & Salzinger, 1998). Specifically, Di Lauro (2004) found that neglect is more likely to be perpetrated by women, whereas physical violence is more likely to be perpetrated by men; that neglect is predicted by a history of being a victim of domestic violence, while physical

maltreatment is predicted by a history of being a perpetrator of domestic violence; and that substance abuse, low education levels and single-parent family structure are more likely to be found in neglect cases, whereas a perception of the child's behaviour as demanding is more likely to characterize physical abuse cases. These findings suggest that it is worthwhile to explore the family contexts of neglect in greater depth. Current knowledge of the family context of neglect is summarized in the following sections.

Poverty

Large family size, low social rank, and poor housing have been found consistently to increase the likelihood of neglect. In fact, of four forms of maltreatment (physical abuse, sexual abuse, emotional abuse, and physical neglect), physical neglect is most strongly associated with the family's demographic characteristics, including neighbourhood poverty (Drake & Pandey, 1996), low income and (in the US) *Aid to Families with Dependent Children* status (Jones & McCurdy, 1992). Slack, Holl, McDaniel, Yoo & Bolger (2004) found that indicators of poverty, such as perceived maternal hardship and infrequent employment, are predictive of reported young child neglect. The indicators of poverty linked to reported maltreatment, including neglect, are unemployment (Courtney, Piliavin, Dworsky & Zinn, 2005; Jones, 1990 cited in Slack et al., 2004), material hardships (Courtney et al., 2001; Green, Kortenkamp, & Stagner, 2001; and Shook, 1999 in Slack et al., 2004), and welfare assistance (Goerge & Lee, 2000 in Slack et. al., 2004; Paxson & Waldfogel, 2002; and Slack, Holl, Lee et al., 2003 in Slack et. al, 2004).

The safety and adequacy of the family's housing also affect the likelihood of neglect. Mothers who fail to provide adequate supervision for their children are more likely to have moved, to have been homeless, and to have had inadequate housing within the past year

compared to mothers who adequately supervise their children (Coohey, 1998). Children living in unsafe housing conditions are less likely to receive adequate physical care than children living in safe housing, even within a low-income, inner city neighbourhood (Swanson, Meyer, & DePanfilis, 2004).

Low Social Support

A family's level of social support also has been identified as a risk factor for neglect. Coohey (1995) studied neglectful mothers' relationships with their own mothers and with their partners, in comparison to a matched group of non-neglecting mothers. Compared to non-neglecting mothers, neglectful mothers described their own mothers as having fewer positive attributes, described their relationships as less positive, and reported less interest in receiving help from their mothers. The partners of the neglectful mothers did not differ from the comparison group in terms of their feelings about their mothers. However, neglectful mothers and their partners had known each other for less time, were more likely to be living apart, and saw each other less frequently than non-neglecting couples.

Interestingly, Coohey (1998) found no significant difference in the amount of perceived social support between mothers who failed to provide adequate supervision for their children and a comparison group. In light of other findings demonstrating a negative relationship between social support and neglect (Coohey, 1995, 1998, Crittenden, 1988, Gaudin, Polansky, Kilpatrick & Shilton, 1993 in Coohey 1998), Coohey (1998) suggests that neglectful mothers might normalize their relatively low levels of social support. On the other hand, Beeman (1997) found few differences between neglecting and non-neglecting low-income mothers in terms of the structural and interactional characteristics of their social supports, but noted significant differences in the groups' perceptions of their supports. The non-neglecting mothers'

relationships were characterized as mutual and independent, trusting, reciprocating and flexible; whereas the neglecting mothers' relationships were characterized as dependent, conflictual, distrustful, and lacking mutuality. In contrast to Coohey's (1998) conclusions, Beeman suggested that mothers' perceptions of their social supports, rather than the quantity of their social supports, should be considered in assessing their risk for child neglect. Clearly, the association between child neglect and caregivers' social support merits further investigation.

Parental Characteristics

Low parental self-esteem and weak social skills have been linked to increased risk of neglect. For example, in a study comparing mothers reported for neglect to those who had never been reported, neglectful mothers obtained lower scores on moral self-worth, personal and social adequacy, and perception of self-worth in family relationships (Christensen, Brayden, Dietrich, McLaughlin, & Sherrod, 1994). Fathers with a low sense of parenting self-efficacy also are at increased risk for neglecting their children (Dubowitz, Black, Kerr, Starr & Harrington, 2000). Mothers who inadequately supervise their children have been found to have fewer problem-solving skills and fewer social skills than mothers who provide adequate supervision (Coohey, 1998).

Parental substance abuse is a predictor of neglect (Chaffin et al., 1996; DiLauro, 2004), as is being a victim of domestic violence (DiLauro, 2004). Parental gender and age have been found to affect the likelihood of child neglect; women are at greater risk than men (DiLauro, 2004) and younger mothers are at greater risk than older mothers (Brown et al., 1998). Slack et al. (2004) found that low parental warmth, use of physical punishment, and frequent television watching are also predictive of reported child neglect.

Family Context and Child Age.

Although these studies have increased our understanding of the family contexts in which child neglect is more likely to occur, virtually all of the research conducted to date has two major weaknesses: a) it has treated neglect as a uni-dimensional construct; and b) it has neglected to consider the developmental nature of neglect. Therefore, we do not know whether different neglect types tend to be seen in different family contexts, nor do we know whether the family contexts characterizing different forms of neglect vary across developmental stages. If the incidence of a specific type of neglect is related to children's levels of dependency, this might indicate that the family context in which the neglect is occurring is particularly unresponsive to children's needs *at that stage*. That is, families who neglect their children's needs at young ages (e.g., physical neglect) might have different characteristics than families who neglect their children's needs at older ages (e.g., educational neglect). This question was addressed in the present study. A developmental analysis of the family contexts of various forms of neglect could contribute to the design of more effectively targeted early intervention and prevention approaches.

Purpose of the Present Study

The developmental victimology perspective calls for an understanding of child maltreatment as a multi-dimensional, developmental phenomenon. To date, this approach has not been applied to research on neglect. The purpose of the present study was to address this gap in our knowledge by examining a sample of substantiated cases of child neglect in Canada. Specifically, the present study provided an examination of the developmental nature of various types of child neglect and their family contexts. The eight types of child neglect measured in the

CIS-2003 were examined from a developmental victimology perspective. These were: 1) physical neglect; 2) educational neglect; 3) failure to supervise – physical harm; 4) failure to supervise – sexual abuse; 5) medical neglect; 6) failure to provide psychological/psychiatric treatment; 7) permitting criminal behavior, and; 8) abandonment.

Hypotheses

I predicted that age trends in the incidence of different types of child neglect would vary with the developmental needs of children, and the family contexts of these neglect types would vary accordingly.

Physical neglect. As children develop, their dependence on their caregivers for meeting their physical needs gradually declines. Therefore, I predicted the incidence of *physical neglect* would be negatively related to *child age* (hypothesis 1a). Because physical neglect constitutes a failure to provide for the child's basic physical needs, such as food, clothing and shelter, I predicted physically neglecting families would be characterized primarily by *poverty* (hypothesis 1b).

Educational neglect. As children develop their dependence on their caregivers for meeting their educational needs increases. Therefore, I predicted the incidence of *educational neglect* would be positively related to *child age* (hypothesis 2a). Educational neglect constitutes a failure to register a child for school or allow chronic truancy. These families may lack the skills to get the child to school regularly perhaps due to youth, addictions or mental health conditions. Therefore, I predicted educationally neglecting families would be characterized primarily by young *caregiver age*, *caregiver alcohol and drug abuse*, and *caregiver mental health issues* (hypothesis 2b).

Failure to supervise – physical harm. Young children do not have the cognitive reasoning or impulse control to keep themselves safe. As children develop these cognitive skills and impulse control, their dependence on their caregivers to supervise their behavior and ensure their physical safety gradually declines. Therefore, I predicted the incidence of *failure to supervise – physical harm* would be negatively related to *child age* (hypothesis 3a). Parents who fail to keep their children safe may struggle with alcohol or drug abuse, mental health issues or lack the social supports necessary to give them time to monitor their children. Therefore, I predicted this type of neglect would be characterized by *caregiver alcohol and drug abuse*, *caregiver mental health issues*, and *caregiver – few social supports* (hypothesis 3b).

Failure to supervise – sexual abuse. This form of neglect constitutes a lack of supervision that results in sexual abuse or exploitation of the child. All children require supervision by their caregivers to protect them from sexual exploitation and abuse, although as children develop their need for autonomy and social/peer identity may increase their risk for sexual abuse, so their dependence on their caregivers to protect them from sexual exploitation and abuse might increase. Therefore, I predicted the incidence of *failure to supervise – sexual abuse* would be positively related to *child age* (hypothesis 4a). As in the case of *failure to supervise – physical harm*, these families may struggle with alcohol and drug abuse, mental health issues, or lack social support. Therefore, I predicted this type of neglect would also be characterized by *caregiver alcohol and drug abuse*, *caregiver mental health issues*, and *caregiver -- few social supports* (hypothesis 4b).

Medical neglect. As children develop cognitive reasoning and autonomy, the medical community increasingly acknowledges their ability to make medical decisions for themselves. For example, a teenager can receive birth-control without parental consent, whereas a toddler

cannot refuse immunizations, so children's dependence on their caregivers to provide medical treatment may decrease as they grow. Therefore, I predicted the incidence of *medical neglect* would be negatively related to *child age* (hypothesis 5a). This form of neglect constitutes a failure to provide the medical treatment needed to prevent or reduce physical harm or suffering of a child. These caregivers may lack understanding of their children's medical needs, or struggle with mental health issues that prevent them from recognizing their children's needs. Therefore, I predicted *medical neglect* would be characterized by *caregiver -- cognitive impairments*, and *caregiver mental health issues* (hypothesis 5b).

Failure to provide psychological/psychiatric treatment. While in the early years children with behavioral, social or emotional concerns are typically identified as developmentally delayed and referred to early intervention services (speech and physiotherapy) as they develop, the likelihood of their needing psychological/psychiatric treatment increases. Therefore, I predicted the incidence of *failure to provide psychological/psychiatric treatment* would be positively related to *child age* (hypothesis 6a). This form of neglect constitutes a failure to provide treatment for emotional or psychological conditions resulting in (or substantial risk for) emotional or physical harm to the child. As in the case of *medical neglect*, these families may lack knowledge or understanding of their children's psychological needs, or struggle with mental health issues themselves that serve as barriers to their seeking support for their children. Therefore, I predicted *failure to provide psychological/psychiatric treatment* would be characterized by *caregiver -- cognitive impairments*, and *caregiver mental health issues* (hypothesis 6b).

Permitting criminal behavior. Permitting criminal behavior constitutes a failure to direct children away from criminal activity, or to actively encourage criminal activity. As children

develop, their opportunities to engage in criminal behaviour increase, so their dependence on their caregivers to provide guidance in law abiding behaviours increases. Therefore, I predicted the incidence of *permitting criminal behaviour* would be positively related to *child age* (hypothesis 7a). Children who are exposed to, or given opportunities to participate in, criminal behaviour may be living in families involved in criminal activity or use of illegal substances. Therefore, I predicted this form of neglect would be characterized by *caregiver – criminal activity* and *caregiver alcohol and drug abuse* (hypothesis 7b).

Abandonment. This form of neglect constitutes a failure to accept or maintain the custody and care of a child. All children require caregivers to accept responsibility for their care and custody. As children develop, their daily care may change, but their dependence on their caregivers to maintain provisions for their custody remains constant. Therefore, I predicted the incidence of *abandonment* would be unrelated to *child age* (hypothesis 8a). It may be the case that non-biological parents are more likely to abandon children than biological parents because they feel less of an obligation to them. It also may be the case that parents who lack social support, or who themselves are victims of violence in the home, are more likely to find that they are unable to care for their children or to safely stay in the home. Therefore, I predicted caregivers who abandon their children will tend to be *non-biological parents*, to have *few social supports* and be *victims of domestic violence* (hypothesis 8b).

CHAPTER II

Method

The Canadian Incidence Study (CIS) of Reported Child Abuse and Neglect – 2003 (Trocmé et al., 2005) is the second wave of data in this national study funded by the Public Health Agency of Canada. Intake workers at 63 child welfare agencies across Canada recorded information on all child abuse and neglect cases reported over a -3 month period in 2003. A total of 14,200 child maltreatment investigations were tracked. The description of the CIS-2003 presented in the following sections is based on information provided in the study's final report (Trocmé et al., 2005).

Sampling Procedure

A four-stage sampling process was used to select a nationally representative sample of child welfare agencies for this stratified cluster design study. The first stage involved stratification by region; at least one agency representing each province or territory was selected, with additional agency representation for the larger provinces. Aboriginal agencies were not included in the regional strata, but were sampled from a separate Aboriginal Canadian stratum to insure adequate representation. In the second and third stages of the sampling process, cases opened by each agency over a three-month period were selected for the sample and then assessed for their eligibility to be included in the study. In all regions except Quebec, intake social workers were asked to determine case eligibility using a screening form developed for the CIS; in Quebec, cases were selected by applying the study criteria to cases in the provincial maltreatment database. Open cases were only included in the study if they met the CIS definition of maltreatment, regardless of provincial or regional legislation for delivering preventative/support services. In the final stage of the sampling process, the selected cases were

sorted by child-level investigation, rather than family-level investigation, in order to exclude non-maltreated siblings from the data.

Data Collection Procedure

The data were collected by intake workers at the selected child welfare agencies using a 39-question Maltreatment Assessment Form developed specifically for the CIS. The form consists of 3 sections: 1) an intake face sheet; 2) a household information sheet; and 3) a child information sheet. The intake face sheet was used to collect demographic information about each report or referral for child welfare services. The second section of the form, the household information sheet, was used to collect information about the caregivers' histories, the family's housing, the caregivers' mental and physical functioning and the referral source. On the final section of the form, the child information sheet, information was collected about the forms of maltreatment being investigated, the physical and emotional harm sustained by the child, the child's mental and physical functioning, and whether the maltreatment report was substantiated. The Maltreatment Assessment Form was designed to capture the common elements of child maltreatment definitions across jurisdictions, and to be short and simple to administer.

