

**CHILD NEGLECT: PREDICTING FUTURE PROTECTION CONCERNS AND A  
COMPARISON OF PROFILES**

by

Carl Newton

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**APPROVED/APPROUVÉ**

Thesis Examiners/Examineurs de thèse:

Dr. Paul Valliant  
(Supervisor/Directeur(trice) de thèse)

Dr. Diana Uranjnik  
(Committee member/Membre du comité)

Mr. Mark Fraser  
(Committee member/Membre du comité)

Dr. Tara Black  
(External Examiner/Examineur externe)

Approved for the Faculty of Graduate Studies  
Approuvé pour la Faculté des études supérieures  
Dr. David Lesbarrères  
Monsieur David Lesbarrères  
Dean, Faculty of Graduate Studies  
Doyen, Faculté des études supérieures

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## Abstract

Research suggests that factors that influence child maltreatment are not restricted to one area (e.g. parental characteristics, child characteristics, societal characteristics), but are spread across numerous ecological systems. Child protection data from the Ontario Family and Child Strengths and Needs Assessment (FCSNA) was obtained. Records for children and caregivers of 128 families who had verified child neglect allegations were used in predictive analyses, in order to determine which families would return with further child protection concerns. Results of logistic regression analyses showed that variables related to caregiver capacity and social support were predictive of verified maltreatment concern recurrence. Caregivers with alcohol, drug, and substance abuse concerns, resource management issues, and strengths in physical health were more likely to be involved in recurrent investigations than those non-recurrent parents. Higher levels of social support from peer and adult relationships (for children) indicated a greater likelihood of child protection recurrence. Results suggest greater attention to substance abuse issues, as well as resource management and poverty in families with verified child neglect concerns. Furthermore, the results offer insight into the nature of the relationship between child maltreatment recurrence and social support. Recommendations of future research directions are discussed.

### *Keywords*

Child maltreatment, child neglect, verified protection concern recurrence, social support, caregiver capacity, child vulnerability, family functioning

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## Chapter 1: Introduction

When allegations of child maltreatment are made against a family, child protection agencies may launch investigations into the claim. If the allegations are substantiated, proper protocols are followed to ensure child safety. When these child protection concerns are addressed, the case is closed, with the family sometimes being referred to ongoing services to aid in the prevention of recidivism. However, in approximately 19% of cases, families return after child protection concerns are deemed addressed (OACAS, 2016b). The current study seeks to utilize data from initial investigations where child protection concerns were verified, in order to develop a model that can accurately predict which families are at highest risk of experiencing recurrent concerns, and which may inform the delivery of early preventative services. However, the current study seeks only to predict recurrences in cases where the initial investigations involved child neglect, a construct that has been historically nebulous due to factors such as an unclear definitions and lack of individual focus in research (Friedman & Billick, 2015).

### **Types of Maltreatment – Canadian and Ontario Comparisons**

Across Canada in 2008, 85,440 child maltreatment investigations were substantiated (Trocmé et al., 2010). The Canadian Incidence Study of Reported Child Abuse and Neglect (CIS-2008) categorizes child maltreatment into five distinct categories: physical abuse, sexual abuse, neglect, emotional maltreatment, and exposure to intimate partner violence (IPV). The number of substantiated investigations reported by CIS for 2008 and by Ontario Incidence Study of Reported Child Abuse and Neglect (OIS) for 2008 (Fallon et al., 2010) are depicted in Table 1 (see Appendix A). According to this data, child neglect makes up 34% of these substantiated investigations, indicating the importance of understanding and properly addressing the phenomenon from theoretical and applied perspectives.

## **Changes in Maltreatment Frequency in Ontario**

In 2008, there was an estimated total of 38,571 investigations into child maltreatment that were substantiated, out of 128,748 investigations (Fallon et al., 2010). For contrast, in 2013, there was an estimated total of 43,067 investigations into child maltreatment that were substantiated, out of 125,281 investigations (Fallon et al., 2015). However, while exposure to intimate partner violence, emotional maltreatment, and sexual abuse demonstrated increases in numbers of substantiated instances, physical abuse decreased. The total number of substantiated investigations into child maltreatment for 2008 and 2013 are presented in Table 2 (see Appendix A), based on maltreatment type.

Overall, based on available statistics, it is clear that child neglect remains a serious issue in Canada, particularly in the province of Ontario. While the number of substantiated neglect cases in Ontario decreased minimally from 2008 to 2013, it still remains, by a large margin, the second most common form of child maltreatment in the province. Due to the incidence of child neglect, the importance of an accurate understanding of neglect as a construct, and the efficacy of detection tools, as well as types of interventions, cannot be understated. However, there are several key issues that make child neglect a difficult to construct on which to conduct research, including the very definition itself.

### **Child Neglect: Issues with Definitions**

In order to understand the nature of child neglect, it is important to appreciate how it is defined. Child neglect has been defined in different ways in child protection research, both conceptually and operationally, leading to methodological differences and varying findings in prevalence rates and conclusions. First, the issue of treating physical, emotional, and sexual abuse, and child neglect as conceptually similar, has been questioned (Friedman & Billick,

2015). Friedman and Billick (2015) point to work by Putnam-Hornstein, Cleves, Licht, and Needell (2013) in illustration of this, with the latter authors finding that differences in fatality rates (with physical abuse having 1.7 times higher fatality rates than neglect) should necessitate that neglect should be considered conceptually different (keeping in mind that fatality rates, however, are low overall). As a result, it has been concluded that neglect should be considered child maltreatment that involves acts of omission, whereas other forms of maltreatment (i.e. physical, sexual, and emotional) should be considered child maltreatment that involves acts of commission (Putnam-Hornstein et al., 2013).

Second, the concept of neglect varies between cultures (Friedman & Billick, 2015). Korbin and Spilsbury (1999) illustrate these cultural differences by comparing common parenting practices in North America to those of other cultures; the practice of allowing an infant to sleep in a separate room from the parents, for example, would be considered neglectful in Polynesian-American-Hawaiian culture, as it is believed that it would deny proper social development. As such, it is important to consider cultural differences when defining neglect, and ensure training that increases cultural competence on those assessing levels of neglect in the household (Korbin & Spilsbury, 1999). Cultural issues are particularly important in Canadian contexts, as the issues and struggles faced by indigenous peoples extend into child protection. According to Trocmé, Knoke and Blacklock (2010), indigenous people in Canada face a variety of issues, including poverty and homes with more hazards. In a child maltreatment context, indigenous families experience children being taken out of the home at a frequency double that of Caucasian families (9.9% vs. 4.6%).

Third, operational definitions differ in research. For example, studies such as one conducted by Kaplan, Pelcovitz, and Labruna (1999) utilize the definition provided by the

National Incidence Study (NIS-3), which includes inadequacies in areas of clothing, health, supervision, and food. Studies such as the one conducted by Friedman and Billick (2015), which are observational in nature, focus on observable characteristics of neglect while operationally defining it, such as cell phone usage resulting in improper supervision, lack of proper protective gear while on a scooter, and whether or not the child is properly strapped in a stroller. While both studies offer insight into the concept of child neglect, the differences in operational definition create situations where results are incomparable.

In a meta-analysis of 13 independent samples of physical neglect ( $n = 59,406$ ), and 16 independent samples of emotional neglect ( $n = 59,655$ ), utilizing studies published between January of 1980 and January of 2008, Stoltenborgh, Bakermans-Kranenburg, and van Ijzendoorn (2013) found that procedural and methodological factors influenced prevalence rates. For example, random sampling, rather than relying on convenience samples, resulted in lower prevalence rates of physical child neglect, whereas gathering large quantities of more precise information resulted in increased prevalence rates of physical child neglect. In addition, the authors rated procedural qualities, and found that suboptimal procedural qualities affected prevalence rates – they utilized an example from one study as suboptimal, which utilized a single, subjective question to detect physical neglect, which resulted in a prevalence rate more than twice as large as others of more stringently designed studies. Finally, the authors also comment on the lack of studies that focus on child neglect in general, referring to the current depth of child neglect research as “deplorable”.

Unfortunately, the definition of child neglect is still not entirely agreed upon. Stoltenborgh and colleagues (2013) concluded in their meta-analysis that varying definitions presented difficulties in analyzing the collective of child neglect research. Legal definitions vary

as well. According to information collected by the Child Welfare Information Gateway (2016), child neglect definitions vary across states in the U.S., with some states having rather short descriptions of what child neglect is, and others having definitions of high detail. In Ontario, specifically looking at the Children's Aid Society (CAS), child neglect is referred to as Harm by Omission, and is broken down into five subtypes. These five different subtypes can then be rated on a severity scale. This definition system for Harm by Omission, along with other forms of child maltreatment, is included in the Eligibility Spectrum.

### **The Eligibility Spectrum**

In Ontario, the Children's Aid Society has a strict system known as the Eligibility Spectrum, which is used to define and measure a variety of dimensions involved in the different types of concerns (Ontario Association of Children's Aid Societies [OACAS], 2016a). The spectrum relies on a three-dimensional approach to classifying maltreatment. On the vertical axis, Reasons for Service are outlined, with each reason being given its own section, followed by specifying severity. Section 2 of the Eligibility Code describes Harm by Omission. Simply put, Harm by Omission is defined by a lack of care for the child, in areas including provision, supervision, and protection that has, or is likely to, cause harm to the child (OACAS, 2016a). On the horizontal axis are scales, which allow caseworkers to further detail the type of concern. In the case of Harm by Omission, these scales include inadequate supervision, neglect of the child's basic physical needs, and neglect in response to child's physical health, to mental and/or emotional developmental conditions, and to serious acts if the child is under the age of twelve (OACAS, 2016a). As a final and third step, the caseworker would then rate the level of severity for the selected scale. Recommended intervention cut-offs, that are scores and factors to watch out for in each situation that may need further attention, are included for each severity scale to

aid in the investigation process. The sections of the Eligibility Spectrum are presented in Table 3 (see Appendix A).

The Eligibility Spectrum provides a working definition of neglect that is suitable for research for a variety of reasons. First, it is highly detailed in what constitutes harm by omission, or neglect. Section 2 of the Spectrum has five descriptive scales, each with its own set of severity ratings classified under Extremely Severe, Moderately Severe, Minimally Severe, and Not Severe. Each rating comes with specific reasons for selecting it (totaling 21 reasons under Section 2) in order to provide concrete descriptions that fit under the definition of neglect. Furthermore, not only does the Eligibility Spectrum detail what neglect is, but it also details what it is not. For example, under Section 2, the Spectrum details that restricting basic necessities, as a form of punishment should not be coded under Harm by Omission, but under Section 1 (Physical/Sexual Harm by Commission) Scale 2 (Cruel/Inappropriate Treatment).

Second, the Eligibility Spectrum was created in tandem with Ontario Law, specifically the Child and Family Services Act (CFSA, 1990; OACAS, 2016a). The CFSA's most fundamental purpose is to protect children (CFSA, 1990). To accomplish this, the Act covers numerous subject areas, ranging from definitional information as to what constitutes a child in need of protection, to how CAS operates, to research guidelines (CFSA, 1990). The Act itself is reviewed every five years, in order to accommodate for the changes that must be made in the face of new challenges that may arise (CFSA, 1990). As such, the Eligibility Spectrum's definitions are advantageous insofar as they are consistent; simply put, the Spectrum allows for the identification and classification of child maltreatment in a way that is consistent with Ontario law.

Third, and most importantly, the use of the Eligibility Spectrum's classification definitions in research provides an immense strength with regard to "real world" applicability. Through the use of the Eligibility Spectrum in research, any results benefit from direct applicability with regard to how events and situations are managed within the world of child protection in Ontario. This is particularly useful for making comparisons with, or utilizing data collected through provincial child protection practices. With a relatively stable definition of child neglect in place, the concern then becomes how to assess the severity and risk of maltreatment – this is where actuarial and contextual risk assessment methods become important, as well as a process known as Structured Decision Making (SDM).

### **Risk Assessment**

#### **Actuarial and Contextual Risk Assessment**

One of the major issues facing child welfare agencies is the costliness of mistakes. According to Shlonsky and Wagner (2005), a mistake in an investigation can mean the difference between adequately serving the child and family, leaving the child in a situation of actual maltreatment, or unjustifiably taking the child away from his or her family. The reasons for these mistakes are numerous, and relate primarily to clinical judgement (Shlonsky & Wagner, 2005). For example, different case investigators may bring different skillsets to the table, effectively creating a difference in how they identify risks for future maltreatment. As a result of these potential issues, clinical judgement alone is an unreliable way to make life changing decisions for children and families. This is where actuarial and contextual assessment becomes important.