During the actual data collection period, intake workers were visited on-site by members of the CIS research team who answered questions, provided support and collected the completed forms. The overall participation rate was 93%, ranging from 62% to 100% for site locations. Participation rates below 95% were discussed with the research team liaison for each agency. On the basis of these discussions, all incidents of low participation were attributed to external causes (e.g., staff holidays, staff turnover) rather than to a systematic bias.

Item completion rates were above 99% on all items. This high completion rate is attributed to the design assessment tools. The maltreatment assessment form offered many

check-box answers to minimize completion time for the intake workers. Additionally, many questions offered an "unknown" category as an option, allowing researchers to distinguish "missing" data from "unknown" responses.

Child Maltreatment Definitions

Maltreatment was classified in the CIS-2003 into five categories: physical abuse, sexual abuse, neglect, emotional maltreatment and exposure to domestic violence. Each case of maltreatment was classified into one, two or three categories. Each category was then designated as the primary or secondary form of maltreatment investigated in that case. Physical abuse was recorded in cases where children had allegedly been harmed or were at "substantial risk of suffering physical harm at the hands of his or her caregiver". Cases investigated for alleged physical abuse were further classified by form: 1) shake, push, grab or throw; 2) hit with hand; 3) punch, kick or bite; 4) hit with an object, or 5) other physical abuse. Sexual abuse was recorded in cases where children allegedly experienced: 1) vaginal or anal penetration; 2) attempted penetration; 3) oral sex; 4) fondling; 5) exposure to verbal or written sex talk or pornography; 6) voyeurism; 7) exhibitionism, or 8) exploitation. Emotional maltreatment was recorded in cases where chronic long-term emotional consequences are suspected due to caregiver behaviour; emotional maltreatment was classified as: 1) emotional abuse; 2) non-organic failure to thrive; 3) emotional neglect; 4) exposure to non-intimate (not involving caregivers) violence. Exposure to domestic violence was recorded in cases where children were exposed (directly or indirectly) to violence involving a caregiver; this only included cases reported to the child welfare authorities.

Neglect was recorded in cases where children had allegedly suffered harm, or where the child's safety or development was allegedly endangered, as a result of a caregiver's failure to protect him/her. Cases investigated for alleged neglect were further classified as : 1) physical

neglect; 2) educational neglect; 3) failure to supervise – physical harm; 4) failure to supervise – sexual abuse; 5) medical neglect; 6) failure to provide psychological/psychiatric treatment; 7) permitting criminal behavior, and; 8) abandonment.

Substantiation Definition

Following each investigation, the report was classified as substantiated, unsubstantiated or suspected. A report was substantiated when maltreatment was confirmed following an investigation, and was unsubstantiated when maltreatment was not confirmed following an investigation. A report was classified as suspected when in the clinical judgment of the intake worker, maltreatment was suspected to have occurred, but could not be substantiated.

Weighting Procedures

National incidence estimates were derived from the CIS-2003 data using two sets of weights. First, data from the three-month survey samples were annualized to estimate the annual volume of cases in a region. Then, regional weights were applied to reflect the relative size of a region and thereby account for the non-proportional sampling design. The CIS-2003 weighted sample size was 235,315 for all investigated cases.

Limitations

The CIS-2003 is appropriate and reliable data for the present study. However, there are limitations to this data that should be noted. As with all data on reported maltreatment, these data exclude all cases of child maltreatment that go unreported to child welfare authorities; it is openly acknowledged that reported cases of maltreatment probably represent the tip of the iceberg of all occurring maltreatment cases. The sampling procedure employed a survey tool that was quick and user friendly for busy intake workers, although it can also be criticized as too brief to adequately assess the complexity of child and family functioning issues in its 30 day time

period. Furthermore, the survey reports by intake workers are presumed accurate, as they were conducted by trained professionals, although these data were not externally verified.

Cases Selected for the Present Study

All cases in which neglect was substantiated as the primary form of maltreatment were selected for analysis. Cases of suspected and unsubstantiated neglect were excluded from this analysis. Cases for Quebec were excluded. This selection procedure yielded a weighted sample of 30,366 cases.

Variables Selected for the Present Study

Child age. Originally this study planned to measure children's age in years; the core sample of children in the CIS-2003 ranged from 1 to 15 years.[1] However, due to small sample sizes in some types of neglect, child age was grouped into the CIS-2003 age groupings: under 1 year, 1-3 years, 4-7 years, 8-11 years and 12-15 years.

Physical neglect. Physical neglect was recorded when a child suffered, or was deemed to be at substantial risk of, physical harm due to inadequate care provided by the caregiver. Inadequate care includes providing insufficient nutrition, inadequate clothing, and unhygienic or dangerous living conditions. In the present study, both the frequency and incidence of *physical neglect* were measured. The frequency measure was the weighted estimate of the number of substantiated investigations in which *physical neglect* was the primary form of maltreatment. The incidence measure was the annual incidence rate of substantiated investigations in which *physical neglect* was the primary form of maltreatment per 1,000 children at each age in the general population.

[1] In some provinces/territories, child welfare services are provided for children under 19 years of age, but in others services are provided only for children under 16 years of age, making the availability of data relating to children age 16 to 18 years inconsistent across regions. Therefore, only cases involving children age 0 to 15 years were included in the present study.

Educational neglect. Educational neglect was recorded when "caregivers knowingly allowed chronic truancy, failed to enroll the child, or repeatedly kept the child at home" (Trocmé et al., 2005, p. 41). In the present study, both the frequency and incidence of *educational neglect* were measured. The frequency measure was the weighted estimate of the number of substantiated investigations in which *educational neglect* was the primary form of maltreatment. The incidence measure was the annual incidence rate of substantiated investigations in which *educational neglect* was the primary form of maltreatment per 1,000 children at each age in the general population.

Failure to supervise – physical harm. Failure to supervise – physical harm was recorded when a child suffered or was at risk of suffering physical harm due to inadequate caregiver supervision and protection. In the present study, both the frequency and incidence of *failure to supervise – physical harm* were measured. The frequency measure was the weighted estimate of the number of substantiated investigations in which *failure to supervise – physical harm* was the primary form of maltreatment. The incidence measure was the annual incidence rate of substantiated investigations in which *failure to supervise – physical harm* was the primary form of maltreatment per 1,000 children at each age in the general population.

Failure to supervise – sexual abuse. Failure to supervise – sexual abuse was recorded when a caregiver knew, or should have known, that a child was deemed to be at risk of sexual molestation or exploitation, and the caregiver failed to protect the child adequately. In the present study, both the frequency and incidence of *failure to supervise – sexual abuse* were measured. The frequency measure was the weighted estimate of the number of substantiated investigations in which *failure to supervise – sexual abuse* was the primary form of maltreatment. The incidence measure was the annual incidence rate of substantiated investigations in which *failure*

to supervise – sexual abuse was the primary form of maltreatment per 1,000 children at each age in the general population.

Medical neglect. Medical neglect was recorded when a child "required medical treatment to cure, prevent or alleviate physical harm or suffering, and the child's caregiver did not provide, refused, or was unavailable or unable to consent to the treatment" (Trocmé et al., 2005, p. 41). In the present study, this variable was used as interval level data, considering the incidence of substantiated cases occurring.

Failure to provide psychological/psychiatric treatment. This sub-category of neglect was recorded in cases where a child was at substantial risk of emotional harm (e.g., severe anxiety, depression, withdrawal, self-destructive or aggressive behaviour, or a mental, emotional, or developmental condition that could seriously impair the child's development) and the caregiver failed to access treatment for the child. This form of neglect includes failure to provide treatment for an infant who is failing to thrive, and failure to provide intervention for school difficulties, such as behavioural problems and learning disorders. In the present study, both the frequency and incidence of *failure to provide psychological/psychiatric treatment* were measured. The frequency measure was the weighted estimate of the number of substantiated investigations in which *failure to provide psychological/psychiatric treatment* was the primary form of maltreatment. The incidence measure was the annual incidence rate of substantiated investigations in which *failure to provide psychological/psychiatric treatment* was the primary form of maltreatment per 1,000 children at each age level in the general population.

Permitting criminal behaviour. Permitting criminal behavior was recorded when a caregiver permitted or encouraged the child's participation in illegal activities, such as theft, vandalism or assault. In the present study, both the frequency and incidence of *permitting*

criminal behaviour were measured. The frequency measure was the weighted estimate of the number of substantiated investigations in which *permitting criminal behavior* was the primary form of maltreatment. The incidence measure was the annual incidence rate of substantiated investigations in which *permitting criminal behaviour* was the primary form of maltreatment per 1,000 children at each age level in the general population.

Abandonment. Abandonment was recorded when the child's parent died or was unable to exercise custodial rights and did not make adequate provisions for the care and custody of the child, or the child was in a temporary placement and the caregiver refused or was unable to take custody. In the present study, both the frequency and incidence of *abandonment* were measured. The frequency measure was the weighted estimate of the number of substantiated investigations in which *abandonment* was the primary form of maltreatment. The incidence measure was the annual incidence rate of substantiated investigations in which *abandonment* was the primary form of maltreatment per 1,000 children at each age level in the general population.

Caregiver age. In the CIS-2003, each caregiver's age was grouped into one of ten categories: under 16, 16 to 18, 19 to 21, 22 to 25, 26 to 30, 31 to 40, 41 to 50, 51 to 60, 61 to 70, above 70. In the present study, each of these categories was assigned a code on a scale from 1 to 10 for each caregiver. In families with two caregivers, the two scores were added together and divided by 2 to yield an average *caregiver age* for the family. In families with one caregiver, that caregiver's age was coded and served as the score on this variable.

Poverty indicators. The CIS-2003 includes an income variable, but data are missing on that variable in a large proportion of cases and, where data were provided, they were based on workers' estimates of caregivers' incomes. Therefore, the income data were not sufficiently reliable to use as an indicator of poverty. Instead, I used a proxy measure composed of three

indicators. The first indicator was the number of family moves in the past year (none, one, or two or more). The second indicator was unsafe housing. Workers indicated whether, in their opinion, children in the family were at risk for harm due to the condition of the home (e.g., broken windows, insufficient heat, parents and children sharing a single room). The third indicator was the primary source of income, and includes four categories: 1) full-time employment, 2) part-time employment, 3) social assistance or 4) other source of income, including employment insurance benefits.

Each family received a score from 0 to 3 on the *poverty* variable. The social assistance indicator reflected that the family had met the poverty threshold. If neither caregiver's primary income source was social assistance *and* at least one caregiver was working full-time, the family received a score of 0 on the *poverty* variable. If at least one caregiver's primary income source was social assistance, the family received a score of 1 on the *poverty* variable. If in addition to receiving social assistance, the family was living in unsafe *or* overcrowded housing conditions, the family received a score of 2 on the *poverty* variable. If in addition to receiving social assistance, the family was living in unsafe *and* overcrowded housing conditions, the family received a score of 3 on the *poverty* variable.

Caregiver alcohol and drug abuse. For each caregiver, workers recorded whether alcohol abuse was "confirmed", "suspected", "no" or "unknown" in the previous six months. They indicated that alcohol abuse was "confirmed" if it had been diagnosed, if they or another worker had observed it, or if it was disclosed by the caregiver. They indicated that alcohol abuse was "suspected" if their suspicions were sufficient to include in a written assessment of the household or a transfer summary to a colleague. They indicated "no" if they believed that

alcohol abuse was not a problem and "unknown" if they were unsure or had not attempted to determine if alcohol abuse was an issue.

The same process was used to record whether drug abuse was confirmed, suspected, not a problem or unknown for each caregiver. In the present study, these two variables were collapsed to form a two-point "alcohol and/or drug abuse" variable: 0 = alcohol and drug abuse were recorded as "no" for both caregivers; 1 = alcohol *or* drug abuse was confirmed or suspected for at least one caregiver; 2 = alcohol *and* drug abuse were confirmed or suspected for at least one caregiver. Families in which alcohol and drug abuse were recorded as unknown for both caregivers were excluded from the sample.

Caregiver mental health issues. Workers recorded whether each caregiver had mental health issues. They indicated that mental health issues were "confirmed" if they had been diagnosed, if they or another worker had observed them, or if they were disclosed by the caregiver. They indicated that mental health issues were "suspected" if their suspicions were sufficient to include in a written assessment of the household or a transfer summary to a colleague. They indicated "no" if they believed that mental health issues were not a problem and "unknown" if they were unsure or had not attempted to determine if mental health was an issue. In the present study, *caregiver mental health issues* was coded as 0 (mental health issues recorded as "no" for both caregivers) or 1 (mental health issues confirmed or suspected for at least one caregiver). Families in which mental health issues were unknown for both caregivers were excluded from the sample.

Caregiver – few social supports. Workers recorded whether each caregiver had few social supports. They indicated that few social supports were "confirmed" if they or another worker had observed this, or if this was disclosed by the caregiver. They indicated few social

supports were "suspected" if their suspicions were sufficient to include in a written assessment of the household or a transfer summary to a colleague. They indicated "no" if they believed that social supports were not a problem, and "unknown" if they were unsure or had not attempted to determine whether social support was an issue. In the present study, *caregiver -- few social supports* was coded as 0 (few social supports recorded as "no" for both caregivers) or 1 (few social supports confirmed or suspected for at least one caregiver). Families in which social support was unknown for both caregivers were excluded from the sample.

Caregiver – cognitive impairments. Workers recorded whether each caregiver was cognitively impaired. They indicated that cognitive impairment was "confirmed" if it had been diagnosed, if they or another worker had observed it, or if it were disclosed by the caregiver. They indicated that cognitive impairment was "suspected" if their suspicions were sufficient to include in a written assessment of the household or a transfer summary to a colleague. They indicated "no" if they believed that cognitive impairment was not a problem and "unknown" if they were unsure or had not attempted to determine if cognitive impairment was an issue. In the present study, caregiver cognitive impairment was coded as 0 (cognitive impairment recorded as "no" for both caregivers) or 1 (cognitive impairment confirmed or suspected for at least one caregiver). Families in which cognitive impairment was unknown for both caregivers were excluded from the sample.

Caregiver – criminal activity. Workers recorded whether each caregiver was involved in criminal activity (absent due to incarceration, involved in drug dealing, theft, prostitution, etc.). They indicated that criminal activity was "confirmed" if they or another worker had observed it, or if it was disclosed by the caregiver. They indicated that criminal activity was "suspected" if their suspicions were sufficient to include in a written assessment of the household or a transfer

summary to a colleague. They indicated "no" if they believed that criminal activity was not a problem and "unknown" if they were unsure or had not attempted to determine if criminal activity was an issue. In the present study, *caregiver -- criminal activity* was coded as 0 (criminal activity recorded as "no" for both caregivers) or 1 (criminal activity confirmed or suspected for at least one caregiver). Families in which criminal activity was unknown for both caregivers were excluded from the sample.

Caregiver – non-biological parent. Each caregiver's relationship to the child was classified into one of seven categories: biological parent, common-law partner, foster parent, adoptive parent, step-parent, grandparent, other. In the present study, these seven categories were collapsed into two categories, biological caregiver and non-biological caregiver, and scored on a three-point scale (0 = both caregivers were biologically related to the child, 1 = one caregiver was not biologically related to the child, and 2 = both caregivers were not biologically related to the child).

Caregiver – victim of domestic violence. Workers recorded whether each caregiver had been a victim of domestic violence during the previous six months, including physical, sexual or verbal assault. They indicated that domestic violence victimization was "confirmed" if they or another worker had observed it, or if it was disclosed by the caregiver. They indicated that domestic violence victimization was "suspected" if their suspicions were sufficient to include in a written assessment of the household or a transfer summary to a colleague. They indicated "no" if they believed that domestic violence victimization was not a problem and "unknown" if they were unsure or had not attempted to determine if it was an issue. In the present study, domestic violence victimization was coded as 0 (domestic violence victimization recorded as "no" for both caregivers) or 1 (domestic violence victimization confirmed or suspected for at

least one caregiver). Families in which domestic violence victimization was unknown for both caregivers were excluded from the sample.

Data Analysis

The hypotheses regarding the expected relationship between *child age* and each type of neglect were tested using the incidence measure of each form of neglect. This controlled for the potentially confounding effect of the size of the population at each age level. The strength and direction of each relationship was originally going to be assessed with the Pearson's r statistic; the significance level for each test would have been set at .006 (.05/8) to control for Type I error. However, due to changes made to the *child age* variable, from interval level to ordinal level data, the strength and direction of each relationship was assessed with the Kendall's tau statistic; the significance level for each test was still set at .006 (.05/8) to control for Type I error.

The hypotheses regarding the expected relationship between specific family characteristics and each type of neglect was tested using the frequency measure of each form of neglect. This allowed for an examination of the characteristics of the present sample of cases. Prior to a series of eight regression equations being generated, a factor analysis was run to control for multicolinarity. In each regression equation, all the family characteristics were entered as predictors (*poverty, caregiver age, caregiver alcohol and drug abuse, caregiver mental health issues, caregiver -- few social supports, caregiver -- cognitive impairment, caregiver -- criminal activity, caregiver -- non-biological parent, and victim of domestic violence*). In each equation, the frequency of one type of neglect served as the outcome variable. A series of eight forward Stepwise regression analyses identified the best predictors of each type of neglect. The significance level for each equation was set at .006 (.05/8) to control for Type I error.

CHAPTER III

Results

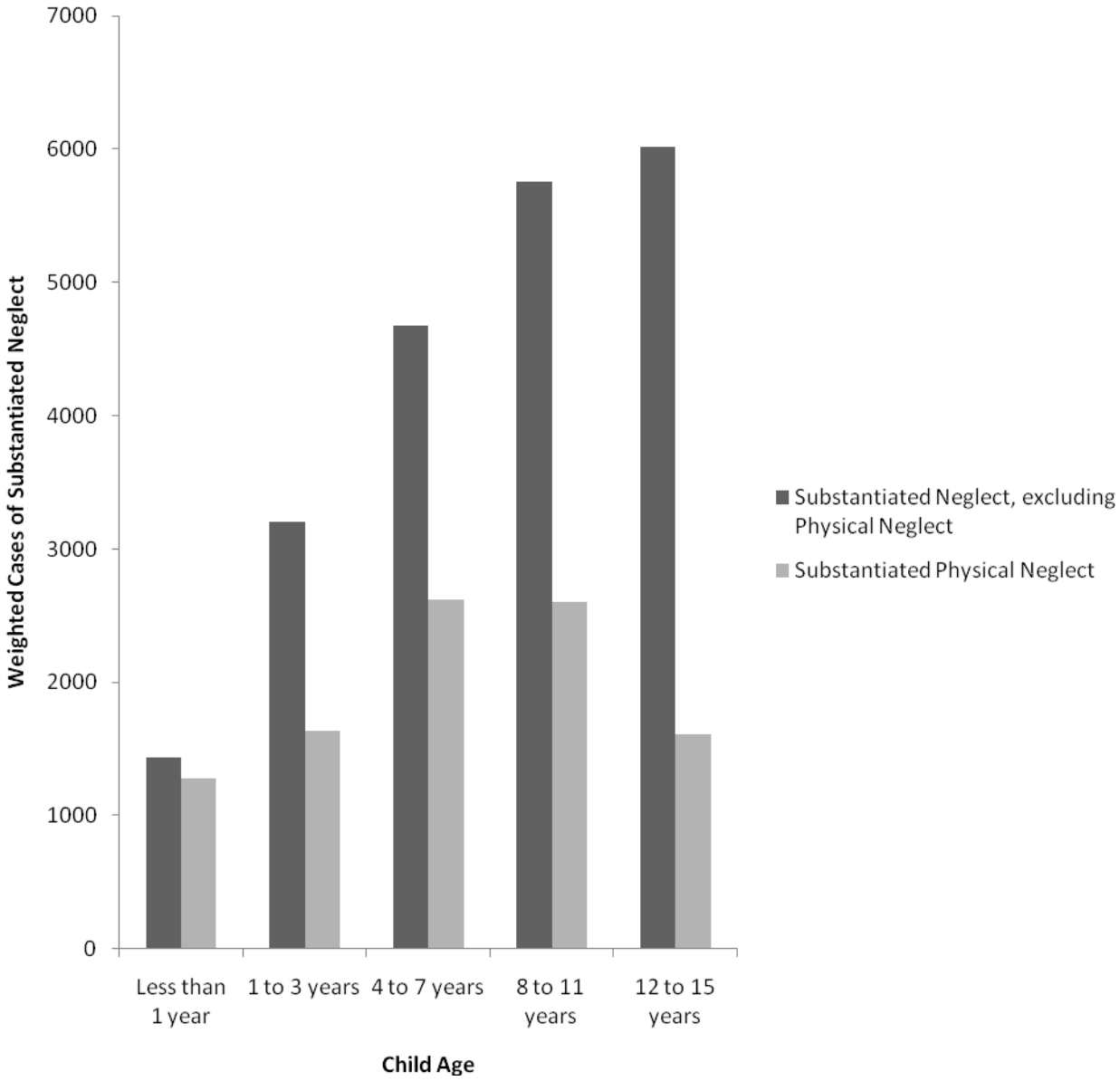
Child Age and Types of Neglect Findings

Hypothesis 1a: The incidence of physical neglect will be negatively related to child age. Among substantiated cases of neglect, the *frequency* of *physical neglect* was positively related to *child age* (χ^2 =763.43, df = 4, $p < .0001$) (see Figure 1). The incidence of this form of neglect among children aged 1 to 3 years was 28% higher than among infants younger than 1 year of age (see Figure 1). The frequency increased again by 60% among children aged 4 to 7 years and remained mostly constant (less than 1% decrease) for children aged 8 to 11, then decreased by 38% again among children aged 12 to 15 (see Figure 1).

However, the findings do indicate that the incidence of *physical neglect* per 1000 children in the population decreased from the youngest to the oldest age group, supporting the hypothesis. Moreover, the percentage of each age group accounted for by *physical neglect* decreased from the youngest to the oldest age groups (see Table 1). Whereas approximately one-half of all neglected infants were physically neglected, approximately one-third of all neglected children in the preschool, early school and middle school age groups, respectively, were physically neglected – and one-fifth of neglected adolescents were physically neglected. Therefore, the hypothesis was supported.

Hypothesis 2a. The incidence of educational neglect will be positively related to child age. Among substantiated cases of neglect, the *frequency* of *educational neglect* was positively related to *child age* (χ^2 =759.71, df = 4, $p < .0001$) (see Figure 2). The frequency of this form of neglect among neglected children younger than 4 was zero. The frequency among neglected children aged 8 to 11 increased by 264% over the frequency among neglected children aged 4

Figure 1. Frequency of *Physical Neglect*[a] by *Child Age*.



[a] Reference group is all substantiated cases of neglect.

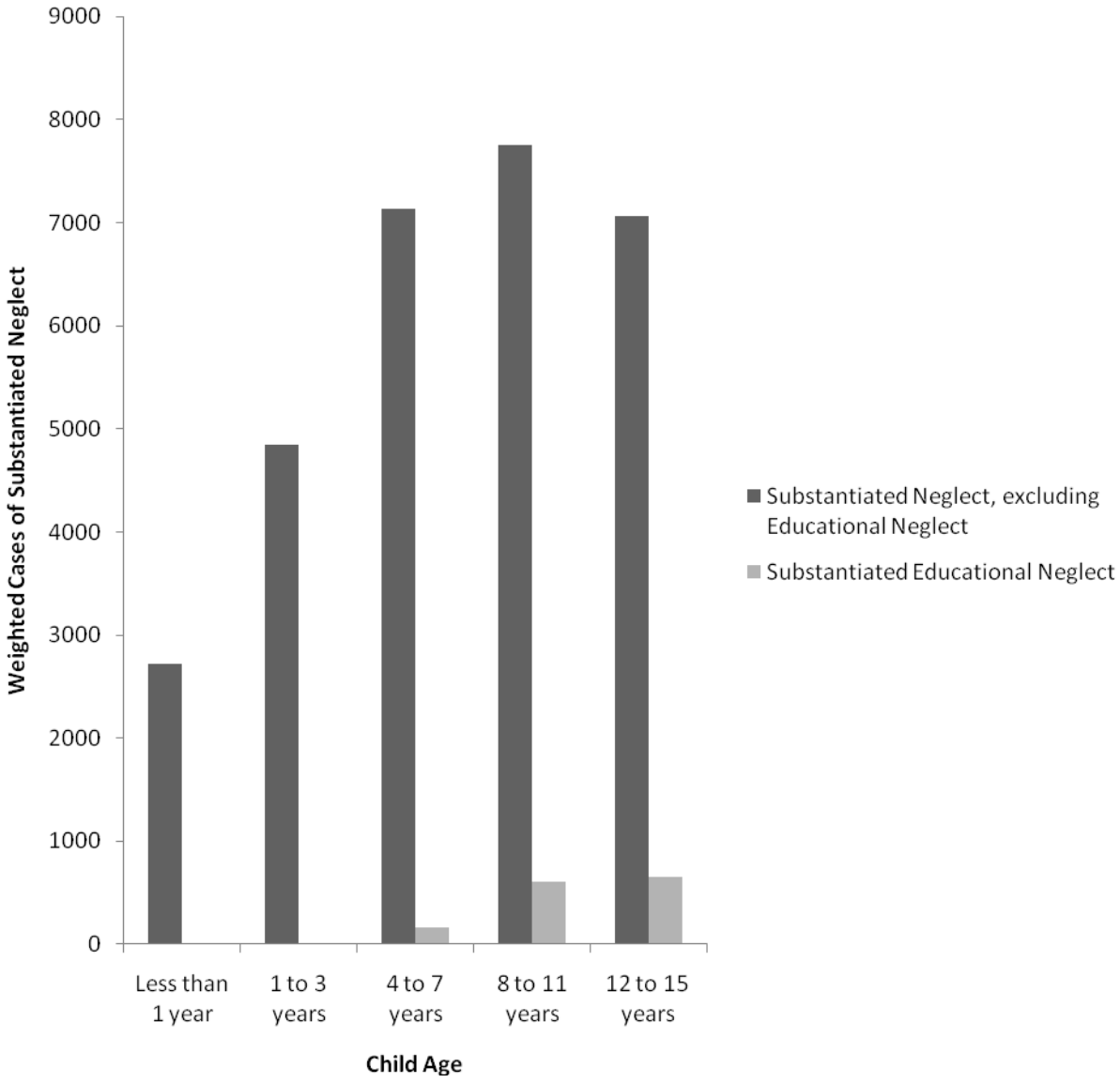
Table 1

Breakdown of Physical Neglect by Child Age

Child Age	Frequency of Sub. Neglect (Weighted)	Frequency of Sub. *Physical Neglect* (Weighted)	Percent of all Sub. Neglect Cases	Percent of all Sub. *Physical Neglect* Cases	Percent of Age Group Physically Neglected[a]	Incidence of Sub. *Physical Neglect* per 1000 Population
Less than 1 year	2716	1277	4.14	13.10	47.03	3.87
1 to 3 years	4846	1640	5.32	16.82	33.84	1.62
4 to 7 years	7301	2622	8.50	26.90	35.91	1.87
8 to 11 years	8356	2599	8.43	26.66	31.10	1.67
12 to 15 years	7630	1610	5.22	16.52	21.10	0.94
Total	30848	9748	31.60	100.00		

[a] Reference group is all substantiated cases of neglect.