Actuarial assessment is defined as a type of assessment that attempts to predict a target behaviour based on empirical evidence – that is to say, the assessment is a statistical assessment

(Shlonsky & Wagner, 2005). Although there was once a great deal of controversy regarding the value of actuarial assessment over clinical judgement, this controversy has largely been settled in favour of the statistical foundations of actuarial tools (Shlonsky and Wagner, 2005). However, that is not to say that clinical judgement is entirely useless in tandem with actuarial assessment. While actuarial assessment is useful in predicting risk, this method may miss important information that is not restricted to its content, e.g. the nuances of clinical judgement or supplementary information (Shlonsky & Wagner, 2005). Meehl (1954) colourfully designated this issue as the “broken leg problem.” Essentially, Meehl (1954) argues that an actuarial assessment can attempt to predict who will win a foot race based on a variety of past statistics, and be quite accurate in doing so. However, if the predicted winner has a broken leg at the time, the prediction will immediately be deemed incorrect and useless. Essentially, Meehl (1954) is stating that clinical judgement is still a very useful and complimentary skill to rely on in addition to actuarial assessment, as only clinical judgement can take account of the broken leg. This is where contextual assessments become useful.

A contextual assessment is a type of assessment that accounts for the context in which the target behaviours exist at the ongoing phase (Bolton & Lennings, 2010). For example, the Family and Child Strengths and Needs Assessment (FCSNA) (Ministry of Children and Youth Services, 2016), which is a contextual assessment, can be used to assess the presence of substance use in the current situation, and allows for scoring the severity of the use (Bolton & Lennings, 2010). Essentially, this type of assessment guides clinical judgement in a structured way (Shlonsky & Wagner, 2005). Used in tandem with actuarial assessment, the accuracy of decision making is expected to increase, and the chances of Meehl’s (1954) “broken leg problem” becoming a reality is decreased (Shlonsky & Wagner, 2005). This combination of

actuarial and contextual assessment, or simply put, this combination of empirical methods and clinical judgement is known as structured decision making (SDM) or structured clinical judgement (Shlonsky & Wagner, 2005; Hart, 1998).

Since 2006, Children's Aid Societies in Ontario have been operating under a SDM framework. This approach is utilized by the CAS in a way that emphasizes both evidence-based assessment, and clinical assessment of the strengths and needs of families (Ministry of Children and Youth Services, 2016). The contextual tool relied upon in CAS after the investigation is the FCSNA. This assessment tool guides clinical decision making in a rather accurate fashion (Bolton & Lennings, 2010). In fact, the inter-rater reliability of the instrument is approximately 80%, demonstrated in California, which is considered good according to most standards (Wiebush, Freitag, & Baird, 2001).

### **Family and Child Strengths and Needs Assessment (FCSNA)**

The FCSNA assessment is a clinical tool used in service planning after investigations in the Child Welfare sector in Ontario (Ministry of Children and Youth Services, 2016). The tool is used to identify family strengths and weaknesses in order to inform services from which families may benefit. This assessment measure stands out from other tools in the fact that it is used only for families who are receiving ongoing protection services, meaning that family information is not collected in situations where investigations are closed. The tool is completed prior to the development of an initial service plan, which is submitted within 30 days of an initial investigation, or the date of the case transfer following the initial investigation. Every six months from the date of the first service plan, the family in question is reassessed by way of the tool in order to track progress. The FCSNA may also be completed upon the transfer of families (e.g. to

a new case worker) or case closure, where the need for a new assessment is indicated (Ontario Ministry of Children and Youth Services, 2016).

The FCSNA captures information across 11 caregiver dimensions, and nine child dimensions (Ministry of Children and Youth Services, 2016). The caregiver dimensions cover substance use concerns, family and adult relationships, parenting, mental health and coping, prior criminal history and maltreatment, social support systems, resources and basic needs, cultural considerations, physical health, and communication skills. The child dimensions covered are: emotional and behavioural health, family and peer/social relationships, physical health, development, cultural considerations, unlawful behaviour, and education. Due to the sheer amount of information that is needed to make accurate conclusions for a family on each of these dimensions, caseworkers are required to rely on a variety of skills, including their own clinical judgement, and a variety of sources of information, including extended family members, and previous record information. Despite the wide variety of possible subjectivity that can arise from using a tool that may, at times, rely on judgement, the FCSNA has demonstrated an inter-rater reliability of 80% among workers in California.

The FCSNA is an extension of the California Family Strengths and Needs Assessment (FSNA), which was validated as part of California's Structured Decision Making (SDM) approach to child maltreatment services (Wagner & Bogie, 2010). The California FSNA was created by a Children's Research Center workgroup that also included staff from regions within California under the SDM framework (Wagner & Bogie, 2010). The process involved reviewing relevant research to ensure that the assessment was based on scientific literature. This assessment, which differed very little from the Ontario FCSNA in its current form, was designed in order to aid in service plan creation when the goal was child-family reunification. During the

initial validation study, caseworkers scored eight assessments for each one of 7,000 child protection cases, with results demonstrating strong, significant relationships with child reunification, thus establishing good predictive validity for the instrument in the area of reunification (Wagner & Bogie, 2010). However, it must be noted that these validation studies took place in the United States, where child protection practices are not necessarily different to Canadian practices, thus compromising how much the findings can be generalized.

With regard to risk assessment, one of the primary goals is to prevent recurrence of child protection concerns. That is to say that when services are discontinued, and the family is deemed low risk, the success of such a decision is based on whether or not new child protection concerns, for that family arise down the road. The importance of recurrence in child protection decision making is further discussed within the broader concept of performance indicators.

### **Performance Indicators**

That some families return after child protection concerns are deemed addressed (OACAS, 2016b) emphasizes the importance of monitoring for recurrence on the part of families. The Children's Aid Society tracks several key performance indicators. There are 26 performance indicators, which are further categorized into areas of safety, permanency, and well-being (16 indicators), organizational capacity (six indicators), and effectiveness (four indicators) (OACAS, 2016b). Of these indicators, five are publically reported by OACAS, and are drawn from areas of safety (two indicators), permanency (two indicators) and well-being (one indicator). The two safety indicators include whether or not recurrences occur in families after an initial investigation is closed, and how many recurrences occur after services are provided to families. The two permanency indicators capture how long it takes a child to attain permanency, and how many days in care children spend. Last, the single well-being indicator that is reported reflects the

relationship between the caregivers and their children. While the data concerning these key performance indicators are publically reported, it should be noted that of the 47 Children Aid Societies located across Ontario, only 32 of them are able to present full results on all five indicators. This is an important consideration, as full conclusions regarding all CAS organizations in Ontario cannot be made from the publically available information.

Of particular importance to the current study are the safety performance indicators, namely, the indicator that tracks recurrences of service in families after a case is closed. This indicator tracks recurrences within 12 months of an investigation being closed.

According to most recent statistics produced by OACAS (2016b), approximately 18-19% of investigated families return to the Children's Aid Society with verified protection concerns within 12 months of a closed ongoing case, from a period spanning the fiscal years of 2010 to 2014. This suggests that approximately 81-82% of investigations that are closed after child protection concerns are deemed "addressed" do not result in the family returning with verified child protection concerns, a high number. However, when considering that the number of closed cases over these years total to 73,812 in Ontario, the statistics suggest that approximately 13,708 families returned to the Children's Aid Society with child protection concerns that had previously been deemed addressed (OACAS, 2016b). Furthermore, these numbers reflect only those cases that are reported. It is possible, due to the silent nature of child maltreatment, that the actual number of families experiencing legitimate child protection concerns after a case is closed is higher, but never detected.

With regard to recurrence, many studies have looked at the phenomenon with regard to child maltreatment as a collective of all subtypes (e.g. DePanfilis & Zuravin, 1999), and not child neglect on its own. For example, DePanfilis and Zuravin (1999) examined the recurrence of

verified child protection concerns utilizing survival analyses, but did not utilize child maltreatment as an umbrella term. The current study seeks to clarify recurrence solely with regard to child neglect. Due to the exploratory nature of this clarification, it is important to describe the potential mechanisms and risk factors associated with child neglect in general. The current study ultimately seeks to answer the question: which of these factors contribute to recurrence in child neglect?

### **Mechanisms of Child Neglect**

Numerous etiological models have been postulated over the past century as to how child neglect and child maltreatment originate and are maintained (Blumenthal, 2015). Maintenance is key as it could be posited that, if these factors that lead to increased risk of child maltreatment are not addressed, the risk of subsequent maltreatment will not decrease. These models include the parental deficit model, environmental deficit model, and the ecological model (Blumenthal, 2015). The parental deficit model posits that the reasons child neglect and maltreatment occur lie directly with the parents and their inability to parent effectively. The environmental deficit model suggests that the causes of child maltreatment lie with issues in the environment in which the family exists, such as poverty. Finally, there is the ecological model, which is a more wide-ranging model that factors in individual factors related to the parents and children involved, as well as more wide-reaching environmental factors. CAS operates from the perspective of the ecological model, which is described in more detail below.

### **Ecological Model**

One of the major shifts in child maltreatment research stemmed from Urie Bronfenbrenner's (1979) ecological theory of human development. Bronfenbrenner proposed that human development should be studied by way of an ecological perspective, rather than

focusing solely on individual variables. Put simply, Bronfenbrenner viewed the environment in which an individual lived as a major contributor to development, and broke it down into a series of systems that exist in a state of complex interplay. This series of systems was comprised of the microsystem, mesosystem, exosystem, and macrosystem.

The innermost of the nested ecological systems that Bronfenbrenner (1979) described was the microsystem. The microsystem is essentially the system that the developing individual experiences. The system is made up of interpersonal relationships, roles, and activities. For example, one of the child's microsystems could be school, where the interpersonal relationships are experienced with peers and classmates and teachers, the role of being a student, and activities include school work and play. Essentially, the important takeaway from the microsystem, according to Bronfenbrenner (1979), is that the microsystem is the system that is directly experienced by the individual in question.

With the notion of school existing as a microsystem, logically, there would be other microsystems that the individual would experience, existing with very different roles, activities and interpersonal relationships (e.g. the home of the child). Ecological transitions are made when the individual moves from one setting to another. Bronfenbrenner (1979) named this connectedness between settings in which the individual actively participates as the mesosystem. The inclusion of settings in the overall mesosystem is complex, and the criteria for a new "setting" is met in a variety of ways, for example, through even just having knowledge and attitudes towards another setting.

There are times when the individual is influenced by changes in settings that exist outside of their active settings. For example, a child and family involved with a form of child welfare service can be affected by decisions made by the government. This type of system is referred to

by Bronfenbrenner (1979) as the exosystem. The interplay between the exosystem and the individual's mesosystem is reciprocal – while the individual is not an active participant in the exosystem, their setting can both affect, and be affected by the exosystem.

Finally, within the micro-, meso-, and exosystems, there are consistencies that are dictated primarily by the culture of the ecosystem in question. This set of rules and consistencies is referred to by Bronfenbrenner (1979) as the macrosystem. From country to country, roles, activities, and interpersonal relations may differ from one another slightly, or greatly. The meanings attached to these roles, activities, and interpersonal relations by individuals may differ greatly depending on the macrosystem as well.

### **The Ecological Model in a Child Maltreatment Context**

While Bronfenbrenner (1979) formulated his ecological theory in order to explain human development, Belsky (1980) applied the theory to child maltreatment. Belsky (1980) recognized the trend of competing etiological viewpoints in child maltreatment research, and sought to integrate those competing viewpoints by drawing on Bronfenbrenner's (1979) ecological framework. Essentially, Belsky (1980) sought to demonstrate that child maltreatment was a psychosocial phenomenon that was multiply determined by factors at play on a variety of levels, including that of the individual, the family, community, and culture.

Belsky (1980) modified Bronfenbrenner's model slightly, however, in order to account for ontogenic development. Belsky (1980) drew upon the work of Tinbergen (1951) and Burgess (1978), which suggested that any behaviour should be examined from several different approaches of analysis, one of which was the ontological level. Simply put, the development of key individuals involved in child maltreatment, particularly parents, is an important factor to

consider – it is the individual differences between parents, regardless of the existing ecological setting, that are important to consider.

The Children's Aid Society relies heavily on an ecological framework when making decisions regarding child maltreatment. One of the clinical tools utilized in cases of child maltreatment to develop service plans and to monitor progress is the Family and Child Strength and Needs Assessment. This tool touches on many factors that fall into different areas of the ecology of the child in question. As mentioned, while the tool has a specifically delineated purpose, many of the factors that are measured have been utilized in past research in order to develop models that predict maltreatment and recurrence. The factors are further explored below, supplemented with evidence of their relationship(s) with child maltreatment.

### **Review of the Literature**

A number of factors have been shown to be related to child maltreatment and child maltreatment recurrence. Unfortunately, much of the research focuses on child maltreatment as an umbrella term, rather than looking at the different forms of maltreatment individually (DePanfilis & Zuravin, 1999; Widom & White, 1997). Where possible, for each of the risk factors delineated below, described research focuses on child neglect and recurrence. In areas where no such information is available, research on the initiation and maintenance of child maltreatment as an umbrella term is presented. The current study will be taking an exploratory approach, using factors that have been studied in areas of child maltreatment, and applying them to child neglect. A variety of parental, child, societal, and cultural factors are explored, many of which cover varying levels of the ecological model.

## Caregiver Capacity

For the purpose of the current study, caregiver capacity refers to the ability of a caregiver to meet the basic needs of a child. In her 1995 study, DePanfilis (1995) used a Caregiver Personal Resources construct based on previous support for caregiver risk factors that predicted child neglect recurrence. As an extension of this construct, the following risk factors are hypothesized within the current study to compromise caregiver capacity through a variety of mechanisms. The risk factors described below include alcohol, drug, and substance abuse, parenting skills, socioeconomic status and basic needs, mental health, and caregiver disability.

**Alcohol, drug and substance abuse.** The abuse of drugs and other substances has been found to play a role in child neglect, as well as other forms of child maltreatment. According to estimates put forward by Fallon and colleagues (2015), approximately 3,642 of 42,459 substantiated cases of child maltreatment involved the primary caregiver abusing drugs or solvents. Studies have examined the link between drug and substance use and child neglect alone as well. According to a study by Egami, Ford, Greenfield, and Crum (1996), the incidence of illicit drug abuse in their sample of 140 of parents who engaged in neglectful behaviour was found to be 16.4% - this is compared to illicit drug abuse in their sample of 141 child-abusing parents, which was found to 10.2%. Somewhat similarly, Chaffin, Kelleher, and Hollenberg (1996) found that individuals with substance abuse disorders were unevenly represented among their neglect (21%), abuse (15.1%), and control samples (5.7%). However, it should be noted that the numbers utilized by Chaffin and colleagues (1996) cannot be directly compared to Egami and colleagues' (1996) study, as Chaffin and colleagues' analysis utilized a definition of substance use disorder that included both drug and alcohol use.

In a two-wave study by Chaffin and colleagues (1996), it was found that substance use disorders were associated with the onset of child neglect as well. For their research, they assessed 7,103 parents at two different time points, a year apart. The findings showed that 3% of parents who exhibited substance use disorders during the first time point developed behaviours associated with child neglect during the one-year timeframe to be examined during the second wave. These results should also, according to Chaffin and colleagues (1996), be interpreted as underreported, as not all individuals in the study were actively caring for children at the time. These results demonstrated, in addition to the previous delineated studies, that substance use is not only associated with child neglect, but also is associated with the onset of child neglect.

There are several reasons put forward for this relationship. In seminal work by Bays (1990), several pathways to child maltreatment were identified, including diversion of resources to supporting drug habits, the presence of poor parenting skills, the side effects of drugs on the user, and the temperament and developmental trajectories of children who are exposed to drugs during and after pregnancy. This suggests that the mechanisms of drug abuse, and how it relates to child maltreatment are complex, and cannot simply be described as: “using drugs is the cause of child maltreatment”. It is far more likely that the drug use in an abusive fashion leads to other detrimental outcomes, as previously described, that, in turn, leads to the initiation of child maltreatment. Additional factors identified by Bays (1990) include criminal activity, poor mental health and an increased likelihood of physical illness, and family violence – all factors that have been shown to relate to increased child maltreatment.

Alcohol and substance use are also linked to child symptomatology, and as will be discussed further on, child emotional and behavioural issues are associated with child maltreatment. A study by Rangarajan (2008) points to alcoholism as a predictor of low self-

esteem in the adult children of parents with alcoholism. However, they also point out that the link between self-esteem and parental alcoholism is not inexorable, as the study also identified protective factors, particularly healthy child-parent attachment, as well as healthy communication patterns. Additionally, in a study by Kuperman, Schlosser, Lidral, and Reich (1999), it was found that the risk of children developing ADHD, conduct disorder, and generalized anxiety disorder was higher if their parents abused alcohol. As such, these results suggest that the pathway(s) between a variety of risk factors and child maltreatment are not so simple and unidirectional, but rather present themselves as a set of compounding factors that are interconnected.

Child substance abuse and alcohol use has also been associated with child neglect. In a study by Widom and White (1997), 1,190 children with a history of being neglected and abused were followed until adulthood. These findings showed that both male and female children who were abused or neglected were at greater risk of developing alcohol and substance use disorders, compared to children in control groups (Widom & White, 1997). While a causal relationship is not clearly demonstrated by this study, it is important to note the association that has been shown between child alcohol and substance use, and child maltreatment – it may be important to consider in models that assess risk.

**Parenting skills.** A lack of parenting skills is often related to unintentional child neglect, which is neglect that occurs outside of a parent or caregiver's knowledge due to poor skills in identifying dangers. In an observational study conducted by Friedman and Billick (2014), it was found that neglectful parents often engaged in behaviours that endangered their children's well-being in public, such as allowing them to ride scooters without helmets, and being inattentive while using cellphones. These authors found that an average of 28.5% of parents/caregivers

involved in 170 caregiving situations engaged in some form of neglect during this study, ranging from crossing the street with a child when the walk signal was not signaled, to not providing adequate supervision. In their conclusion, the Friedman and Billick (2014) suggested that a general lack of parenting education provided throughout adolescence, particularly in high school for all students, may be one factor that leads to unintentional neglectful behaviours, such as those observed in their study.

The connection between promoting parenting skills to minimize child maltreatment has been previously observed. Gorzka (1999) conducted a study that showed the effectiveness of a short-term parenting skills class in reducing child maltreatment potential. Nineteen families from a homeless shelter participated in this study. The findings revealed that parent skills training for one hour per week for three weeks reduced child maltreatment potential. Overall, these results suggest a negative association between parenting skills and the potential for child maltreatment.

**Socioeconomic status and basic needs.** The issue of socioeconomic status (SES) has historically been perplexing in the study of child maltreatment and child neglect. At one point, during the early period of study of child maltreatment, the notion that the phenomenon was distributed quite proportionately throughout all socioeconomic brackets was widely held (Pelton, 1978). It was Pelton (1978) that challenged this notion. While he did state in his work that child maltreatment does exist across all socioeconomic brackets, it was the widely unsupported view that the phenomenon existed proportionately that he advocated against with research. In doing so, Pelton (1978) simultaneously touted the importance of environmental stressors in the study of child maltreatment, while challenging the notion that purely parental factors, such as mental health, were the sole causal pathway to child maltreatment. In his work, he argued that the stressors associated with poverty work as instigators to child maltreatment (Pelton, 1978) –

essentially stating that environmental stress reaches a threshold for maltreatment far more quickly than in middle and upper class homes.

Of far more interest to the current study is Pelton's (1978) analysis of the relationship between neglect and poverty. During the time of his work, child neglect was two times more prevalent than child abuse, and when a child was hospitalized, the reason was 1.5 to 2 times more likely to be due to neglect than physical abuse (Pelton, 1978). He states that the reasoning for this finding is that impoverished neighbourhoods are more dangerous, and impoverished homes are more likely to consist of hazards that are harmful to children. This leads to situations where lapses in vigilant parenting in lower socioeconomic brackets potentially carry more dire consequences for children, than the same lapses would carry for children in middle and upper class socioeconomic brackets (Pelton, 1978). Additionally, Pelton (1978) speaks to the specific challenges that parents in lower socioeconomic brackets face, such as being unable to afford adequate child care for times when supervision is required but not possible.

Similar results to those of Pelton's (1978) have been found in more recent research. According to Paxson and Waldfogel (2002), there is a higher incident of child maltreatment among families below 75% of the poverty line in the United States. The incident rate begins to increase based on family structure, with it increasing if the father is absent, and the father is absent and the mother works. According to Paxson and Waldfogel (2002), this is congruent with the notion that single, working mothers are more likely to be abusive, or not be able to provide adequate care due to absence, similar to the claims made by Pelton (1978). Furthermore, the investigation by Paxson and Waldfogel (2002) suggests that child neglect is more strongly associated with poverty than are other forms of child maltreatment. Perhaps fittingly, in

reference to their results, they also found that decreases in welfare benefits were associated with increases in children being taken into foster care (Paxson & Waldfogel, 2002).

What is perhaps most dire regarding the relationship between poverty and child maltreatment is the cyclical nature they share with one another. According to a study by Zielinski (2009), it was found that adults who experienced child maltreatment as children were significantly different from adults who did not experience it across various dimensions related to socioeconomic status. These dimensions included income, employment status, and accessing Medicaid. While each subtype of child maltreatment varied in its relationship to each dimension, child neglect was found to be related to income levels below the poverty line in the United States. Nonetheless, this presents an important issue that needs attention: poverty has been observed as being a risk factor for child maltreatment, whereas child maltreatment is shown to be a risk factor for future poverty. Zielinski (2009) observes this relationship as a possible mechanism that drives the intergenerational transmission of child maltreatment.

**Mental health.** Psychiatric disorders in parents are found to be associated with child neglect. Chaffin et al. (1996) found that when compared to control parents, parents who neglected their children had a higher incidence of substance abuse, depressive, and obsessive-compulsive disorders. Out of the three disorders related to the child neglect in this study, obsessive-compulsive disorders were associated with the highest rate of child neglect onset, with 5.18% of individuals with OCD reporting the development of child neglect throughout a one-year period. Chaffin and colleagues (1996) promote caution in the interpretation of this result due to issues with the prevalence of OCD in the sample (0.86% of the sample of 7,103 parents), but nonetheless suggest that ritualistic behaviours associated with OCD could interfere with proper parenting practices, leading to neglect. Additionally, they suggest that self-doubting

behaviours characteristic of OCD could simply lead to higher rates of self-reporting of child neglect.

Depression's link to child neglect, however, is slightly more complicated (Chaffin et al., 1996). According to the same study, 2.11% of parents with depression at the start of the study developed child neglect behaviours within a year. However, the association between depression and child neglect vanished when substance use disorder was controlled for. Chaffin and colleagues (1996) suggested that depression and substance use are inextricably linked, perhaps in the way of depression being mediated by substance use, when looking at the association with neglect. However, in a study by De Bellis et al. (2005), it was found that psychiatric comorbidity of mood and anxiety disorders was a predictor of child maltreatment. They posited that the symptoms related to many anxiety and depressive disorders, such as hopelessness and anhedonia, could be associated with mother's maltreatment of children. Specifically, they posited that these symptoms could lead to acts of omission by mothers, which are defined as inaction in providing protection to their children from abuse and neglect (De Bellis et al., 2005).

**Caregiver disability.** Lightfoot and Slayter (2014) explored the overrepresentation of parents with disabilities in the child welfare system. These authors found that parents with disabilities were 2.5 times more likely to maltreat children than parents without disabilities, after controlling for income. The reasoning presented by the researchers is that many individuals with disabilities have poorer outcomes in a variety of areas, including education, graduation rates, socioeconomic status, and perhaps most telling, histories of neglect from when they were children. In fact, Lightfoot and Slayter (2014) found that 32.8% of their sample of parents with disabilities (of a total sample 2,112 parents with disabilities) had experienced some form of child neglect when they were younger. The individuals in this sample were also two times more likely

to have substance abuse issues, and were five times more likely to have mood disorders.

However, the results of this study must be interpreted with caution, as they are not causal in nature; the researchers suggest that a parental disability should not be looked at as a “cause” for child maltreatment, but simply a marker that should be given attention.

### **Child Vulnerability**

According to DePanfilis and Zuravin (1999), child vulnerability factors are complex, and may play a role in the maintenance and recurrence of child maltreatment. Essentially, the researchers reason that as child maltreatment continues, certain child characteristics may worsen (i.e. child mental health) and ultimately lead to a situation where the child is more difficult to care for, thus further increasing the likelihood of subsequent maltreatment. The current study uses a child vulnerability construct, in the sense that risk factors that predispose children to vulnerability are hypothesized to increase difficulty in the child rearing process, and thus lead to maltreatment. The risk factors included within this construct are child disabilities and child mental health issues.

**Child disability and health.** Sobsey (1994) describes a violence and disability cycle, placing emphasis on the cyclical nature between the two phenomena. The idea is that as children are abused, their risk of developing disabilities increases. When these disabilities manifest, the stress that it places on the parental bond increases the chances of further abuse. Furthermore, societal dehumanization and special education programs may foster dwindling empathy for populations with disabilities, thus further increasing violence (Sobsey, 1994). Of course, this cycle describes more than just child maltreatment; it describes violence towards the individual with a disability in general. In fact, Jones et al. (2012) support this line of thinking through research. In a meta-analytical review of sixteen studies spanning from January 1<sup>st</sup>, 1990 to

August 17<sup>th</sup>, 2010, they found that a quarter of children who have been diagnosed with a disability would experience some form of violence in their lives. Additionally, they found that the children were approximately 3-4 times more likely than non-disabled peers to be violently victimized (Jones et al., 2012).