Figure 2. Frequency of *Educational Neglect*[a] by *Child Age*



[a] Reference group is all substantiated cases of neglect.

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to 7 decreasing slightly (6%) among neglected children aged 12 to 15.

The *incidence* of educational neglect per 1000 children in the population also increased with age, showing no cases until children entered school-age, then increasing largely during the pre-teen years and leveling off during adolescence. While only 12.4% of substantiated *educational neglect* cases were accounted for by children aged 4 to 7, more than 40% of these cases were accounted for by children aged 8 to 11 and 12 to 15, respectively (see Table 2). Therefore, Hypothesis 2a was supported.

Hypothesis 3a. The incidence of failure to supervise–physical harm will be negatively related to child age. Among substantiated cases of neglect, the *frequency* of *failure to supervise-physical harm* was positively related to *child age* ($\chi^2 = 1373.06$, df = 4, $p < .0001$) (see Figure 3). The frequency of this form of neglect among children aged 1 to 3 years was 204% higher than that among infants younger than 1 year of age; this is triple the incidence for under-one-year-olds (see Figure 3). The incidence increased again by 31% among children aged four to seven years. It increased again slightly (5%) among children aged eight to eleven, and then decreased by 51% among children aged twelve to fifteen. Among all neglected infants, *failure to supervise–physical harm* accounted for less than one-third of cases, but this form of neglect accounted for one-half of neglected preschoolers, and approximately 40% of neglected children in the early and middle-school groups, respectively (see Table 3).

However, the *incidence* of this form of neglect per 1000 children in the population was quite steady between the ages of 0 and 11, then dropping in adolescence. Therefore, hypothesis 3a was not supported.

Hypothesis 4a. The incidence of failure to supervise–sexual abuse will be positively related to child age. Among substantiated cases of neglect, the frequency of *failure to*

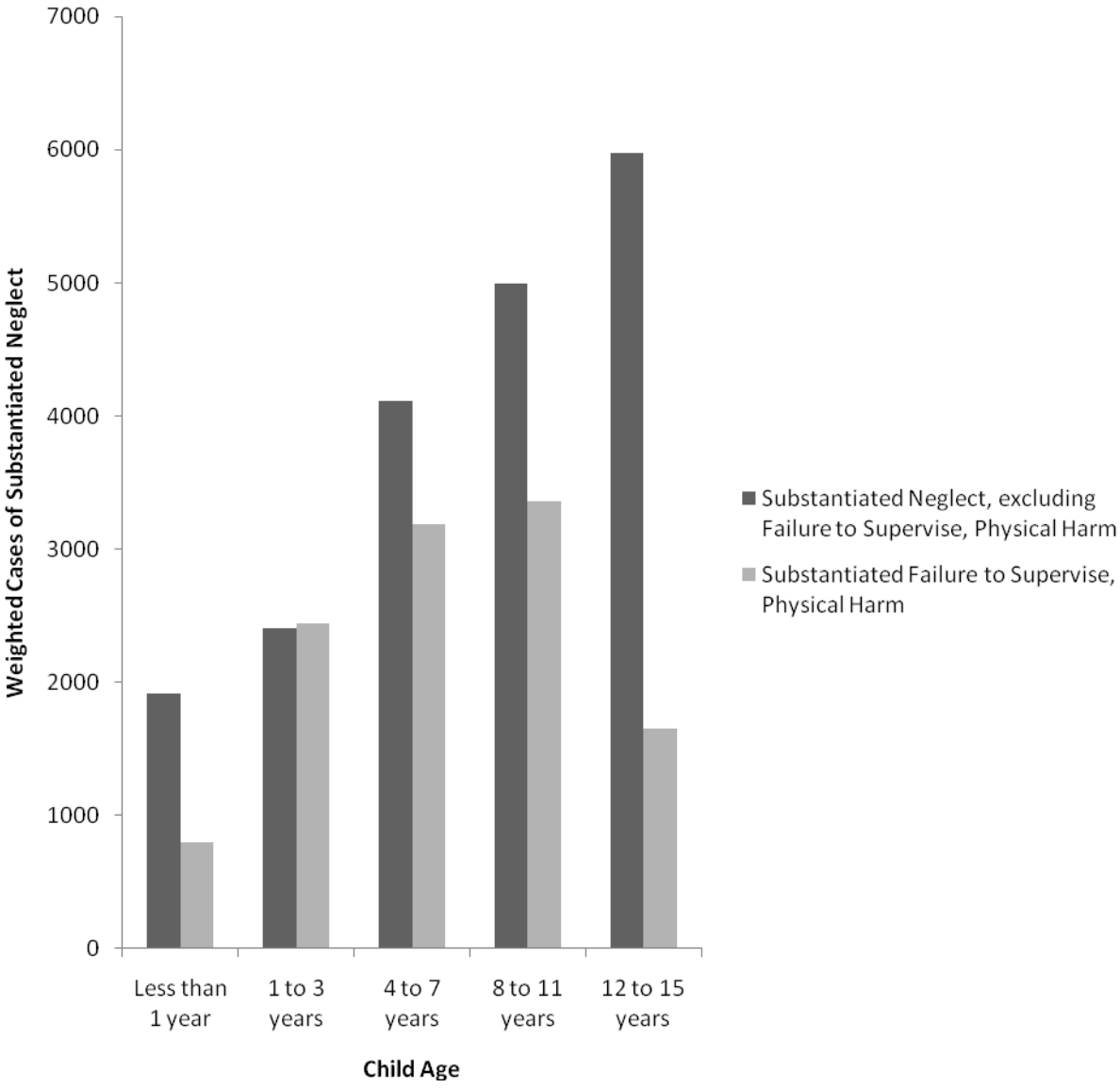
Table 2

Breakdown of Educational Neglect[a] *by Child Age*

Child Age	Frequency of Sub. Neglect (Weighted)	Frequency of Sub. *Educational neglect* (Weighted)	Percent of all Sub. Neglect Cases	Percent of all Sub. *Educational Neglect* Cases	Percent of Age Group Educationally Neglected[a]	Incidence of Sub. *Educational Neglect* per 1000 Population
Less than 1 year	2716	0	0.00	0.00	0.00	0.00
1 to 3 years	4846	0	0.00	0.00	0.00	0.00
4 to 7 years	7301	165	0.53	12.40	2.26	0.12
8 to 11 years	8356	601	1.95	45.15	7.19	0.39
12 to 15 years	7630	565	1.83	42.45	7.40	0.33
Total	30850	1331	4.31	100.00		

[a] Reference group is all substantiated cases of neglect.

Figure 3. Frequency of Failure to Supervise-Physical Harm[a] by *Child Age*



[a] Reference group is all substantiated cases of neglect.

Table 3

Breakdown of Failure to Supervise-Physical Harm by Child Age

Child Age	Frequency of Sub. Neglect (Weighted)	Frequency of *Failure to supervise -- physical harm* (Weighted)	Percent of all Sub. Neglect Cases	Percent of Sub. *Failure to supervise -- physical harm* Cases	Percent of Age Group experiencing *Failure to supervise -- physical harm*[a]	Incidence of Sub. *Failure to supervise -- physical harm*[a] per 1000 Population
Less than 1 year	2716	803	2.60	7.02	29.57	2.38
1 to 3 years	4847	2439	7.91	21.32	50.32	2.41
4 to 7 years	7301	3185	10.32	27.84	43.62	2.28
8 to 11 years	8355	3358	10.89	29.35	40.19	2.15
12 to 15 years	7630	1655	5.36	14.47	21.69	0.97
Total	30849	11440	37.08	100.00		

[a] Reference group is all substantiated cases of neglect.

supervise-sexual abuse was positively related to *child age* (χ^2 =216, df = 4, $p < .0001$). The frequency of this form of neglect among children aged 1 to 3 years was 219% higher than among infants younger than 1 year of age. The frequency increased again by 234% among children aged 4 to 7 years, again by 15% among children aged 8 to 11, and again by 30% among children aged 12 to 15 (see Table 4).

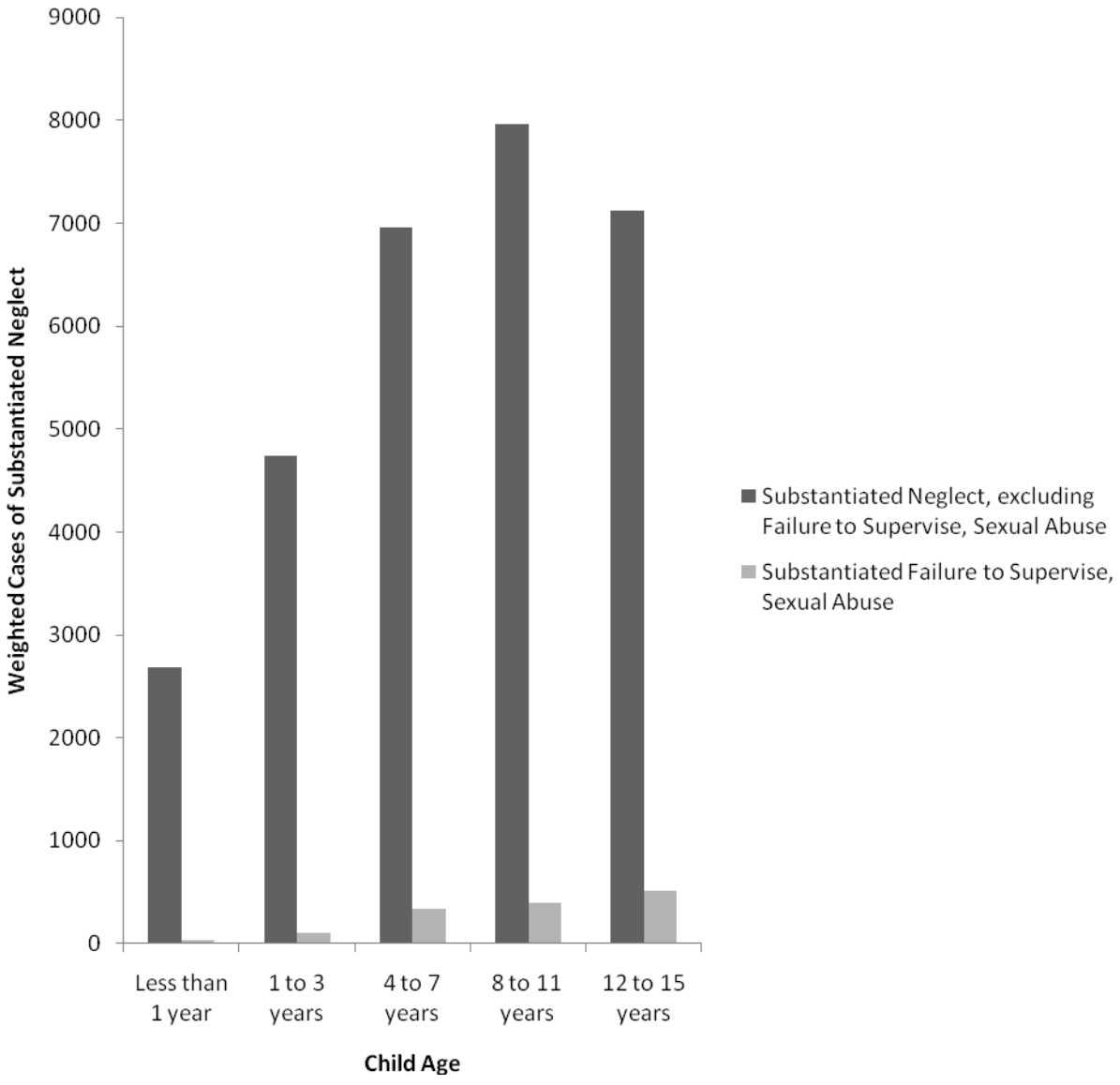
The *incidence* of this form of neglect per 1000 children in the population also increased with age. And while children under the age of 4 accounted for less than 10% of all *failure to supervise-sexual abuse* cases, children aged 4 to 7 and 8 to 11 accounted for approximately one-quarter of these cases, respectively, and adolescents accounted for approximately one-third of these cases. Therefore, hypothesis 4a was supported.

Hypothesis 5a. The incidence of medical neglect will be negatively related to child age. Among substantiated cases of neglect, the *frequency* of *medical neglect* was negatively related to *child age* (χ^2 = 528.88, df = 4, $p < .0001$). (see Figure 5). The frequency of this form of neglect among children under 1 year was 29% higher than among children aged 1 to 3 years. While the frequency then increased by 18% among children aged 4 to 7 years, and again by 23% among children aged 8 to 11, it then decreased by 52% among children aged 12 to 15.

Similarly, the *incidence* of this form of neglect per 1000 children in the population shows a peak among infants under age 1, followed by a decrease and leveling between ages 1 and 11, before dropping drastically in adolescence. Among neglected infants, 13% of cases were accounted for by *medical neglect* (see Table 5). This proportion decreased to 5% among preschoolers and then to 4% among children in the early and middle school years, respectively. Among neglected adolescents, only 2% of cases were accounted for by *medical neglect*. Therefore, hypothesis 5a was supported.

Figure 4.

Frequency of Failure to Supervise -- Sexual Abuse[a] by *Child Age*



[a] Reference group is all substantiated cases of neglect.