According to Algood, Hong, Gourdine and Williams (2011), the risk of child maltreatment for children with disabilities can be due to a variety of factors. First, societal factors may be implicated, such as a lack of services for the age groups most at risk. Even if resources are available, they can often be difficult to access, which places more stress on the parents. Second, is the connection between socioeconomic status and stigma, as families with a child with a disability at the low end of the socioeconomic dimension are more often stigmatized than those of other SES categories, making community social support difficult to come by (Algood et al., 2011).

Furthermore, according to Rodriguez and Murphy (1997), the parents of children (n = 33) with developmental disabilities report higher levels of parental stress. In addition to this, they also demonstrate higher levels of child abuse potential. The results of their research demonstrated a strong correlation ( $p=0.74$ ) between both constructs, suggesting that as parental stress increases, so does child abuse potential. Interestingly, however, they found that the severity of disability did not result with increases in parenting stress. The researchers suggest this may be due to more severe and obvious disabilities that result in clearer levels of expectations from parents, whereas less severe disabilities may be more ambiguous.

**Child behavioural and emotional issues.** In a survival analysis (Kaplan Meier, and Cox Proportional Regression Model) of 446 families, DePanfilis and Zuravin (1999) found that for each point on a construct measuring child vulnerability, the hazard rate of maltreatment

recurrence increased 1.4 times. Included in this child vulnerability construct was child mental health problems. The reasoning behind the inclusion of child mental health problems is that they likely share a bi-directional relationship with child maltreatment. That is to say, behavioural issues may worsen as a result of child maltreatment, and enhanced behavioural issues make the child more difficult to care for, thus increasing the likelihood of further maltreatment (DePanfilis & Zuravin, 1999).

### **Family Functioning**

The family functioning construct in the current study includes factors that relate to the overall dynamics of the family, and interactions between family members. The factors described in detail below include family relationships, and intimate partner violence.

**Family relationships.** Family relations are complex, but nonetheless, have been associated with child neglect and maltreatment. Schnitzer and Ewigman (2008) studied 380 accidental deaths of children under the age of five years based on family composition. The findings showed that children who were living with adults to whom they were not related ( $n = 28$ ), were at risk of maltreatment or death that was six times higher than that of children living with biological parents ( $n = 213$ ). Additionally, children living with foster parents, related or not ( $n = 18$ ), had a risk of death or maltreatment two times higher than that of children living with biological parents. Interestingly, children living with a single biological parent ( $n = 92$ ) did not differ from children living with both biological parents in risk of death or maltreatment. Schnitzer and Ewigman (2008) posit that the increased likelihood of neglect and child death is likely due to improper supervision and parenting skills provided by unrelated adults when they are in charge of such duties, placing emphasis once again on the importance of parenting skills.

Regardless of family composition, a study by Williamson, Borduin and Howe (1991) demonstrated that family relationships suffer, particularly from the perspective of abused adolescents. Fifty maltreated adolescents were queried about the health of their family relationships. The measures utilized were the Family Adaptability and Cohesion Evaluation Scales (FACES-II), which is made up of Family Cohesion and Family Adaptability subscales, to measure family relations, and the Adolescent-Family Inventory of Life Events and Changes (A-FILE) to measure family stress. Results demonstrated that, from the abused adolescents' perspectives, family relationships suffered in the way of family cohesiveness. Specifically, non-maltreated adolescents reported higher scores for Family Cohesiveness subscale on the FACES-II than adolescents in maltreatment groups, regardless of maltreatment type (e.g. neglect, physical, emotional, sexual).

**Partner conflict and intimate partner violence.** The reasons put forth for the relationship between intimate partner violence (IPV) and other forms of maltreatment have varied (Knickerbocker, Heyman, Slep, Jouriles, & McDonald, 2007). For example, at what point do instances of intimate partner violence become severe enough to warrant labelling it as a maltreatment issue? How does the presence of intimate partner violence affect the decision-making processes of case investigators during investigations into allegations of child maltreatment?

The issue of causality is an important one. It has been well-demonstrated in previous research that there is a high level of co-occurrence of child maltreatment and intimate partner violence (Hartley, 2004). There are two prominent potential mechanisms that link child maltreatment and IPV. The shared risk factor hypothesis posits that the high level of co-occurrence between IPV and child maltreatment exists due to a number of risk factors that

contribute to each construct (e.g. impulsivity, hostility, genetics, and mental health disorders). As such, the presence of these risk factors would contribute to both IPV and child maltreatment, thus increasing the chances of each phenomenon occurring collectively (Knickerbocker et al., 2007).

A second hypothesis focuses more on the consequences of IPV. The spillover hypothesis posits that the negative effects of IPV, particularly on each parent, lead to poor parenting practices, and in turn, maltreatment (Knickerbocker et al., 2007). In research in which they analyzed 39 dyadic conversations between mothers and fathers, Kerig, Cowan, and Cowan (1993) found that marital conflict, not necessarily including IPV, was associated with poorer parenting practices. The results indicated that the father-daughter relationship was particularly influenced by this association, with levels of negativity towards daughters being highest among fathers with the lowest levels of marital satisfaction (Kerig et al, 1993). Kerig and colleagues (1993) point to work by Christensen and Heavey (1990) as a potential explanation, which suggests that during times of marital conflict, fathers are more likely to demonstrate behaviours indicative of withdrawal than mothers. Kerig and colleagues (1993) posit that this withdrawal behaviour can spillover on the father-daughter relationship.

The spillover hypothesis is further supported by a meta-analytical review of 39 studies spanning from 1981 to 1998, conducted by Krishnakumar and Buehler (2000). These authors explored three varying hypotheses: the spillover hypothesis, the compensatory hypothesis, and the compartmentalization hypothesis. The compensatory hypothesis posits that when marital conflict is high, parents seek to compensate by over focusing on their relationship with their children (Engfer, 1988). This leads to a bond that is overly relaxed in terms of discipline, control, and other parenting practices (Krishnakumar & Buehler, 2000). The compartmentalization

hypothesis, contrary to the spillover and compensatory hypotheses, proposes that parents are able to separate their marital conflict from their abilities as parents – which suggests that parents are able to compartmentalize conflict in their marriage while maintaining proper parenting practices (Krishnakumar & Buehler, 2000). The results of the review showed that the behaviours most influenced by parental conflict were harsh disciplinary practices (i.e. spanking, yelling, and overtly controlling behaviours) and acceptance (lack of support and emotional unavailability), thus providing support for the spillover hypothesis, but not the compensatory and compartmentalization hypotheses (Krishnakumar & Buehler, 2000).

The presence of IPV may be associated with more negative consequences. In a cross-sectional study utilizing approximately 3,600 participants, Kelleher and colleagues (2008) observed self-reported instances of child maltreatment among female caregivers who had never experienced intimate partner violence, had experienced it in the past but not in the previous 12 months, or had experienced it in the past year. The findings showed that women who experienced IPV, but not in the past twelve months, self-reported utilizing disciplinary behaviours that were psychologically aggressive, while women who experienced IPV within the previous twelve months self-reported more psychologically and physically aggressive disciplinary behaviours as well as neglect. However, Kelleher and colleagues (2008) caution that due to the cross-sectional nature of the study, directionality of their results cannot be determined.

### **Social Support and Social Integration**

The current study uses a social support and social integration construct, consisting of risk factors that relate to poor social support systems, social integration, and cultural identity. Social support systems are typically seen in research as one of the most relevant protective factors

against a variety of negative outcomes, including child maltreatment (e.g. DePanfilis & Zuravin, 1999; Maguire-Jack & Showalter, 2016).

**Social support.** There are two primary mechanisms that have been delineated and explored in order to explain the positive relationship between social support, and mental and physical health: the direct-effect model and the stress-buffering model. According to Cohen and Wills (1985), the direct-effect model posits that social support provides an overall benefit to individuals' wellbeing at all times, not just during times of high stress. Alternatively, the stress-buffering model posits that social support will only provide benefits in the form of protection against negative effects of high stress (Cohen & Wills, 1985).

Coohy (1996) conducted a study examining how social isolation plays a role in three different types of child maltreatment. With regards to child neglect, they found that a lack of emotional support that could be provided by close friends and family members was what differentiated parents who neglect and parents who do not. The reasoning for this difference is that the loneliness associated with this lack of support leads to general apathy, which extends towards the needs of the children in the family. Additionally, the lack of instrumental support associated with a lack of social cohesiveness can lead to situations in which services such as babysitting may not be available when needed, leading to an increased chance of neglect through lack of supervision.

DePanfilis and Zuravin (1999) investigated recurrences of child maltreatment during treatment by way of survival analysis (Kaplan Meier, and Cox Proportional Regression Model) with data from 446 families, using social support as one of the constructs. The authors defined this construct on a four point scale, indicating the number of issues (0 to 3) faced by the family, which included: social support offered by extended family, social support offered by neighbours

and friends, and use of informal systems of aid. The findings showed that for each deficit in the area of social support families experienced, the hazard rate for recurrence of maltreatment increased 1.4 times.

Results of a study conducted by Maguire-Jack and Showalter (2016) appear to support the direct-effect model. The study results showed that neighbourhood cohesiveness protected against less severe cases of child neglect, but not child neglect with more severe presentations. Specifically, after examining 896 sets of parents, they found that high levels of perceived neighbourhood cohesion was protective against basic needs types of child neglect (e.g. food and supervision), but not forms that involved high stress factors such as mental health issues or drug addiction. The authors concluded that neighbourhood cohesiveness may be useful for more immediate needs, but not more complex ones (Maguire-Jack & Showalter, 2016).

**Cultural influences.** In a study by Solomon and Åsberg (2012) of 120 families, it was found that having at least one minority caregiver at the time of the initial child protection concern actually reduced levels of recidivism (34% for minority caregivers vs. 59% for Caucasian caregivers). The authors noted that this result was unusual, as it would seem that the socioeconomic stressors faced by minority groups would increase levels of recidivism. However, they suggested that the findings might have to do with potentially high levels of increased social support provided by culturally-based communities. Furthermore, in a study by Johnson, Thomas, and Matre (1990), it was found that involvement with churches led to greater levels of wellbeing. They concluded that this occurred due to the social cohesiveness that came with such involvement. Relating to cultural and racial factors, the authors found that black individuals had higher levels of this form of support than did white individuals.

With regard to Canadian Indigenous populations, culture becomes a far more nebulous issue, as both enculturation and acculturation come into play (Currie, Wild, Schopflocher, Laing, & Veugelers, 2011). Enculturation refers to the degree to which the norms of one's cultural heritage are integrated into one's everyday life, whereas acculturation refers to the degree to which the norms of the mainstream culture are integrated into one's life (Currie et al., 2011). While both enculturation and acculturation have been shown to be a resiliency factor among ethnic groups, acculturation for aboriginal people in Canada becomes convoluted due to historic hardships between the aboriginal people and what has now become the mainstream culture in Canada (Currie et al., 2011). To illustrate this difference between enculturation and acculturation, Currie and colleagues (2013) conducted a study that examined illegal and prescription drug abuse among 381 Indigenous adults, utilizing the Vancouver Index to measure enculturation and acculturation, and the Drug Use Disorders Identification Test (DUDIT). What they found was that higher degrees of acculturation had no association with drug abuse, but had a stronger association with prescription drug abuse. Conversely, they found that higher levels of enculturation served as a protective factor against both illegal and prescription drug abuse - specifically, every 1-point increase in enculturation resulted in a 1.70-point decrease on the DUDIT - supporting the hypothesis that enculturation could serve as a protective factor.

Currie and colleagues (2013) suggest that the mechanism behind their findings relates to social dislocation, which they describe as a psychosocial disconnect from society. The authors posit that enculturation allows individuals who have been socially dislocated (perhaps due to assimilative practices) to socially locate. They suggest that this ability to socially locate creates protection against a variety of adversities that come with daily living. In addition to Currie and colleagues (2013) results involving prescription and illegal drug abuse, similar protective links

have been found between enculturation and alcohol use (Currie et al., 2011), stress (Spence, Wells, Graham, & George, 2016), and overall health (McIvor, Napoleon, & Dickie, 2009). While none of these studies directly examines the link between enculturation and child maltreatment, the notion of social location being protective against adversity and stress can be directly applied to many facets of child maltreatment, a construct that has been connected to both societal and parental stress.

### **Purpose of the Current Study**

Child neglect is the second most prevalent form of child maltreatment in Canada and Ontario (Fallon et al., 2015; Trocmé et al., 2010). However, despite this wide-ranging incidence, research on child neglect is limited, with definitional and procedural issues that have led to varying results and prevalence rates (Friedman & Billick, 2014; Stoltenborgh et al., 2013). The Children's Aid Society in Ontario uses the CFSA (1990) definition of child neglect, known as Harm by Omission, which is specified in the Eligibility Spectrum (OACAS, 2016a). This definition includes issues ranging from inadequate supervision, to inadequate response to a child under the age of 12 years who has committed a serious act (OACAS, 2016a).