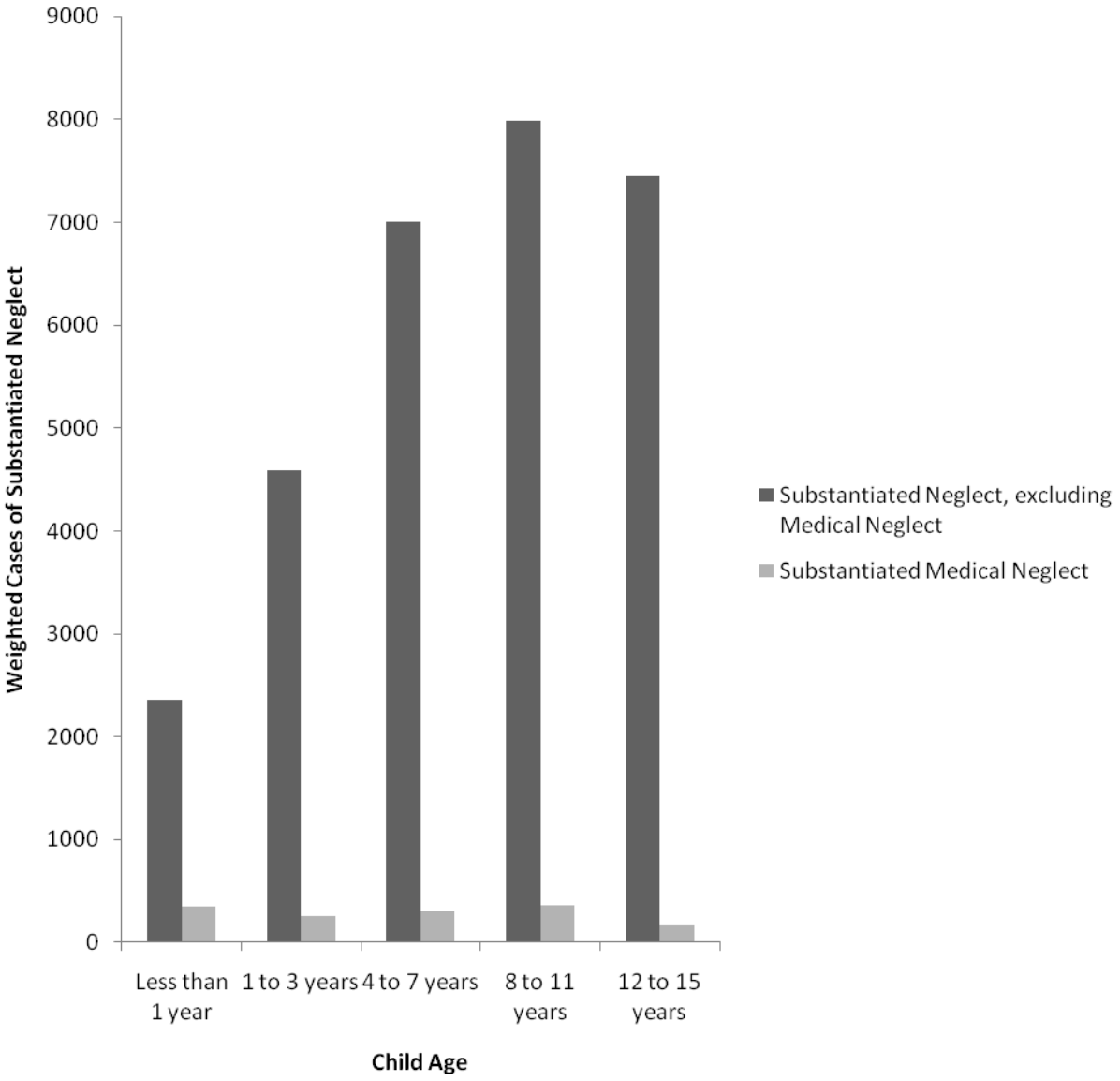
Table 4

Breakdown of Failure to Supervise-Sexual Abuse by Child Age

Child Age	Frequency of Sub. Neglect (Weighted)	Frequency of Sub. *Failure to supervise* -- *sexual abuse* (Weighted)	Percent of all Sub. Neglect Cases	Percent of all Sub. *Failure to supervise* -- *sexual abuse* Cases	Percent of Age Group experiencing *Failure to supervise* -- *sexual abuse*[a]	Incidence of Sub. *Failure to supervise* – *sexual abuse*[a] per 1000 Population
Less than 1 year	2716	35	0.11	2.54	1.29	0.10
1 to 3 years	4846	102	0.33	7.40	2.10	0.10
4 to 7 years	7301	341	1.11	24.73	4.67	0.24
8 to 11 years	8355	392	1.27	28.43	4.69	0.25
12 to15 years	7630	509	1.65	36.91	6.67	0.30
Total	30847	1379	4.47	100.00		

[a] Reference group is all substantiated cases of neglect.

Figure 5. Frequency of Medical Neglect[a] by *Child Age*



[a] Reference group is all substantiated cases of neglect.

Table 5

Breakdown of Medical Neglect by Child Age

Child Age	Frequency of Sub. Neglect (Weighted)	Frequency of Sub. *Medical Neglect* (Weighted)	Percent of all Sub. Neglect Cases	Percent of Sub. *Medical Neglect*	Percent of Age Group Medically Neglected [a]	Incidence of Sub. *Medical*[a] *Neglect* per 1000 Population
Less than 1 year	2716	354	1.15	24.43	13.03	1.05
1 to 3 years	4846	253	0.82	17.46	5.22	0.25
4 to 7 years	7300	298	0.97	20.57	4.08	0.21
8 to 11 years	8356	367	1.19	25.33	4.39	0.24
12 to 15 years	7630	177	0.57	12.22	2.32	0.10
Total	30848	1449	4.70	100.00		

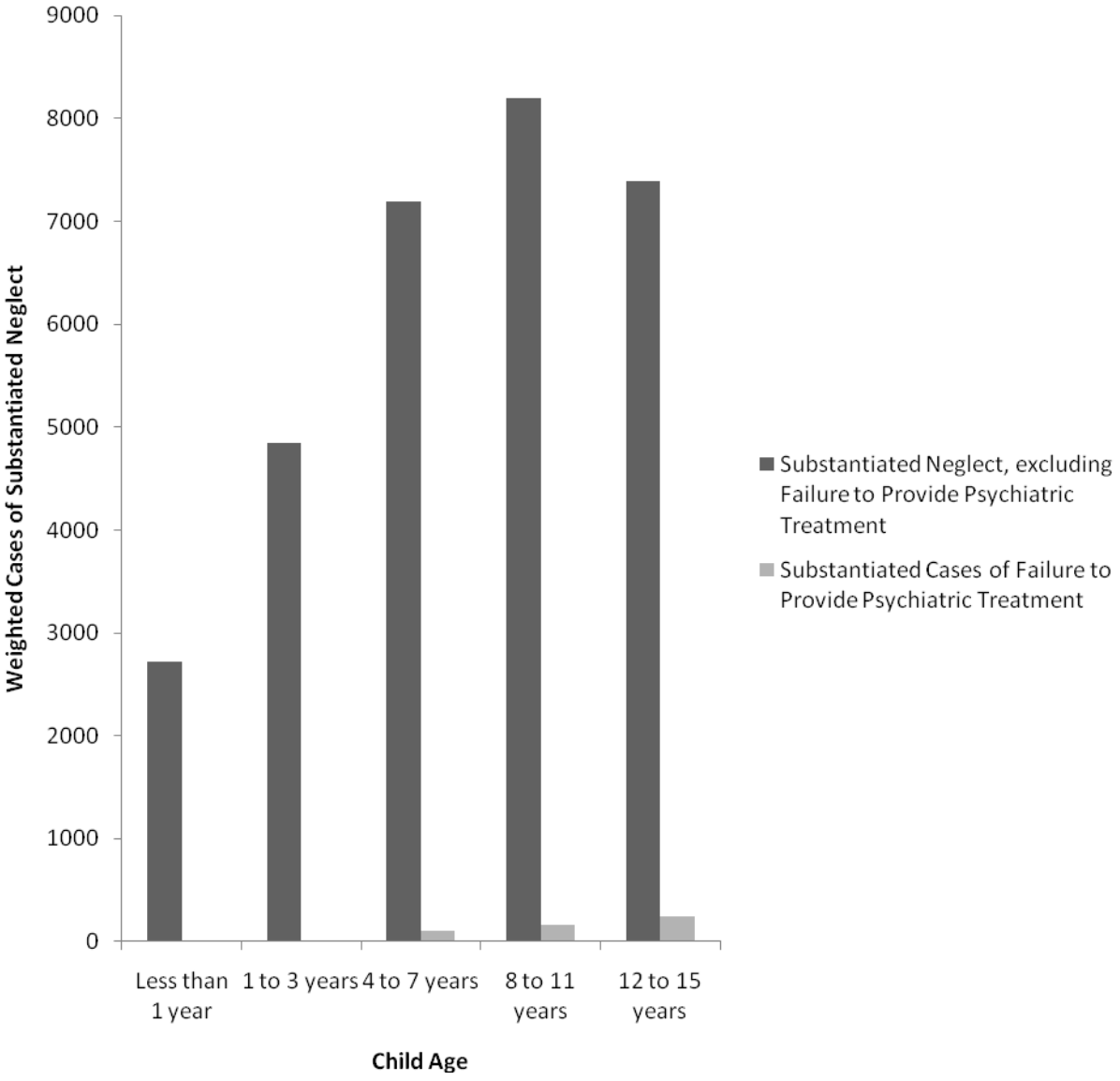
[a] Reference group is all substantiated cases of neglect.

Hypothesis 6a. The incidence of failure to provide psychiatric/psychological treatment will be positively related to child age. Among substantiated cases of neglect, the i*frequency* of *failure to provide psychiatric/psychological treatment* was positively related to *child age* (χ^2 =240.88, df = 4, $p < .0001$), therefore hypothesis 6a was supported (see Figure 6). The frequency of this form of neglect among children younger than age 4 was zero. The frequency among children aged 8-to-11 increased by 50% over that among 4- to 7-year-olds, and then increased again by 51% among children aged 12- to- 15.

The *incidence* of this form of neglect per 1000 children in the population was zero until school-age and then increased steadily across age groups. And among neglected children in the early school age group, this form of neglect accounted for approximately 1.5% of all substantiated neglect cases (see Table 6). This proportion increased to approximately 2% among children in the middle school years, and to approximately 3% among adolescents. The proportion of substantiated cases of *failure to provide psychiatric/psychological treatment* accounted for by each age group increased steadily across age groups. Therefore, hypothesis 6a was supported.

Hypothesis 7a. The incidence of permitting criminal behaviour will be positively related to child age. Of substantiated cases of neglect, the *frequency* of *permitting criminal behaviour* was positively related to *child age* (χ^2 =852.54, df = 4, $p < .0001$), therefore hypothesis 7a was supported (see Figure 7). The frequency of this form of neglect among all children under the age of 4 was 0%. The frequency among children aged 8 to 11 increased by 468% over that found among 4- to 7-year-olds, and then increased again by 192% among children aged 12 to 15.

Figure 6. Frequency of Failure to Provide Psychiatric/Psychological Treatment[a] by *Child Age*



[a] Reference group is all substantiated cases of neglect.

Table 6

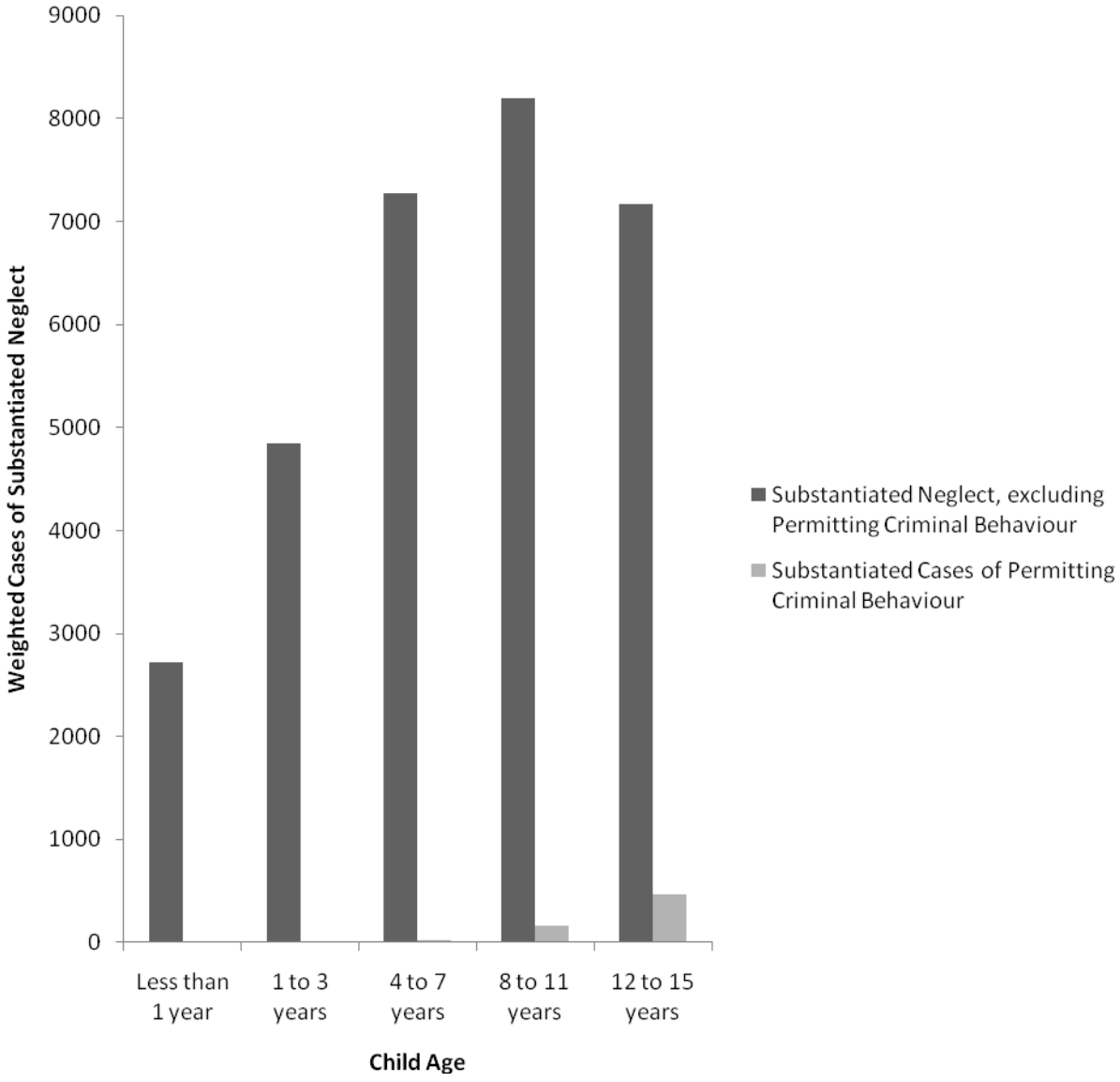
Breakdown of Failure to Provide Psychiatric/Psychological Treatment by Child Age

Child Age	Frequency of Sub. Neglect (Weighted)	Frequency of Sub. *Failure to Provide Psych. Treatment* (Weighted)	Percent of all Substantiated Neglect Cases	Percent of Sub. *Failure to Provide Psych.* Treatment Cases	Percent of Age Group experiencing *Failure to Provide Psych. Treatment*[a]	Incidence of Sub. *Failure to Provide Psych. Treatment*[a] per 1000 Population
Less than 1 year	2716	0	0.00	0.00	0.00	0.00
1 to 3 years	4846	0	0.00	0.00	0.00	0.00
4 to 7 years	7301	107	0.35	21.02	1.47	0.08
8 to 11 years	8355	160	0.52	31.43	1.92	0.10
12to15 years	7630	242	0.78	47.54	3.17	0.14
Total	30848	509	1.65	100.00		

[a] Reference group is all substantiated cases of neglect.