One of the most widely-used models in the area of child maltreatment is the ecological model presented by Bronfenbrenner (1979), and adapted to child maltreatment by Belsky (1980). This model suggests that factors that give rise to, and maintain child maltreatment exist in a variety of systems, and include personal and environmental factors that operate in conjunction with one another. This is the model through which CAS operates, and one of their tools, the Family and Child Strengths and Needs Assessment (Ministry of Children and Youth Services, 2016), covers a variety of risk and protective factors for maltreatment that occur throughout the ecological systems in which the family unit exists.

The current study sought to use the FCSNA factors as predictors in models used to predict recurrence of child protection concerns after initial neglect-related concerns have been confirmed. In order to do so, this study examined the factors of the FCSNA within four constructs: caregiver capacity (including factors such as drug and substance abuse; and mental health and coping skills) (Chaffin et al., 1996; DeBellis et al., 2005), child vulnerability (such as child behavioural/emotional issues, and child disabilities) (DePanfilis & Zuravin, 1999; Jones et al., 2012), family functioning (including factors such as family and adult relationships) (Knickerbocker et al., 2007; Schnitzer & Ewigman, 2008), and social support (including factors such as adult social support, and cultural identity and integration) (Maguire-Jack & Showalter, 2016; Solomon & Åsberg, 2012).

The development of prediction models for child maltreatment is important for two reasons. First, there is the necessity of examining protection concern recurrence in cases that initially involve child neglect, a construct that has been historically neglected in the literature. Second, doing so offers insight as to which risk and protective factors that have been found to be related to child maltreatment are related to child neglect on its own. The information obtained may not only add to the literature in a historically neglected area, but may also inform better case and treatment plans for families at risk of recurrence.

### **Study Question**

The current study sought to explore the nebulous nature of child neglect. Child neglect is a construct that has been plagued by ambiguous definitions (Stoltenborgh et al., 2014). It is also included in the general umbrella term of child maltreatment, despite key differences in the nature of neglect compared to other forms of maltreatment (Friedman & Billick, 2014; Stoltenborgh et al., 2013). The FCSNA was developed from the California Family Strengths and Needs

assessment, a tool that has demonstrated predictive validity for family reunification (Wagner & Bogie, 2010). The FCSNA is used in Ontario as a contextual clinical tool in service planning (Ministry of Children and Youth Services, 2016); the research delineating risk and protective factors are covered by the elements of the FCSNA. Thus, the use of data derived from the FCSNA is relevant, and would enable an examination of predictors of maltreatment recurrence based on the literature.

Of interest in the current study were families who experienced recurrences of child protection concerns versus those who did not. The CAS' Eligibility Spectrum's definition of Harm by Omission (Section 2) was used to operationally define neglect. Independent variables were derived from the FCSNA. In order to organize the FCSNA variables into research-based constructs, four specific categories of variables were examined:

1. Caregiver Capacity
2. Child Vulnerability
3. Family Functioning
4. Social Support

As such, the question addressed in this study was: which of the variables in these constructs would predict child protection concern recurrence after an initial child neglect-related incident?

## Chapter 2: Methods

### Sample

A dataset of 15,463 investigations which took place from April 1<sup>st</sup>, 2008 to March 31<sup>st</sup>, 2014 was provided by the Sudbury and Manitoulin Branch of the Children's Aid Society for use in the current study. Of the 15,463 investigations, 2,159 were classified under Section 2 of the Eligibility Spectrum (Harm by Omission). Of the 2,159 cases, 2,005 were removed to limit the sample to first-time investigations that resulted in allegations being verified with child protection concerns. Of the remaining 154 cases, 22 did not have data from the Ontario Family and Child Strengths and Needs Assessment, and 4 did not have accessible information, bringing the total sample for the current study to 128 cases.

### Measures

**The Family and Child Strengths and Needs Assessment (FCSNA).** The FCSNA is a tool utilized by the CAS in Ontario during ongoing child welfare services, in order to identify areas of strength and weakness in families. The FCSNA covers 11 areas of interest for parents and caregivers, and nine areas of interest for the child. Each area is assessed by a descriptor which consists of four rankings (strength, adequate, weakness, severe weakness), one of which is assigned a score from 1 to 4 for each caregiver and child. The rankings are then used to calculate areas of strength that can be relied on to help the family in question, and areas of weakness that can be improved to increase family functioning.

The FCSNA can cover multiple caregivers and multiple children. The current study used information for the caregiver or parent listed as the primary caregiver, and the child who was listed as the subject of the initial referral. The psychometric properties of the FCSNA, to this

author's knowledge, are not available. However, based on the current study sample, the Cronbach's Alpha for the entire set of items on the FCSNA was 0.80.

**Dependent variable.** The dependent variable was recurrence, more specifically, Future Protection Concerns after Initial Investigation (Neglect) where Protection Concerns were Confirmed. The variable was coded dichotomously: (0) no future recurrence and (1) future recurrence. Families who had a recurrence of child protection concerns after a prior investigation resulted in previous protection concerns related to neglect were classified as having a future recurrence, whereas families who had only the single initial investigation resulting in child protection concerns involving neglect, were classified as having no recurrence.

**Independent variables.** A total of 19 independent variables (11 parent, eight child from the FCSNA) were used to predict child maltreatment recurrence. Parental variables included: (1) Alcohol, Drug or Substance Abuse; (2) Family Relationships; (3) Partner/Adult Relationships; (4) Social Support System; (5) Parenting Skills; (6) Mental Health/Coping Skills; (7) Family History of Criminal Behaviour or Child Abuse and Neglect; (8) Resource Management/Basic Needs; (9) Cultural/Community; (10) Physical Health; and (11) Communication Skills. Child variables included: (1) Emotional/Behavioural; (2) Family Relationships; (3) Medical/Physical; (4) Child Development; (5) Cultural/Community Identity; (6) Alcohol, Drug, Substance Use; (7) Peer/Adult Social Relationships; and (8) Unlawful Behaviour. The FCSNA measure of Education was not utilized in the current study.

***Alcohol, Drug, or Substance Abuse (Parent).*** The descriptor for this area assesses drug or substance abuse, relative to how it affects the caregiving ability of the parent or caregiver in question. For the purposes of this descriptor, drugs include both illegal and prescription drugs, and any substance used to alter emotional or general functioning. The four options that the

caseworker can select from to identify the strengths or weaknesses in this area include: (1) Promotes and demonstrates healthy understanding of alcohol, drugs, and substance use; (2) Alcohol or prescribed drug use; (3) Alcohol, drug, or substance abuse; (4) Chronic alcohol/drug/substance abuse.

***Family Relationships (Parent)***. The descriptor for family relationships assesses the relations between the parent or caregiver and the rest of the adults in the household. Violence between adults in the household is not assessed with this descriptor, as it is captured by the Partner/Adult Relationships measure. The level of discord between adults, the number of external and internal stressors, and number of previous incidents involving malicious reports to law enforcement are taken into account when assigning a ranking for this descriptor. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Supportive; (2) Minor/occasional discord; (3) Frequent discord; and (4) Chronic discord.

***Partner/Adult Relationships (Parent)***. The descriptor for partner/adult relationships assesses the extent of violence, coercion, threats, and control in the household between intimate partners. While the descriptor assesses violent behaviours between adults, it does not assess any violence between adults and the children in the household. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Individuals promote non-violence in the home; (2) Relationships free of threatening or assaultive behaviours among family members; (3) Physical violence/controlling behaviour; (4) Repeated and/or severe physical violence.

***Social Support System (Parent)***. This descriptor assesses the social support system available to the parent or caregiver. For the purposes of this descriptor, a social support system

consists of individuals and organizations that provide support to the family, in the form of financial aid, or services (i.e. daycare). The support of intimate partners and household members are not captured by this descriptor, as these relationships are assessed through alternate descriptors (e.g. family relationships). The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Strong support system; (2) Adequate support system; (3) Limited positive support system; and (4) No positive support system.

***Parenting Skills.*** The descriptor for parenting skills accounts for the skills and abilities of the parent or caregiver. However, it should be noted that cultural considerations are be made when assessing a parent or caregiver on this dimension. Acceptable parenting practices differ between cultures, and these differences do not reflect a difference in skillset. These differences should not be assessed as problematic, unless they are directly harmful to the child. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Strong skills; (2) Adequately parents and protects child; (3) Inadequately parents and protects child; and (4) Destructive/abusive parenting.

***Mental Health/Coping Skills (Parent).*** The descriptor for mental health of the parent assesses the extent to which any diagnosed or undiagnosed mental health issues, as well as stress, has contributed to inadequate parenting practices. For the purpose of assessing parents or caregivers, it should be noted that caseworkers must take into account how well the parent or caregiver in question copes with the effects of mental illness, and stressful situations. It is not simply a measure of overall mental health, but a measure of how overall mental health affects parenting. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Strong coping skills; (2) Adequate coping skills; (3) Mild to moderate symptoms; and (4) Chronic/severe symptoms.

***Family History of Criminal Behaviour or Child Abuse (Parent)***. This descriptor assesses the extent to which the parent and adults in the household are involved in criminal behaviour and/or child maltreatment. When assessing for this measure, past history and potential resolution of past issues are taken into account. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Promotes positive values; (2) No criminal behaviour or child maltreatment history, or successful problem resolution; (3) Active involvement; and (4) Chronic/severe involvement.

***Resource Management/Basic Needs (Parent)***. This descriptor captures the availability of financial resources to the family, as well as how those resources are successfully or unsuccessfully managed with regards to child care necessities. Resources taken into consideration when assessing a family in this area include, but are not limited to, money, housing and utilities (e.g. plumbing, heating, and electricity), clothing and cleanliness, and food and nourishment. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Resources are sufficient to meet basic needs and are adequately managed; (2) Resources are limited but are adequately managed; (3) Resources are insufficient or not well-managed; and (4) No resources or resources severely limited.

***Cultural/Community (Parent)***. This descriptor assesses the degree to which the family in question is embedded within their cultural community/social network. Somewhat similar to the Social Support descriptor, the Cultural/Community descriptor takes into account problematic situations such as isolation that may occur due to language difficulties, or large gaps in cultural beliefs and behaviours. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Strong cultural/community resources; (2) Some

cultural/community resources; (3) Limited cultural/community resources; and (4) Disconnected from cultural/community resources.

***Physical Health (Parent)***. This descriptor takes into consideration the general health of the parent in question, utilizing both formally diagnosed conditions, as well as suspected conditions. However, this is not simply an assessment of general health – the information is taken in tandem with how the health issues, if present, affect the parent or caregiver’s ability to provide adequate care for the child or children in the home. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Preventative health care is practiced; (2) Health issues do not affect family functioning; (3) Health concerns/disabilities affect family functioning; and (4) Serious health concerns/disabilities result in inability to provide care for child.

***Communication Skills (Parent)***. This descriptor assesses the ability of the parent or caregiver in question to access the resources necessary for family functioning, based on their ability to communicate. Assessing for this descriptor must account for the proper use of interpreters when necessary – communication skills may not always be present for all situations, but proper use of an interpreter eliminates the issue. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Strong skills; (2) Functional skills; (3) Limited skills; and (4) Severely limited skills.

***Emotional/Behavioural (Child)***. This descriptor assesses the behavioural and emotional functioning of the children in the household. Diagnosed and suspected conditions (i.e. depression and anxiety) are taken into consideration, as well as serious behavioural issues (i.e. consistent running away from home, fire setting, and hostile or suicidal behaviour). The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1)

Strong emotional adjustment; (2) Adequate emotional adjustment; (3) Limited emotional adjustment; and (4) Severely limited emotional adjustment.

***Family Relationships (Child)***. This descriptor assesses the level of comfort and security that the child experiences within their family. Chronic family stress, discord, and violence is taken into consideration for this descriptor, relative to how it affects the child. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Nurturing/supportive relationships; (2) Adequate relationships; (3) Strained relationships; and (4) Harmful relationships.

***Medical/Physical (Child)***. This descriptor assesses the level of health care that the child is receiving, based on need. Regular medical, dental, vision, and immunization appointments are taken into account, as is specialized care for any medical issues that may be present. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Preventative health care is practiced; (2) Medical needs met; (3) Medical needs impair functioning; and (4) Medical needs severely impair functioning.

***Child Development (Child)***. This descriptor assesses the developmental level of the child relative to the developmental norms for their age group. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Advanced development; (2) Age-appropriate development; (3) Limited development; and (4) Severely limited development.

***Cultural/Community Identity (Child)***. This descriptor assesses the level of integration the child has with his or her heritage/culture. Problematic issues are taken into account when assessing this area, such as language barriers, conflicts with culture/identity, and more. The four options that the caseworker can select from to identify the strengths or weaknesses in this area

include: (1) Strong cultural/community identity; (2) Adequate cultural/community identity; (3) Limited cultural/community identity; and (4) Disconnected from cultural/community identity.