Figure 7.

Frequency of *Permitting Criminal Behaviour*[a] by Child Age



[a] Reference group is all substantiated cases of neglect.

The *incidence* of this form of neglect per 1000 children in the population was zero until school-age and then increased steadily across age groups. This form of neglect accounted for less than 1% of all substantiated neglect cases among children in the early school years (see Table 7). This proportion increased to almost 2% among children in the middle school years, and to 6% among adolescents. While the proportion of cases of *permitting criminal behaviour* accounted for by children in the early school years was less than 5%, this proportion increased to almost one-quarter among children in the middle school years and to almost three-quarters among adolescents. Therefore, hypothesis 7a was supported.

Hypothesis 8a. The incidence of abandonment will be unrelated related to child age. Of substantiated cases of neglect, the *frequency* of *abandonment* was positively related to *child age* (χ^2 =2256.61, df = 4, $p < .0001$) (see Figure 8). The frequency of this form of neglect among children aged 1 to 3 years was 66% higher than among infants younger than 1 year of age. The frequency increased again by 51% among children aged 4 to 7 years. It increased only slightly (9%) among children aged 8 to 11, and then increased by 261% among children aged 12 to 15. The *incidence* of this form of neglect per 1000 children in the population dropped and leveled between ages 1 and 11, then peaked in adolescence. Therefore, hypothesis 8a was supported. Approximately 7% of each group of neglected children between infancy and the middle school years was accounted for by *abandonment* (see Table 8). But this proportion increased to more than 25% among adolescents. More than one-half of all *abandonment* cases were accounted for by adolescents.

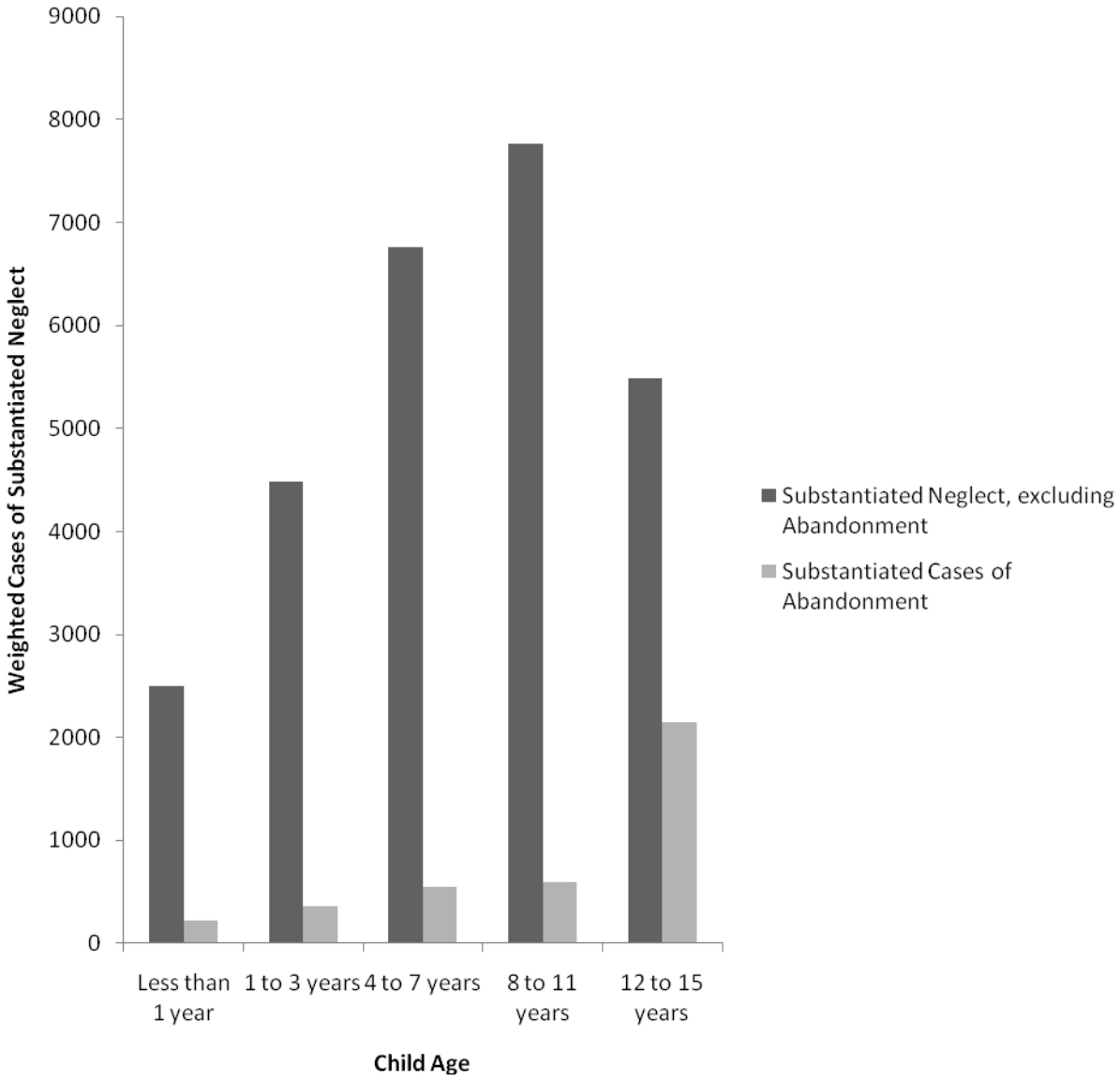
Table 7

Breakdown of Permitting Criminal Behaviour by Child Age

Child Age	Frequency Sub. Neglect (Weighted)	Frequency of Sub. *Permitting Criminal Behaviour* (Weighted)	Percent of all Sub. Neglect Cases	Percent of Sub. *Permitting Criminal Behaviour* Cases	Percent of Age Group experiencing *Permitting Criminal Behaviour*[a]	Incidence of Sub. *Permitting Criminal Behaviour*[a] per 1000 Population
Less than 1 year	2716	0	0.00	0.00	0.00	0.00
1 to 3 years	4846	0	0.00	0.00	0.00	0.00
4 to 7 years	7301	28	0.09	4.30	0.38	0.02
8 to 11 years	8355	159	0.52	24.42	1.90	0.10
12 to 15 years	7630	464	1.50	71.27	6.08	0.27
Total	30848	651	2.11	100.00		

[a] Reference group is all substantiated cases of neglect.

Figure 8. Frequency of Abandonment[a] by *Child Age*



[a] Reference group is all substantiated cases of neglect.

Table 8

Breakdown of Abandonment by Child Age

Child Age	Incidence of Sub. Neglect (Weighted)	Incidence of Sub. *Abandonment* (Weighted)	Percent of all Sub. Neglect Cases	Percent of *Abandonment* Cases	Percent of Age Group experiencing *Abandonment*[a]	Incidence of Sub. *Abandonment*[a] per 1000 Population
Less than 1 year	2716	217	0.70	5.62	7.99	0.64
1 to 3 years	4846	360	1.17	9.33	7.43	0.32
4 to 7 years	7301	543	1.76	14.07	7.44	0.39
8 to 11 years	8356	594	1.93	15.39	7.11	0.38
12 to15 years	7630	2145	6.95	55.58	28.11	1.25
Total	30849	3859	12.51	100.00		

[a] Reference group is all substantiated cases of neglect.

Factor Analysis

Before conducting the regression analyses, a principal components factor analysis was carried out on the predictor variables in order to address co-linearity issues. If groups of predictor variables were found to share variances (i.e., loaded onto the same factor), the factor would be used in the regression analysis in place of the individual predictors. In the initial factor analysis, a three-factor solution was extracted (Table 9). Seven of the nine predictor variables had eignenvalues of greater than 0.5 on the first Factor: *domestic violence, caregiver -- criminal activity, caregiver -- cognitive impairment, ,caregiver -- few social support, caregiver mental health issues, caregiver alcohol and drug abuse,* and *poverty*. *Caregiver age* and *caregiver -- non biological parent* loaded on the second factor. *Caregiver -- non biological parent* was the only predictor to load onto the third factor.

To better clarify the factor structure, a varimax rotation was applied. The rotation converged in five iterations and, again, a three-factor solution was extracted (Table 10). Mental health, social support and cognitive impairment showed the strongest loadings on Factor 1. *Caregiver alcohol and drug abuse* and *caregiver -- criminal activity* loaded onto a second factor. *Caregiver age* and *caregiver -- non biological parent* loaded onto a third factor.

On the basis of these findings, I constructed three factors to be used as predictors in the regression analyses. Factor 1 – Mental, Social and Cognitive Health - comprises mental health, social support and cognitive impairment. Factor 2 – Antisocial Behaviour comprises *caregiver alcohol and drug abuse* and *caregiver -- criminal activity*; and Factor 3 – Biological Characteristics- comprises *caregiver age* and *caregiver -- non biological parent*. The predictor variables that did not load strongly on any of these three factors were entered individually into the regression equations; these were *poverty* and *caregiver – victim of domestic violence.*

Table 9

Eigenvalues for Predictor Variables in the Three-Factor Solution of the Principal Component Analysis

	Factor		
	1	2	3
Caregiver age	-0.21	0.74	0.07
Poverty	0.51	-0.38	-0.12
Caregiver alcohol and drug abuse	0.66	-0.24	0.42
Caregiver mental health issues	0.66	0.32	-0.19
Caregiver – few social supports	0.56	0.23	-0.39
Caregiver -- cognitive impairments	0.55	0.18	-0.44
Caregiver -- criminal activity	0.64	-0.21	0.44
Caregiver -- non biological parent	0.09	0.53	0.59
Caregiver – victim of domestic violence	0.71	0.28	0.07

Table 10

Eigenvalues for Predictor Variables in the Three-Factor Solution of the Varimax Rotation[a]

	Factor		
	1	2	3
Caregiver age	0.12	-0.31	0.69
Poverty	0.27	0.39	-0.44
Caregiver alcohol and drug abuse	0.14	0.80	-0.07
Caregiver mental health issues	0.72	0.23	0.11
Caregiver – few social supports	0.72	0.06	-0.06
Caregiver -- cognitive impairments	0.71	0.03	-0.12
Caregiver -- criminal activity	0.13	0.79	-0.03
Caregiver – non-biological parent	0.04	0.30	0.74
Caregiver – victim of domestic violence	0.56	0.47	0.13

[a] Rotation converged in 5 iterations.

Family Characteristics Findings

Hypothesis 1b. Physically neglecting families will be characterized primarily by poverty. In the forward step-wise regression analysis, *poverty* was the primary predictor of substantiated *physical neglect*, accounting for 8% of the variance ($F = 81.59$, $\beta = .02$, $R^2 = .08$, $p = .00$); as *poverty* increased, so did the incidence of *physical neglect*. *Caregiver age* also entered the model, accounting for an additional 2% of the variance ($F = 54.632$, $\beta = -.16$, $R^2 = .024$, $p = .00$); among substantiated cases of neglect, younger *caregiver age* predicted a higher incidence of *physical neglect*.

In the factor analysis, *caregiver age* had been found to cluster with *caregiver -- non biological parent* to form a Biological Characteristics factor, suggesting that these two variables are interrelated. To investigate whether this interrelationship was confounding this finding, a second forward step-wise regression equation was run without *caregiver age* variable, but with *caregiver -- non biological parent*. If this second regression analysis found that *caregiver – non-biological parent* was a significant predictor of *physical neglect* when *caregiver age* was eliminated, we could conclude that the Biological Characteristics factor was the actual predictor. In this second regression analysis, only *poverty* entered the model ($F = 82.38$, $\beta = .14$, $R^2 = .079$, $p = .00$). Therefore, it appears that younger *caregiver age* predicts substantiated *physical neglect* independently of *caregiver –non-biological parent*.

Hypothesis 2b. Educationally neglecting families will be characterized primarily by young caregiver age, caregiver alcohol and drug abuse, and caregiver mental health issues. In the forward step-wise regression analysis, *caregiver mental health issues* was the primary predictor of substantiated *physical neglect*, accounting for 1% of the variance ($F = 6.75$, $\beta = .08$, $R^2 = .01$, $p = .01$); as *caregiver mental health issues* increased, so did *educational neglect*, which

supported the hypothesis. *Caregiver age* also entered the model, accounting for an additional 1% of the variance ($F = 6.30$, $\beta = .08$, $R^2 = .01$, $p = .02$). However, this relationship was positive, indicating that as *caregiver age* increased, so did *educational neglect*. This finding did not support the hypothesis.