***Alcohol, Drug, Substance Use (Child).*** This descriptor assesses the level of alcohol or drug usage on the part of the child in question. Drugs, for the purpose of this assessment, include illegal drugs, misusing prescription drugs, and using other chemicals for the purpose of intoxication. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) No alcohol, drug or substance use; (2) Experimentation/use; (3) Alcohol, drug or substance use; and (4) Chronic alcohol, drug or substance use.

***Peer/Adult Social Relationships (Child).*** This descriptor assesses the social network of the child in question. Involvement in age-appropriate social activities, with positive relationships are indicative of strengths, whereas a lack of a social network, or involvement with negative or exploitive peers is indicative of a weakness on this descriptor. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Strong social relationships; (2) Adequate social relationships; (3) Limited social relationships; and (4) Poor social skills.

***Unlawful Behaviour (Child).*** This descriptor assesses the level of delinquent or unlawful behaviour engaged in by the child, whether the behaviour has been discovered by law enforcement or not. The level of seriousness indicated is related to the level of violence involved in the offenses. The four options that the caseworker can select from to identify the strengths or weaknesses in this area include: (1) Preventative activities; (2) No unlawful behaviour; (3) Occasional unlawful behaviour; and (4) Significant unlawful behaviour.

## Procedure

**Data collection.** The FCSNA is a tool used for case planning in Child Welfare. Families are administered the FCSNA within 30 days of verified protection concerns being detected (Ministry of Children and Youth Services, 2016). The administration of this tool is extensive, as it covers twenty descriptors that require an extensive amount of information to create accurate and informed judgements. Because of this, case workers are instructed to seek information from both immediate and extended family members, case files, community leaders (i.e. Indigenous band leaders), and other related sources (Ministry of Children and Youth Services, 2016). This tool is then re-administered to families to track progress every six months (Ministry of Children and Youth Services, 2016). For the current study, only data from the first FCSNA administration was utilized. This information is then stored within family file records for future reference and use.

**Data extraction.** This study involved the secondary analysis of administrative data collected by the CAS. The records of 15,463 investigations were extracted by CAS, and included in a dataset that was provided for the current study. The investigation data derived represented information collected from April, 2008 to April, 2014. Data from before this time-frame was not extracted for use, as the data would have predated key changes in the CAS approach to child protection, which may have influenced the quality or nature of the data for the current study. The original dataset contained information on families spanning the five sections delineated by the Eligibility Spectrum (see Table 3 in Appendix B). Data was further divided by investigation findings, including allegations not being verified, allegations being verified but not serious enough to elicit child protection concerns, verified with child protection concerns, verified with the child being removed from the household, and outcome not specified. Inclusionary criteria for

the current study were cases that involved the first-time detection of verified child protection concerns (without the child being removed from the household), filed under Section 2 (Harm by Omission) on the Eligibility Spectrum. After reducing cases to these specific criteria, a total sample of 128 cases were available for analyses, from an initial total of 15,463 records.

**Ethics and permission for use.** Ethics approval for the current study was granted by Laurentian University (see Appendix B for certificate). Approval for use of the data was granted by the CAS based upon approved procedures.

### **Analyses**

Descriptive statistics were generated for the entire sample of cases for child protection concerns, and the 19 independent variables (11 parent, eight child) from the FCSNA. Frequency measures (number and percent of cases), and means with standard deviations for continuous measures, were examined. In addition to this, independent t-tests were conducted in order to observe any group differences between families who experienced recurrence and families who did not. The 19 measures were then categorized into four separate domains: Caregiver Capacity, Child Vulnerability, Family Functioning, and Social Support. The categorization was completed in a conceptual manner, dictated by the research findings delineated above.

The domains are described as follows:

**Caregiver Capacity.** The caregiver capacity categorization consisted of the following parental measures located within the FCSNA: (1) Alcohol, Drug, and Substance Abuse; (2) Resource Management; (3) Parenting Skills; (4) Mental Health Coping; and (5) Physical Health. These measures are hypothesized to relate to the caregiving capacity of the caregiver in question, thus lowering parenting effectiveness and increasing the odds of maltreatment (DePanfilis, 1995).

**Child Vulnerability.** The child vulnerability categorization was made up of the following child measures located within the FCSNA: (1) Emotional/Behavioural; (2) Medical/Physical; (3) Child Developmental; (4) Alcohol, Drug, Substance Abuse; and (5) Unlawful Behaviour. These measures are hypothesized to increase child vulnerability to child maltreatment through a difficulty in childrearing mechanism. That is to say, as a child becomes more difficult to care for, the likelihood of maltreatment increases (DePanfilis & Zuravin, 1999).

**Family Functioning.** Family functioning consisted of the following parental measures located within the FCSNA: (1) Family Relationships; (2) Family History of Crime and Abuse; (3) Adult/Partner Relationships; (4) Communication Skills. Additionally, the Child measure for Family Relationships is included in this categorization as well. It was hypothesized that these measures contribute to overall family functioning (Kerig et al., 1993; Knickerbocker et al., 2007; Williamson et al., 1992).

**Social Support and Social Integration.** Social support and integration consisted of the following parental measures located within the FCSNA: (1) Social Support; and (2) Cultural/Community. The following child measures were also included: (1) Cultural/Community; (2) Peer/Adult Relationships. The aforementioned measures have been associated with the amount and quality of social support, as well as the social integration of both parents and children (DePanfilis & Zuravin, 1999; Maguire-Jack & Showalter, 2016; Solomon & Åsberg, 2012).

The independent variables comprising the four domains were used in all analyses. For the purposes of predicting future investigations into child maltreatment, four separate logistic regression analyses were computed. The dependent variable for each analysis was *Future Protection Concerns after Initial Investigation (Neglect) where Protection Concerns were*

*Confirmed.* Odds ratios with 95% confidence intervals were calculated using SPSS<sup>®</sup> Version 25 with the binary outcome of: recurrence (1) versus non-recurrence (0).

Logistic regression was the preferred method of analysis because of the dichotomous dependent variable. Logistic regression does not adhere to assumptions of linearity like other analyses due to the nature of its dichotomous dependent variable, increasing the utility for certain datasets (Field, 2013). The overall omnibus test of each model was examined for each set of predictors ( $X^2$ ). The Wald statistic was also examined to determine the statistical significance of each independent variable in each model (Field, 2013); that is to say, the Wald coefficient aids in the identification of which predictors are making a contribution to increasing or decreasing the odds of recurrence. The Exp(B) statistics, or odds ratios, indicate how the likelihood of the dependent variable changes with each unit increase or decrease for each independent variable (Field, 2013). Measures of effect size are indicated by Nagelkerke  $R^2$  for each model (pseudo-effect size) (Field, 2013). A direct entry method was used, whereby the previously aforementioned categories of independent variables were entered as a set in a series of separate analyses.

## Chapter 3: Results

### Descriptive Statistics

Descriptive statistics for the entire sample of 15,463 investigations are presented in Table 4 (see Appendix C), separated by Eligibility Spectrum Section, and Investigation Outcome (Not Verified (NV); Verified with No Child Protection Concerns (V-NCP); Verified with Child Protection Concerns (V-CP); Verified with Child Removed (V-CR); Not Specified (NS)). One of the most important pieces of information within this table is the extent of unspecified investigation outcomes. A large number of investigation cases (2,407, or 16% of the entire dataset) had no investigation outcome specified, whereas 20% (428 cases) of investigations specific to neglect went unspecified. Of further interest are the incidence rates for child neglect (14%). According to CIS and OIS studies (Fallon et al., 2015; Trocmé et al., 2010), the incidence of child neglect is much greater than that of other forms of maltreatment, with exception of exposure to IPV. However, this can be an issue with definition and measure (Stoltenborgh, et al., 2013).

Table 5 (see Appendix C) indicates the referrals coded under Section 2 of the Eligibility Spectrum by specific subscale. Of the 2097 child neglect cases included in the dataset, 253 (15%) were verified with child protection concerns. Of those verified cases, 107 (42%) were classified as inadequate supervision, and 120 (47%) were classified as neglect of basic needs, making up the vast majority of cases with verified child protection concerns that involve neglect.

Table 6 (see Appendix C) shows the referrals made to CAS coded under Section 2 that resulted in first time verified child protection concerns by presence or lack of future protection concerns. Based on this data presented, 78 (61%) of the 128 cases experienced no future protection concerns after the initial neglect concerns, whereas 50 (39%) did experience future

concerns. As with the data presented for Table 5, the majority of cases in the recurrence and non-recurrence groups involved inadequate supervision and neglect of basic needs.

Table 7 (see Appendix C) compiles the means and standard deviations for each category of the FCSNA. The results show that the highest mean score (indicative of weakness in the described area) is in Mental/Health and Coping Skills for parents. The lowest mean score (indicative of a strength in the described area) is in Alcohol, Drug, and Substance Use for children.

Table 8 (see Appendix C) shows the means and standard deviations for each independent variable based on recurrence and non-recurrence. A total of 128 families were included in the current study, with 78 families experiencing no recurrence of child protection concerns, and 50 families experiencing recurrence of child protection concerns. Mean scores were similar scores on the Family Functioning index for each type of family. Additionally, average scores across many of the variables were reversed in directionality from expectations based on the literature. For example, all of the mean scores on the four independent variables included in the social support category are higher (suggesting a weakness in the area) for families that experienced no recurrences than for families who did experience recurrences. The reversed directionality is observed in every social support variable, however, it is not solely restricted to social support.

Further exploration with independent t-tests revealed a difference between no recurrence ( $M= 1.77$ ,  $SD= 0.82$ ) and recurrence ( $M= 2.14$ ,  $SD= 0.76$ ) average scores for the caregiver measure of Alcohol, Drug, and Substance Abuse;  $t(126)= -2.57$ ,  $p= 0.011$ . This suggests that primary caregivers within non-recurrent families had lower overall Alcohol, Drug, and Substance Abuse scores (indicative of a strength in the area) than primary caregivers within recurrent families. Second, there was a difference in no recurrence ( $M= 1.91$ ,  $SD= 0.65$ ) and

recurrence (M= 2.18, SD= 0.63) scores for Resource Management;  $t(126) = -2.32, p = 0.022$ , which suggests that non-recurrent families had lower scores in resource management (indicative of a strength in the area) than recurrent families. Third, there was a difference in no recurrence (M= 2.31, SD= 0.61) and recurrence (M= 2.08, SD= 0.60) scores for Social Support;  $t(126) = 2.07, p = 0.04$ . This suggests that non-recurrent families had higher Social Support scores (indicative of a weakness in the area) than recurrent families. Finally, children within non-recurrent families had higher Adult and Peer Social Relationship scores (indicative of a weakness) than children within recurrent families (no recurrence, M= 2.35, SD= 0.64; recurrence, M= 2.08, SD= 0.57) [ $t(126) = 2.40, p = 0.018$ ].

### **Logistic Regression Analyses**

**Caregiver Capacity.** A logistic regression analysis was conducted to predict verified recurrence of child protection concerns using the variables related to Caregiver Capacity (Alcohol, Drug, or Substance Abuse; Resource Management; Physical Health; Mental/Health Coping; and Parenting Skills) as predictors. The test of the model against a constant-only model was statistically significant, indicating that, together, the Caregiver Capacity variables predicted recurrence in families with previous child protection concerns for child neglect,  $X^2(5) = 15.039, p = 0.01$ . The model explained 15.1% of the variance (Nagelkerke  $R^2$ ), and correctly classified 70.1% of cases. The Wald test indicated that three of the five predictors entered into the model made a significant contribution to prediction: Alcohol, Drug, or Substance Abuse; Resource Management; and Physical Health (all  $p < 0.05$ ). Predictor statistics are summarized in Table 9 (see Appendix D).

The primary caregivers of recurrent families were more likely than non-recurrent parents to abuse drugs or other substances. More specifically, with every one point increase in the

FCSNA descriptor for Drugs and Substance abuse, the odds of recurrence increased approximately 1.7 times ( $b= 0.547$ ,  $SE= 0.255$ ,  $p= 0.032$ ,  $OR= 1.729$ ). Families with difficulties in resource management also were more likely to experience recurrence. With every one point increase in the FCSNA descriptor for Resource Management, the odds of recurrence increased approximately 2.2 times ( $b= 0.786$ ,  $SE= 0.367$ ,  $p= 0.032$ ,  $OR= 2.196$ ). Caregivers with difficulties in the area of physical health were less likely to experience recurrence. With every one point increase in the FCSNA descriptor for Physical Health, the odds of recurrence decreased by approximately 2.2 times ( $b= -0.788$ ,  $SE= 0.379$ ,  $p= 0.037$ ,  $OR= 0.455$ ).