In the factor analysis, *caregiver mental health issues* had been found to cluster with *caregiver – cognitive impairments* and c*aregiver -- few social supports* to form a Mental, Social and Cognitive Health factor, suggesting that these three variables are interrelated. To investigate whether this interrelationship was confounding this finding, a second forward step-wise regression equation was run without the *caregiver mental health issues* variable, but with *caregiver -- cognitive impairments* and *caregiver – few social supports*. Next a third forward step-wise regression equation was run without the *caregiver -- cognitive impairments* or c*aregiver mental health issues* variables. If these second and third regression analyses found that *caregiver mental health issues* and *caregiver -- few social supports* were significant predictors of *educational neglect* when c*aregiver mental health issues* was eliminated, we could conclude that the Mental, Social and Cognitive Health factor was the actual predictor. In this second regression analysis, *caregiver age* ($F = 5.31$, $\beta = .07$, $R^2 = .01$, $p = .02$) and c*aregiver -- cognitive impairments* ($F = 4.95$, $\beta = .07$, $R^2 = .01$, $p = .03$) entered the model. In the third regression analysis, *caregiver age* ($F = 6.78$ $\beta = .08$, $R^2 = .01$, $p = .01$) and *caregiver -- few social supports* ($F = 6.41$, $\beta = .08$, $R^2 = .01$, $p = .01$) entered the model. Therefore, as greater *caregiver mental health issues,* greater cognitive impairment and fewer social supports all predicted a higher incidence of *educational neglect*, it appears that the Mental, Social and Cognitive Health factor predicts substantiated *educational neglect*.

Also in the factor analysis, *caregiver age* has been found to cluster with the *caregiver -- non biological parent* variable to form a Biological Characteristics factor, suggesting these two variables are interrelated. To investigate whether this interrelationship was confounding this finding, a second forward step-wise regression equation was run without the *caregiver age* variable, but with the *caregiver -- non biological parent* variable. If this second regression analysis found the *caregiver -- non biological parent* variable was a significant predictor of *educational neglect* when *caregiver age* was eliminated, we could conclude that the Biological Characteristics factor was the actual predictor. In this second regression analysis *caregiver -- non biological parent* did not enter the model. Therefore, it appears that the Biological Characteristic factor does not predict *educational neglect*.

Hypothesis 3b. Failure to supervise-physical harm will be characterized by caregiver alcohol and drug abuse, caregiver mental health issues, and caregiver -- few social supports. In the forward step-wise regression analysis, *poverty* was the primary predictor of substantiated failure to supervise-physical harm, accounting for 2% of the variance ($F = 16.31$, $\beta = -.13$, $R^2 = .02$, $p = .00$); as *poverty* increased, the incidence of this form of neglect decreased. *Caregiver mental health issues* also entered the model, accounting for an additional 1% of the variance ($F = 10.94$, $\beta = -.08$, $R^2 = .01$, $p = .02$); as *caregiver mental health issues* increased, failure to supervise-physical harm decreased. Neither of these findings supported the hypothesis. *Caregiver -- non biological parent* also entered the model, accounting for an additional 1% of the variance ($F = 8.86$, $\beta = -.07$, $R^2 = .01$, $p = .03$), indicating that biological parents were more likely than non-biological parents to fail to supervise their children, resulting in physical harm.

In the factor analysis, c*aregiver mental health issues* had been found to cluster with *caregiver -- cognitive impairments* and c*aregiver -- few social supports* to form a Mental, Social

and Cognitive Health factor, suggesting that these three variables are interrelated. To investigate whether this interrelationship was confounding this finding, a second forward step-wise regression equation was run without the *caregiver mental health issues* variable, but with *caregiver--cognitive impairments* and c*aregiver--few social supports*. Next a third forward step-wise regression equation was run without the *caregiver- cognitive impairments* or *caregiver mental health issues* variables. If these second and third regression analyses found that *caregiver mental health issues* and c*aregiver- few social supports* were significant predictors of *educational neglect* when *caregiver mental health issues* was eliminated, we could conclude that the Mental, Social and Cognitive Health factor was the actual predictor. In this second regression analysis, *caregiver--victim of domestic violence* ($F = 19.02$, $\beta = -.13$, $R^2 = .02$, $p = .00$) , *poverty* ($F = 13.80$, $\beta = -.09$, $R^2 = .01$, $p = .03$),*caregiver – non-biological parents* ($F = 11.01$, $\beta = -.07$, $R^2 = .02$, $p = .01$) and *caregiver -- cognitive impairment*s ($F = 6.78$ $\beta = .08$, $R^2 = .01$, $p = .01$) entered the model. In the third regression analysis *caregiver -- few social supports* did not enter the model. Therefore, it appears that the Mental, Social and Cognitive Health factor does not predict *educational neglect*.

Also in the factor analysis, *caregiver age* has been found to cluster with the *caregiver– non-biological parents* variable to form a Biological Characteristics factor, suggesting these two variables are interrelated. To investigate whether this interrelationship was confounding this finding, a second forward step-wise regression equation was run without the *caregive – non-biological parents* variable, but with the *caregiver age* variable. If this second regression analysis found the *caregiver age* variable was a significant predictor of *educational neglect* when *caregiver-- non biological parent* was eliminated, we could conclude that the Biological Characteristics factor was the actual predictor. In this second regression analysis *caregiver age*

did not enter the model. Therefore, it appears that the Biological Characteristic factor does not predict *failure to supervise--physical harm*.

Hypothesis 4b. Failure to supervise-sexual abuse will be characterized by caregiver alcohol and drug abuse and caregiver mental health issues, and caregiver--few social supports. In the forward step-wise regression analysis, *caregiver -- victim of domestic violence* was the only predictor of substantiated failure to supervise-sexual abuse, accounting for 2% of the variance ($F = 15.93$, $\beta = -.13$, $R^2 = .02$, $p = .00$); as *caregiver--victim of domestic violence* increased, this form of neglect decreased. Therefore, this hypothesis was not supported

Hypothesis 5b. Medical neglect will be characterized by parental cognitive impairment, and caregiver mental health issues. In the forward step-wise regression analysis, *caregiver--victim of domestic violence* was the only predictor of substantiated *medical neglect*, accounting for 1% of the variance ($F = 6.73$, $\beta = -.84$, $R^2 = .01$, $p = .01$); as *caregiver--victim of domestic violence* increased, *medical neglect* decreased. Therefore, this hypothesis was not supported.

Hypothesis 6b. Failure to provide psychological/psychiatric treatment will be characterized by caregiver--cognitive impairments, and caregiver mental health issues. In the forward step-wise regression analysis, *caregiver--criminal activity* was the only predictor of substantiated *failure to provide psychological/psychiatric treatment*, accounting for 1% of the variance ($F = 4.47$, $\beta = -.07$, $R^2 = .01$, $p = .04$); as *caregiver--criminal activity* increased, this form of neglect decreased. Therefore, this hypothesis was not supported.

Hypothesis 7b. Permitting criminal behaviour will be characterized by parental involvement in crime and caregiver alcohol and drug abuse. In the forward step-wise regression analysis, *caregiver age* was the primary predictor of substantiated cases of *permitting criminal behaviour*, accounting for 1% of the variance ($F = 13.62$, $\beta = .12$, $R^2 = .01$, $p = .00$); as *caregiver*

age increased, this form of neglect also increased. *Caregiver mental health issues* also entered the model, accounting for an additional 1% of the variance ($F = 6.24$, $\beta = -.08$, $R^2 = .01$, $p = .01$); as *caregiver mental health issues* increased, this form of neglect decreased. Therefore, this hypothesis was not supported

In the factor analysis, *caregiver age* was found to cluster with *the caregiver– non-biological parents* variable to form a Biological Characteristics factor, suggesting that these two variables are interrelated. To investigate whether this interrelationship was confounding this finding, a forward step-wise regression equation was run without the *caregiver age* variable, but with the *caregiver– non-biological parents* variable. If this second regression analysis found the *caregiver– non-biological parents* variable was a significant predictor of *permitting criminal behaviour* when *caregiver age* was eliminated, we could conclude that the Biological Characteristics factor was the actual predictor. In this second regression analysis *caregiver– non-biological parents* did not enter the model. Therefore, it appears that the Biological Characteristics factor does not predict *permitting criminal behaviour*.

Also, in the factor analysis, *caregiver mental health issues* had been found to cluster with c*aregiver -- cognitive impairments* and *caregiver -- few social supports* to form a Mental, Social and Cognitive Health factor, suggesting that these three variables are interrelated. To investigate whether this interrelationship was confounding this finding, a second forward step-wise regression equation was run without the *caregiver mental health issues* variable, but with c*aregiver--cognitive impairments* and *caregiver--few social supports*. If this second, and possibly third, regression analyses found that *caregiver mental health issues* and c*aregiver--few social supports* were significant predictors of *educational neglect* when *caregiver mental health issues* was eliminated, we could conclude that the Mental, Social and Cognitive Health factor

was the actual predictor. In this second regression analysis, neither *caregiver--cognitive impairments* nor *caregiver--few social supports* entered the model. Therefore, it appears that the Mental, Social and Cognitive Health factor does not predict substantiated *educational neglect*.

Hypothesis 8b. Caregivers who abandon their children will tend to be non-biological parents, to have low levels of social support and to have been victims of domestic violence. In the forward step-wise regression analysis, *caregiver -- non-biological parents* was the primary predictor of substantiated *abandonment* accounting for 4% of the variance ($F = 41.62$, $\beta = .21$, $R^2 = .04$, $p = .00$); non-biological parents were more likely to abandon their children than biological parents. This finding partially supported the hypothesis. *Poverty* also entered the model, accounting for an additional 2% of the variance ($F = 29.67$, $\beta = -.13$, $R^2 = .02$, $p = .00$); as *poverty* increased, *abandonment* decreased. *Caregiver age* also entered the model, accounting for an additional 1% of the variance ($F = 21.71$, $\beta = .08$, $R^2 = .01$, $p = .02$); as *caregiver age* increased, *abandonment* increased.

In the factor analysis, *caregiver age* was found to cluster with the *caregiver– non-biological parents* variable to form a Biological Characteristics factor, suggesting that these two variables are interrelated. Given that both these variables entered the model for this hypothesis, it appears that the Biological Characteristic factor and *poverty* predict *permitting criminal behaviour*.

CHAPTER IV

Discussion

Given the documented importance of parental responsiveness, sensitivity and nurturance in the early years to healthy development throughout life (McCain & Mustard, 1999), and given the high incidence of child neglect in Canada (Trocmé et al., 2005), it is of critical and urgent importance that we increase our understanding of the context in which child neglect occurs. Recently, neglect has been constructed within the framework of developmental victimology, an emerging field of study that recognizes the unique vulnerabilities and social dependencies of child victims, as well as the differential causes, effects and definitions of victimization at different ages throughout childhood (Finklehor, 2007).

The dependencies of children change dramatically between birth and age 18. Therefore, the form that neglect takes could vary depending on the child's developmental stage, as well as the family's ability to meet the developmental needs particular to that stage. From this perspective, the nature and family context of various types of neglect would be expected to vary across developmental stages. Surprisingly, very little neglect research has been conducted from a developmental perspective. The present study addressed this knowledge gap.

My overall hypothesis was that age trends in the incidence of different types of child neglect would vary with the developmental needs of children, and that the family contexts of these neglect types would vary accordingly. I generated a series of eight hypotheses setting out the specific relationships I expected to find among *child age* and each sub-type of neglect, and another series of 8 hypotheses between family characteristics and each sub-type of neglect.

Child Neglect and Age-Related Dependencies

Using the developmental victimology framework, I predicted that the incidence of child neglect would vary depending on children's particular vulnerabilities at different ages. Overall, this hypothesis was strongly supported, and most often in the expected direction. However, a surprising finding did emerge as well.

Supported hypotheses. I predicted that as children develop, their dependence on their caregivers for getting them to school, to protect them from sexual abuse and from engaging in criminal behaviour, and to meet their needs for psychological or psychiatric treatment would increase. I also predicted that these age-related vulnerabilities would be reflected in age-related variation in specific forms of neglect. As predicted, among substantiated cases of neglect, *child age* was positively related to the incidence of *educational neglect*, *failure to supervise – sexual abuse*, *permitting criminal behaviour*, and *failure to provide psychiatric/psychological treatment*. I also predicted that as children develop, their dependence on their caregivers to provide for their physical needs and ensure medical treatment would decrease, and this trend would be reflected in age-related variation in the incidences of *physica*l and *medical neglect*. These hypotheses also were supported; among substantiated cases of child neglect, the incidence of *physical neglect* and *medical neglect* was negatively related to *child age*. Finally, I predicted that because children's dependence on their caregivers to maintain their care and custody remains constant throughout development, the incidence of *abandonment* would be unrelated to *child age; this hypothesis was also supported.*

Together, these findings provide support for the developmental victimology framework. In each case, the incidence of a particular form of child neglect was associated with a particularly relevant developmental vulnerability.

Unsupported hypotheses. One age-related hypothesis was not supported by the findings. I predicted that with the development of understanding and impulse control, children would become less dependent on their caregivers to supervise their behaviour and ensure their physical safety. However, the frequency of *failure to supervise--physical harm* increased with *child age*. Close examination of the findings revealed that the proportion of neglect accounted for by this form was highest among preschoolers and lowest among adolescents, providing some support for the hypothesis. But even so, the proportion of neglect accounted for by this form was second lowest among infants and twice as high among children in the early and middle school years. These surprising findings might be partially explained by bias in the processes of reporting and substantiation. For example, medical professionals might be more likely to normalize bumps and bruises on an active toddler than an on older child, resulting in lower reporting rates among preschoolers. Child welfare personnel might be less likely to substantiate this form of neglect among preschoolers than among older children for the same reason. Further, the likelihood of physical injury being detected and reported may increase as children enter school. The large drop in the frequency of *failure to supervise--physical harm* in adolescence might reflect the predicted decrease in children's physical dependency in this stage.

Child Neglect and Family Characteristics

I predicted that, if the frequency of each type of neglect is related to children's levels of dependency on their caregivers, this might indicate the family context in which neglect is occurring is particularly unresponsive to the childhood needs most relevant to that form of neglect. I hypothesized that the family context typifying each form of neglect would vary according to children's needs.

The findings for this second series of hypotheses were largely unsupported by the findings. Although some findings were statistically significant, and in the predicted direction, their practical significance is highly questionable. Only one family characteristic accounted for more than 5% of the variance in any form of neglect. The remaining family characteristics accounted for 2% or less of the variance in any form of neglect. I had predicted that physically neglecting families would be characterized primarily by poverty. Indeed, *poverty* was the primary predictor of substantiated *physical neglect*, accounting for 8% of the variance. This finding supports previous literature reporting that physical neglect is most strongly associated with the family's demographic characteristics, including neighbourhood poverty (Drake & Pandey, 1996) low income and (in the US) *Aid to Families with Dependent Children* status (Jones & McCurdy, 1992). *Caregiver age* also entered the model for this form of neglect; among substantiated cases of neglect, younger *caregiver age* predicted a higher incidence of *physical neglect*. However, this variable accounted for only 2% of the total variance, suggesting that it is not a reliable predictor of *physical neglect*.

My prediction that educationally neglecting families would be characterized primarily by young *caregiver age, caregiver alcohol and drug abuse*, and *caregiver mental health issues* was partially – but weakly – supported. *Caregiver mental health issues* accounted for 1% of the variance in *educational neglect*. But *caregiver age* was positively related to this form of neglect, also accounting for 1% of the variance, and *caregiver alcohol and drug abuse* was not a predictor of *educational neglect*.

I predicted *failure to supervise-physical harm and failure to supervise-sexual abuse* would be predicted primarily by *caregiver alcohol and drug abuse, caregiver mental health issues*, and *caregiver--few social supports*. However, *poverty* was the primary predictor of the

former form of neglect, followed by *caregiver mental health issues*; together these variables accounted for only 3% of the variance in this form of neglect. *Caregiver--victim of domestic violence* was the only predictor of the latter form of neglect, accounting for only 2% of the variance. Likewise, *caregiver-victim of domestic violence* was the only predictor of *medical neglect*, accounting for only 1% of the variance, and showing a negative relationship; as *caregiver--victim of domestic violence* increased, *medical neglect* decreased.

Failure to provide psychological/psychiatric treatment was predicted to be characterized primarily by *caregiver--cognitive impairments* and *caregiver mental health issues*. In fact, *caregiver--criminal activity* was the only predictor of this form of neglect, and it accounted for only 1% of the variance. While I had predicted that *permitting criminal behaviour* would be characterized by parental involvement in crime and alcohol/drug abuse, *caregiver age* was the primary predictor of this form of neglect, followed by *caregiver mental health issues*; together, these variables accounted for only 2% of the variance.

My prediction that caregivers who abandon their children would tend to be non-biological parents, to have few social support, and to have been victims of domestic violence was partially – but weakly – supported. Non-biological parents were more likely than biological parents to abandon their children. But this variable accounted for only 4% of the variance in *abandonment*. The other predictors of *abandonment* were *poverty* and *caregiver age*. These two variables were related to *abandonment* in a surprising direction: lower levels of *abandonment* were predicted by higher levels of *poverty* and younger *caregiver age*. The fact that these two variables together accounted only for an additional 3% of the variance in this form of neglect suggest that they are not highly reliable predictors in any case.

The small proportions of variance in any form of neglect that were accounted for by any family characteristic (with the exception of *physical neglect* and *poverty*) suggest that the family characteristics measured in the present study do not play a substantial role in any of the eight forms of neglect examined. This is a very surprising finding, given the important role often ascribed to contextual variables. It is particularly interesting that the level of a family's social supports did not play an important role in any type of neglect. Several previous studies have found a negative relationship between social support and neglect (Coohey, 1995, 1998, Crittenden, 1988, Gavdin et al., 1993 in Coohey 1998). My unexpected findings raise questions about the measurement of family characteristics in the present study. These variables were based on child welfare workers' perceptions, rather than objective measures. For example, caregivers' level of social support was assessed during the child welfare investigation, but not externally validated.

Limitations of the Present Study

The present findings should be considered within the context of the study's limitations. First, the data set consisted exclusively of neglect that had been detected and reported to the child welfare system. Therefore, the findings do not address the many cases that were never identified or referred for investigation. Second, I selected only those cases in which neglect was the primary form of maltreatment substantiated. All cases in which neglect was a secondary or tertiary form of maltreatment were excluded. While this approach provided a more homogeneous set of neglect cases, it also excluded many cases in which neglect had been substantiated. It might be the case that family characteristics are more powerful predictors in situations where neglect accompanies other forms of maltreatment, but is not the primary form.

Third, only substantiated cases of neglect were examined. I excluded those cases in which neglect was not substantiated but remained suspected. This decision allowed me to control for the level of evidence and certainty existing in each case, but it likely eliminated a number of cases of actual neglect that, for one reason or another, were not substantiated at the time of data collection. Fourth, non-biological caregivers were collapsed into a single category that included common-law partners, foster parents, adoptive parents, step-parents and grandparents. It might be the case that this categorization masked the power of the child-caregiver relationship to predict particular forms of neglect.

Fifth, the measure of *poverty* used in the present study was a proxy measure, rather than an accurate measure of income relative to the low-income cut-off. This measure might have failed to capture the relationship between *poverty* and various forms of neglect.

Directions for Future Research

The present findings raise many questions meriting further investigation. For example, more in-depth studies, including qualitative studies, of neglectful caregivers could shed more light on the role of family characteristics in neglect. Family characteristics should be studied in relation to region, rural-urban location, and other geographical variables that might affect families' access to services. Such variations could affect the incidence of neglect, "washing out" the impact of family characteristics on neglect when examined at a national level. Finally, the role of gatekeepers needs to be investigated to determine the degree to which they mediate the role of developmental dependencies in neglect. For example, it is unclear whether the positive association found between *child age* and *physical neglect* actually contradicts the developmental victimology framework or whether it reflects a detection and reporting bias.

Conclusion

The study of child neglect has come a long way from the "neglect of neglect" period, as researchers have challenged assumptions and begun to examine neglect as multi-dimensional and unique. The present findings demonstrate that the developmental victimology framework is a promising approach to understanding the variation in the types of neglect children experience. They also suggest that the role of family characteristics in neglect is not as simple or obvious as we might assume. Collectively, the results of this study illustrate the complex and multi-dimensional nature of child neglect in Canada and point to further directions for increasing our understanding of this form of maltreatment.

References

Behl, L. E., Conyngham, H. A., & May, P. F. (2003). Trends in child maltreatment literature. *Child Abuse & Neglect, 27*, 215-229.

Beeman, S.K. (1997). Reconceptualizing social support and its relationship to child neglect. *Social Service Review*, *71(3)*, 421-440.

Brayden, R. M., Altemeier, W. A., Tucker, D. D., Dietrich, M. S., & Vietze, P. (1992). Antecedents of child neglect in the first two years of life. *The Journal of Pediatrics, 120(3)*, 426-429.

Brown, J., Cohen, P., Johnson, J. G., & Salzinger, S. (1998). A longitudinal analysis of risk factors for child maltreatment: Findings of a 17-year prospective study of officially recorded and self-reported child abuse and neglect. *Child Abuse & Neglect, 22(11)*, 1065-1078.

Bushnik, T. (2006). Child care in Canada. Ottawa: Statistics Canada, Catalogue no. 89-599-MIE2006003. Retrieved July 5, 2011, from http://www.statcan.ca/bsolc/english/bsolc?catno=89-599-M2006003.

Chaffin, M., Kellenher, K., & Hollenberg, J. (1996). Onset of physical abuse and neglect: Psychiatric, substance abuse, and social risk factors from prospective community data. *Child Abuse & Neglect, 20(3)*, 191-203.

Christensen, M.J., Brayden, R.M., Dietrich, M.S., McLaughlin, F. J., & Sherrod, K.B. (1994). The prospective assessment of self-concept in neglectful and physically abusive low income mothers. *Child Abuse & Neglect, 18(3)*, 225-232.

Coohey, C. (1998). Home alone and other inadequately supervised children. *Child Welfare, 77(3)*, 291-311.

Coohey, C. (1995). Neglectful mothers, their mothers, and partners: The significance of mutual aid. *Child Abuse & Neglect, 19(8),* 885-895.

Connell-Carrick, K. (2003). A critical review of the empirical literature: Identifying correlates of child neglect. *Child Abuse & Neglect, 18,* 885-895.

Courtney, E., Piliavin, I., Dworsky, A., & Zinn, A., (2005). Involvement of TANF applicant families with child welfare services. *Social service Review, 79(1),* 119-157.

DiLauro, M. D. (2004). Psychosocial factors associated with types of child maltreatment. *Child Welfare League of America, 83(1),* 69-99.

Drake, B., & Pandey, S. (1996). Understanding the relationship between neighbourhood poverty and specific types of child maltreatment. *Child Abuse & Neglect, 20(11),* 1003-1018.

Dubowitz, H. (2007). Understanding and addressing the "neglect of neglect": Digging into the molehill. *Child Abuse & Neglect, 31,* 603-606.

Dubowitz, H., Papas, M. A., Black, M. M., & Starr, Jr., R. H. (2002). Child neglect: Outcomes in high-risk urban preschoolers. *Pediatrics, 109(6),* 1100-1107.

Dubowitz, H., Black, M. M., Kerr, M. A., Starr, R. H. & Harrington, D. (2000). Fathers and child neglect. *Achieves of Pediatric Adolescence Medicine, 154,* 134-141.

English, D. J., Upadhyaya, M. P., Litrownik, A. J., Marshall, J. M., Runyan, D. K., Graham, C., et al. (2005). Maltreatment's wake: The relationship of maltreatment dimensions to child outcomes. *Child Abuse and Neglect, 29,* 597-619.

Finklehor, D. (2007). Developmental victimology: The comprehensive study of childhood victimizations. In R. C. Davis, A. J. Luirigio & S. Herman (Eds), Victim of Crime, 3 ed. (9-34). Thousand Oaks, CA: Sage Publications. Retrieved July 5, 2011, from http://www.unh.edu/ccrc/pdf/CV142L.pdf

Gough, D., & Stanley, N. (2007). Policy, practice and decision making in child neglect. *Child Abuse Review, 16,* 71-73.

Hildyard, K. L., & Wolfe, D..A. (2002). Child neglect: developmental issues and outcomes. *Child Abuse and Neglect, 26,* 679-695.

Jones, J., & Gupta, A. (1998). The context of decision-making in cases of child neglect. *Child Abuse Review, 7,* 97-110.

Jones, E. D., & McCurdy, K. (1992). The links between types of maltreatment and demographic characteristics of children. *Child Abuse & Neglect, 16,* 201-215.

Knutson, J. K., DeGarmo, D., Koeppl, G., & Reid, J. B. (2005). Care neglect, supervisory neglect, and harsh parenting in the development of children's aggression: A replication and extension. *Child Maltreatment, 10(2),* 92-107.

McCain, M.N., & Mustard, F. (1999). Reversing the brain drain: Early years study: Final report. Toronto: Ontario Children's Secretariat.

McSherry, D. (2007). Understanding and addressing the "neglect of neglect": Why are we making a mole-hill out of a mountain? *Child Abuse & Neglect, 31,* 607-614.

Nolin, P., & Ethier, L. (2007). Using neuropsychological profiles to classify neglected children with or without physical abuse. *Child Abuse & Neglect, 31,* 631-643.

Paxson, C., & Waldfogel, J.,, 2002. Work, welfare, and child maltreatment. *Journal of Labor Economics, 20 (3).*

Pears, K. C., Kim, H. K., & Fisher, P. A. (2008). Psychosocial and cognitive functioning of children with specific profiles of maltreatment. *Child Abuse & Neglect, 32,* 958-971.

Peretti, P. O., Early, K., & Chmura, J. (1998). Chronic and acute neglected children: Psychological variables. *Social Behaviour and Personality, 26(2),* 175-180.

Polonko, K. A. (2006). Exploring assumptions about child neglect in relation to the broader field of child maltreatment. *Journal of Health and Human Services Administration, 29(3),* 260-284.

Sedlak, A. & Broadhurst, D. (1996). *The third national incidence study of child abuse and neglect (NIS-3).* Washington, DC: U.S. Department of Health and Human Services.

Slack, K. S., Holl, J. L., McDaniel, M., Yoo, J., & Bolger, K. (2004). Understanding the risks of child neglect: An exploration of poverty and parenting characteristics. *Child Maltreatment, 9(4),* 395-408.

Straus, M. A., & Kantor, G. K. (2005). Definition and measurement of neglectful behaviour: some principles and guidelines. *Child Abuse & Neglect, 29,* 19-29.

Swanson, E., Meyer, M., & DePanfilis, D. (2004). Housing characteristics and adequacy of the physical care of children: An exploratory analysis. *Child Welfare League of America, 83(5),* 437-452.

Swift, K. J. (1995). An outrage to common decency: Historical perspectives on child neglect. *Child Welfare, 74(1),* 71.

Trocmé, N., Fallon, B., MacLaurin, B., Daciuk, J., Felstiner, C., Black, T., et al. (2005). *Canadian incidence study of reported child abuse and neglect-2003: Major findings.* Ottawa: Health Canada.

Wolock, I., & Horowitz, B. (1984). Child maltreatment as a social problem: The neglect of neglect. *American Journal of Orthopsychiatry, 54,* 530-543.