**Child Vulnerability.** A logistic regression analysis was conducted to predict verified recurrence of child maltreatment with protection concerns using the variables related to Child Vulnerability (Alcohol, Drug, or Substance Abuse; Emotional/Behavioural; Medical/Physical; Child Development; and Unlawful Behaviour) as predictors. The test of the model against a constant-only model was not statistically significant, indicating that, together, the Child Vulnerability variables could not reliably predict recurrence in families with previous child protection concerns for child neglect,  $X^2(5) = 6.606$ ,  $p= 0.252$ . The Wald test indicated that none of the five predictors entered into the model made a significant contribution to prediction. Predictor statistics are summarized in Table 10 (see Appendix D).

**Family Functioning.** A logistic regression analysis was conducted to predict verified recurrence of child maltreatment with protection concerns using the variables related to Family Functioning (Family Relationships (Caregiver); Partner/Adult Relationships (Caregiver); Family History of Crime or Abuse; Communication Skills; and Family Relationships (Child)) as predictors. The test of the model against a constant-only model was not statistically significant, indicating that, together, the Family Functioning variables could not reliably predict recurrence

in families with previous child protection concerns for child neglect,  $X^2(5) = 2.160, p = 0.827$ .

The Wald test indicated that none of the five predictors entered into the model made a significant contribution to prediction. Predictor statistics are summarized in Table 11 (see Appendix D).

**Social Support and Social Integration.** A logistic regression analysis was conducted to predict verified recurrence of child maltreatment with protection concerns using the variables related to Social Support and Social Integration (Social Support System; Cultural and Community (Adult); Cultural/Community Identity (Child); and Peer/Adult Social Relationships (Child)) as predictors. The test of the model against a constant-only model was statistically significant, indicating that, together, the Social Support and Social Integration variables predicted recurrence in families with previous child protection concerns for child neglect,  $X^2(4) = 9.783, p = 0.044$ . The model explained 10.0% of the variance (Nagelkerke  $R^2$ ), and correctly classified 62.5% of cases. The Wald test indicated that only one of the four predictors entered into the model made a significant contribution to prediction: Peer/Adult Social Relationships (Child). Predictor statistics are summarized in Table 12 (see Appendix D). Children with strengths in the area of adult and peer social relationships were more likely to experience recurrence. With every one point decrease in the FCSNA descriptor for Adult/Peer Social Relationships, the odds of recurrence increased by approximately 2.1 times ( $b = -0.744, SE = 0.370, p = 0.044, OR = 0.475$ ).

## Chapter 4: Discussion

Child maltreatment is one of the most prominent issues in Canada. According to the Canadian Incidence Study on Reported Child Abuse and Neglect-2008 (CIS-2008), there were approximately 85,440 substantiated investigations of child maltreatment in Canada in 2008 (Trocmé et al., 2010). In Ontario alone, there was an estimated 43,067 cases of substantiated child maltreatment in 2013 (Fallon et al., 2015). Child neglect, which was the focus of the current study, has consistently been shown to be one of the most common forms of child maltreatment, second only to exposure to IPV in substantiated investigations (Fallon et al., 2015). However, despite this high incidence, the child neglect construct has been generally neglected in research, and has been subject to definitional issues (Stoltenborgh et al., 2013).

When investigations take place and child protection concerns are confirmed, the families involved may be referred for ongoing services in order to address the issue. If the issue, at a later date, is deemed address, the case is closed, with the belief that child protection issues are no longer present. However, in some situations, child protections concerns do arise again. This phenomenon is known as recurrence, and it takes place in approximately 19% of cases where child protection concerns are deemed addressed (Ministry of Children and Youth Services, 2016).

The current study examined the effectiveness of nineteen variables in predicting recurrences of child protection concerns, utilizing data that was collected during initial investigations of child neglect where child protection concerns were confirmed. The nineteen variables utilized in the study were drawn from the Family and Child Strengths and Needs assessment, a clinical tool typically used in Ontario to inform case planning (Ministry of Children and Youth Services, 2016).

## **Descriptive Statistics**

**Incidence.** In major studies of incidence of child maltreatment in Canada and Ontario, the incidence rate for neglect is ranges from 24% to 34% of substantiated child maltreatment investigations (Fallon et al., 2010; Fallon et al., 2015; Trocmé et al., 2010). Verified neglect in the current study was found to account for only 14% of the total sample of 15463 records. Even when evaluating investigations that verified allegations resulting in child protection concerns, or the child being removed from the home, neglect accounted for approximately 16% of the total investigations. The reason for this may be related to classification systems. In major research literature, such as in reports by the Fallon and colleagues (2015), child neglect is typically the second most prominent form of child maltreatment, exceeded only by exposure to intimate partner violence. It should be noted, however, that studies often categorize maltreatment in different ways. For example, the Ontario Incidence Study of Reported Child Abuse and Neglect-2013 (Fallon et al., 2015) uses physical abuse, sexual abuse, neglect, emotional maltreatment, and exposure to intimate partner violence categories, while Solomon and Åsberg (2012) utilize only child neglect and a combined variable of physical and sexual abuse. For the current study, neglect was the primary categorization within Section 2 of the Eligibility Spectrum, while Physical Abuse and Sexual Abuse were nested together within Section 1, much like Solomon and Åsberg's (2012) approach, but unlike the approaches of three major Canadian incidence studies (Fallon et al., 2010; Fallon et al., 2015; Trocmé et al., 2010). Furthermore, the current study includes information pertaining to cases where Child Abandonment (Section 4) and Caregiver Capacity (Section 5) were the primary categorization.

In addition to differences in classification of investigations, it must be noted that approximately 16% the 15,463 in the initial dataset did not have an investigation outcome

specified, with 20% of the 2,097 neglect investigations being unspecified. While a caveat of administrative information is a lack of control over what type of data is available for examination, the fact remains that with 16% of investigations having unspecified outcomes, the listed frequencies for the current study may not be viewed as entirely accurate. Thus, the degree of uncertainty in how those cases with missing information could have affected results may have had an influence on the observed discrepancies.

### **Characteristics of Recurrence and Non-Recurrence**

A total of 128 cases were included in the current study, with 50 of those cases being categorized as having experienced a recurrence, and 78 as not having experienced recurrence. The frequency of recurrence in the current study's sample is 39%. This is much higher than the 19% that performance indicators report (OACAS, 2016b), and this is due to the fact that the samples are not completely comparable. First, the performance indicators track families for a period of 12 months after a case closure, whereas the current study had no time restraint. It can be assumed that having a 12-month cut off for case tracking in the current study would have reduced the rate of recurrence in the sample significantly. Second, the performance indicators report recurrence for child maltreatment in general, whereas the current study focuses solely on neglect. Neglect has been shown in past research to have a generally higher rate of recurrence than other forms of maltreatment (Solomon & Åsberg, 2012).

Key differences were observed between families who experienced recurrence and those who did not. Higher scores (indicative of a weakness in the area) on variables that described alcohol, drug, and substance abuse for primary caregivers ( $p= 0.011$ ), and resource management ( $p= 0.022$ ) were reflective of families who experienced recurrences. Furthermore, higher scores on variables that described caregiver physical social support ( $p= 0.04$ ), and adult/peer social

relationships of the child ( $p= 0.018$ ) were reflective of families who did not experience recurrence.

The means of the four dependent variable categories were indicative of baseline functioning. That is to say, being near a score of 2 represents neither a weakness nor strength in the listed areas. Caregiver Capacity, a combination of the caregiver Alcohol, Drug, and Substance Abuse, Resource Management, Physical Health, Mental Health and Coping Skills, and Parenting Skills independent variables, had a mean of 2.14. Child Vulnerability, a combination of child Behavioural/Emotional Issues, Child Development, child Medical/Physical, child Alcohol, Drug, or Substance Use, and child Unlawful Behaviour independent variables had a mean of 1.99. Family Functioning, a combination of the caregiver Communication Skills, caregiver Partner/Adult Relationships, adult Family Relationships, child Family Relationships, and adult History of Criminal Behaviour/Child Abuse independent variables had a mean of 1.97. Social Support and Social Integration, a combination of the adult Social Support System, adult Cultural/Community Identity, child Cultural Identity, and child Adult/Peer Social Relationships independent variables had a mean of 2.16.

### **Prediction Models**

**Caregiver capacity.** A binary logistic regression model utilizing predictors related to caregiver capacity was found to be significant, with alcohol, drug, and substance abuse, resource management, and physical health being identified as significant predictors. Recurrent families were more likely to have difficulties in the areas of caregiver alcohol, drug, and substance abuse, as well as resource management. Conversely, recurrent families were more likely to have positive physical health. Of these three predictors, Physical Health and Resource Management made the largest contributions.

These findings are not surprising, as drug and substance abuse has been linked quite strongly with child maltreatment, and child neglect in particular (Magura & Laudet, 1996). Previous research demonstrates that drug and substance abuse issues are difficult to treat, particularly within a child maltreatment context. According to Oliveros and Kaufman (2011), only 13% of caregivers entered into treatment for drug and substance abuse as a result of child maltreatment actually follow through to completion. With 87% of caregivers not completing treatment for drug abuse and addiction, it is telling of how persisting and lasting the issue might be, resulting in further complications in parenting processes that may lead to child maltreatment.

Additionally, Wolock and Magura (1996) found that parental drug abuse did lead to re-reports to child protection agencies. What they found was that drug use created a direct path, statistically, to re-reporting. They posit that this is likely due to some form of parental characteristic that arises as a result to drug use that is both publically visible and increases the likelihood of being reported again. They also posit that increases in report rates related to drug addiction can be a result of increased monitoring that may potentially occur after an initial report that involved substance abuse. They suggest that child protection agencies increase attention for families with documented substance abuse problems.

With regard to resource management, the connection to child maltreatment was there, but the mechanisms are somewhat more complicated. Pelton (1978) was the first to dispel the notion that child maltreatment was not related to socioeconomic class. In his initial research, he suggested that impoverished neighbourhoods were more dangerous, and impoverished homes had more hazards. This means that similar lapses in parenting are likely to carry far direr consequences for impoverished families than they do for upper-class families. In addition, Slack, Holl, McDaniel, Yoo, and Bolger (2004) found that parental unemployment, material hardship

and poverty were associated with child neglect specifically. These authors suggest that in order to truly address child neglect, there is a serious need not only to address the effects of living in poverty, but to address the material needs of caregivers and families who live in poverty.

An interesting caveat to the resource management variable used in this study is related to its operational definition. The FCSNA not only takes into account availability of resources under the resource management descriptor, but also takes into account how available resources are managed. With this in mind, it is not necessarily accurate to conclude that all families with weaknesses in this area of the FCSNA live in poverty; alternately, it could suggest that families inadequately manage available resources, no matter how plentiful. According to Rosen et al. (2002), psychiatric patients with substance use disorders had a greater need for financial assistance. They concluded that when working with individuals with substance abuse disorders, it would be beneficial to include instruction and education in areas of resource management. While not every family with issues of child neglect will have drug problems, the current study and previous research show that drug abuse is a widespread contributing factor, meaning the results of Rosen and colleagues' (2002) research are far from inapplicable. As such, it might be useful to approach families with difficulties in this area with resource management skill building programs (Rosen et al., 2002).

However, physical health did present an issue with directionality. That is to say, lower levels of caregiver physical health actually predicted a lower likelihood of returning with future protection concerns. It is fully possible that caregivers with health problems identified during the initial investigation receive supports that address the issues to some extent. It is difficult to ascertain the exact link with physical health, particularly when the directionality of the results are the reverse of what would be expected, without detailed information on the health issues being

presented during investigation. For example, are the health issues temporary? Did the health issues improve during the service period?

**Child vulnerability.** There were no observed differences between recurrence group scores, nor did child vulnerability predictors succeed in forming a significant logistic regression model. These results suggest that, for the current study's sample, variables relating to child vulnerability could not predict recurrence. While this finding is not supported by the general maltreatment literature, the research is delineated below with a potential explanation.

The hypothesis driving child vulnerability factors is that as the child in question becomes more difficult to care for, the more likely child maltreatment is to occur (DePanfilis & Zuravin, 1999). However, it is plausible that this increased likelihood of child maltreatment may only apply to acts of commission, that are in part, an effort to control these difficult behaviours. In a meta-analytical study, Jones and colleagues (2012) found that approximately 25% of children with disabilities would experience violence in their lifetimes. Rodriguez and Murphy (1997) found that as parental stress increased, so did child physical abuse potential. Sobsey (1994) described a violence-disability cycle, in which violence worsened disabilities, and disabilities increased the likelihood of violence. Based on this research, it becomes more reasonable to conclude that the child vulnerability variables utilized in the current study are not associated with child neglect nearly as much as they are with other forms of child maltreatment.

**Family Functioning.** Predictors hypothesized to relate to family functioning did not produce a statistically significant logistic regression model. In addition, no differences were detected between recurrence groups across the family functioning variables. An examination of the mean values of the Family Functioning variables in Table 8 (see Appendix C) reveals that it

is quite apparent that scores across recurrence groups are very similar, being separated, at most, by 0.09 points (specifically for Communication Skills).

Previous research in the areas of intimate partner violence (Knickerbocker et al., 2007), and family relationships (Williamson et al., 1991) report strong links to child maltreatment. However, in their meta-analysis, Krishnakumar and Buehler (2000) found that partner violence resulted in more physical and emotional consequences (acts of commission), including physical disciplinary actions, and emotionally harmful activities such as screaming and overtly controlling behaviours. It is quite possible that the results of the current study support the notion that child neglect is conceptually different from other forms of child maltreatment – while risk factors associated with family functioning may have been shown to be related to child maltreatment in previous research, they may not be able to be applied to child neglect with similar results.

However, there is also the issue of maltreatment classification in the child protection sector. The Eligibility Spectrum includes five Sections relating to child maltreatment, where neglect is coded under Section 2 (Harm by Omission), and emotional harm is coded under Section 3 (Emotional Harm). Of particular importance to this discussion is that Section 3 of the Eligibility Spectrum includes child exposure to adult conflict, and child exposure to intimate partner violence. It is possible that the worst cases of family functioning breakdowns are coded under Section 3, because of its emphasis on family conflict. If this is the case, some of most negative scores for FCSNA descriptors relating to family functioning would not be coded under Section 2, but Section 3 instead, thus creating a situation where the variability in the measure is limited when solely looking at child neglect.

**Social support and social integration.** A binary logistic regression model utilizing predictors related to social support and social integration was found to be statistically significant,

with only peer/adult social relationships for the child being the strongest predictor in the model. Much like physical health in the caregiver prediction model, the results for peer/adult social relationships for the child are reversed from what would be expected, meaning that families with weaknesses in this area are less likely to have future protection concerns. This should not be interpreted as families who have poorer social support will fare better in the long term with regards to recidivism – if anything, it should be interpreted as families who have poorer social support receive services that help, which eventually helps guard against recidivism.

The idea that peer/adult social relationships is the sole significant predictor within the model makes sense, as the construct does relate to social integration. The definition of this construct within the FCSNA describes strengths as being involved in a multitude of age-appropriate social activities, whereas it describes weaknesses as having poor social skills. According to Wismer Fries and Pollak (2017), children who experience severe neglect in their earlier years demonstrate impairments in their social skills and their abilities to maintain relationships – weaknesses in this domain of the FCSNA could be indicative of a long term pattern of neglect that is difficult to break.

The hypothesis that a set of variables relating to social support and social integration would differ between families who return and families who do not was supported, with specific measures of social support systems, cultural identity and community for adults, and adult/peer relationships for children found to be statistically significant within the set. That there would be differences between these groups is supported by previous literature, as social support has been established as a powerful protective factor (Currie et al., 2011; DePanfilis & Zuravin, 1999; Spilsbury & Korbin, 2013). However, what does differ is the directionality of the results. Families who did return to CAS within the current study's sample had better social support

scores than those who did not return, which is contrary to previous research, and common sense. However, there are two potential explanations for this finding.

First, the scores that were used in the current study were collected from families after protection concerns were verified during an initial investigation into child neglect allegations. After this, a case is opened, and the issues were addressed. It is possible that families with lower social support and social integration scores were provided with more assistance in these areas, as it was more likely to be indicated as a weakness or a need on the CAS assessment. As a result, prospectively speaking, improvements on the part of families could have been made in these areas, thus reducing the likelihood of recurrence later down the road. Simply put, scores that indicated weaknesses at the time of the first investigation could have seen large improvements, whereas scores that did not at the time of the first investigation could have been secondary to other concerns. It is fully possible that similar reversals were not seen for drug and substance abuse due to the aforementioned difficulty in treating addiction issues. This possibility could be confirmed by following cases longitudinally after a file is opened for a family. The FCSNA is re-administered every six months to track progress. Observing whether or not low social support scores improve over time, may confirm this explanation. Unfortunately, this data was not available for the current study.

Second, it is possible that families who have higher levels of social support are naturally under higher levels of surveillance – being exposed to social situations, and being involved with social programs may result in higher rates of detection of child maltreatment. This is opposed to more isolated families, who may have child maltreatment concerns that go undetected simply due to lower levels of surveillance. According to Lefebvre and Allan (2012), out of all maltreatment types, child neglect had the highest number of referrals to child protection agencies

that resulted in substantiated findings made by relatives, friends, and neighbours in 2008. Approximately 21% of referrals (6077 cases) were made from these sources, compared to physical abuse (6%; 1032 cases), sexual abuse (8%; 208 cases), emotional maltreatment (14%; 1039 cases), and exposure to IPV (8%; 2340 cases). This suggests that neighbourhood surveillance may result in higher detection rates for child neglect than other forms of maltreatment, thus offering a potential explanation as to why higher levels of social support result in substantiated referrals and investigations. Again, further investigation through the use of longitudinal studies is required, in order to ascertain if, indeed, social support scores on the FCSNA increase over time in families with weaknesses in the on the measure. If the scores do not improve longitudinally, the notion of surveillance being linked with high levels of social support becomes more viable for study.

Third, the FCSNA measure for social support is completed by a caseworker based on their observations of the family's social support system. According to Spilsbury and Korbin (2013), informal social support may not always be positive. These authors explain that when social supports do not live up to expectations, it can foster disappointment and hostility (Spilsbury & Korbin, 2013). The importance of perceived social support is emphasized in direct comparison to social support. Spilsbury and Korbin (2013) present an argument that although social supports may provide supports that are conducive to reaching a positive outcome, they may be perceived as negative due to the pressures associated with it (i.e. intrusiveness). In these situations, the individuals in question may perceive low levels of social supports, despite the fact that the supports are present (Spilsbury & Korbin, 2013). Furthermore, Cooney (1996) explains that it is not necessarily a disconnection from social supports completely that may lead to issues specifically pertaining to child neglect, but the quality of the social supports. To summarize, the

current results could be related to measurement; that is to say, actual social support may not equate to positive outcomes as well as perceived social support.

### **Limitations**

**Causal relationships.** The current research is predictive in nature, and as such, the conclusions that can be drawn from it are limited. While the variables used in the analyses may be effective in predicting recurrences of child maltreatment, they should not be interpreted as roots of child maltreatment based on the current study alone. Because poor resource management has been shown to predict child maltreatment in this study, it cannot be said that increasing resource management alone will limit recurrence based solely on these results.

**Diversity.** A major limitation to the current study that cannot be ignored is the lack of cultural diversity variables included in the analyses. While the current sample included 128 families, it is difficult to ascertain what cultural background or ethnicities individuals possessed. This limitation is particularly important with regards to the intersectionality that families face with regards to child protection and coming from an indigenous background. There is a very large overrepresentation of indigenous children in the care of child protection agencies (Trocmé et al., 2010). In fact, in their analyses, they found that indigenous families often had younger caregivers living in unsafe housing, with a higher proportion of neglect cases (Trocmé et al., 2010). Furthermore, of allegations made, 74% were indicated as suspected or substantiated for indigenous families, as compared to 59% for Caucasian families (Trocmé et al., 2010). And most telling of the struggles of indigenous families involved in the child protection system: 9.9% of indigenous children were placed in out-of-home care, as compared to 4.6% of Caucasian children - slightly more than double (Trocmé et al., 2010). Indeed, it has been suggested that this removal has been exacerbated by the notion that poverty and neglect are one and the same

(Trocmé et al., 2010). As such, the lack of diversity information in the current study prevents any examination of the unique challenges faced by the indigenous community.

**Influencing factors in child protection decision making.** One of the primary issues with studies that involve large accumulations of data is variability in the administration of measures. Test bias is not new to psychological research, and is typically controlled for through meticulously standardized procedures. While the FCSN provides instructions and details as to how to complete necessary fields, there is room for professional judgement to come into play, and caseworkers would find themselves having to rely on experience in order to make proper judgements. The issue here rests in the fact that different caseworkers bring with them different experiences, personalities, and tendencies, meaning that this provides a confound that is difficult to control for.

In addition to this, periods of high stress on individual workers, and child protection agencies as a whole, may influence decision making, both advertently and inadvertently. In a 2014 CAS worker safety report (SPR Associates Inc., 2014), it was determined that violence in the workplace due to the nature of the work was a serious issue. Involving more than 5800 CAS workers, it was found that 74.7% of respondents reported experiencing violence in some form throughout their careers, with 11.6% of workers reporting that such events made them hesitant in doing their jobs to the fullest extent. This is one such example of an exosystemic variable that may influence decision-making and judgement, which goes unaccounted for by the current study. As such, the results of the present study should be examined with caution, due to variability in FSCNA completion and measurement error.

**Silent nature of child maltreatment.** As previously mentioned, the silent nature of child maltreatment is a problem. Not only does this present problems for children and society as a

whole, as well as accurate recording of child maltreatment statistics, but it is also a problem for child maltreatment research. As an example, Gilbert and colleagues (2009) suggest that approximately 1 in 30 children who are being physically abused are actually investigated by child protection agencies. This is important with regard to recidivism studies, as results suggest key differences between groups who recidivate and those who do not (DePanfilis & Zuravin, 1999; Solomon & Åsberg, 2012), but ultimately, it is likely that there are families who do recidivate, but are not reported.

**Measurement bias.** The current study relied on an administrative dataset, where data was collected from 2008 to 2014. Much of the data relating to ethnicity (Solomon & Åsberg, 2012), neighbourhoods (Maguire-Jack & Showalter, 2016), number of children in the household (DePanfilis & Zuravin, 1999), and details regarding services provided (Wiebush et al., 2001) was not available. Creating a model that explains as much of variance as possible, especially with a complex phenomenon like child maltreatment, is difficult without the inclusion of key variables. Additionally, the current study did not include the date of case closures, and had to rely on dates of initial referrals. Furthermore, the current study does not follow families with regards to periodic reviews – the FCSNA data that is utilized is for the first administration, and does not include follow up re-administrations. Because of the lack of this longitudinal aspect, it is difficult to track progress and make definite conclusions about service provisions and effectiveness. A final limitation relates to the generalization of results. While the current study focused on child neglect, the sample size utilized was 128 families, a far cry from the initial sample 15,463 – as such, generalizing these results should only be limited to families who come to CAS with first time child neglect protection concerns at one agency.

## Summary

The current study sought to compare profiles of families who return to CAS with verified protection concerns and families who do not, after an initial investigation resulted in protection concerns for child neglect. Families differed on caregiver alcohol, drug, and substance abuse, resource management, social support, and adult/peer social relationships for the child. Findings indicated that scores closer to strengths than weaknesses were indicative of families who would return to CAS with future concerns on all of these variables, with the exception of substance abuse and resource management. These findings suggest that services being provided to families after protection concerns are verified could be effective in addressing deficits in social support systems, cultural integration, and adult/peer social relationships for the child. While the results of the current study cannot be regarded as causal, it is plausible to suggest that drug and alcohol use and resource management issues are likely to increase stress levels that lead to child neglect. Additionally, the results could suggest an important need to examine the macro- and exosystemic factors at play – how are poverty and addiction maintained and judged by society, law enforcement, child protection agencies, and more?

With regard to prediction, two binary logistic regression models were statistically significant, and included predictors that were subsumed under the categories of caregiver capacity, and social support and social integration. For the caregiver capacity model, alcohol, drug, or substance abuse, resource management, and caregiver physical health were found to predict maltreatment recurrence, with resource management and physical health making the largest contributions to prediction. Of the predictors, caregiver physical health scores were reversed from what was expected, potentially meaning that this issue is supplemented with supports when a file is open when protection concerns are verified. Longitudinal research on

how services affect caregiver physical health after a case is opened would shed more light on how these scores may fluctuate with time. With regards to the predictive model for social support, adult/peer social relationships for the child was the only predictor that was statistically significant, with strengths in the area predicting greater odds of returning to CAS with protection concerns. This can be indicative of higher surveillance that may come with higher social integration, or services improving social situations – additional research is necessary to make any strong conclusions.

### **Future Directions**

With regard to implications, the results of the current study suggest that services are likely effective in areas regarding deficits in social supports. Families, however, who had more social support were more likely to return because of protection concerns – this suggests that families who do not meet thresholds for certain services and programs may actually benefit from them. Alternative explanations include higher levels of surveillance from highly cohesive neighbourhoods, resulting in more referrals when there are child protection concerns, as well as key differences between actual social support and perceived social support (Coohey, 1996). However, the fact that alcohol, drug, and substance use remains a precarious area in the current study suggests that services may be in need of improvement in the area of addiction treatment, not only in the area of child welfare, but with a much broader response from a variety of community and government sources. Additionally, families lacking in the area of resource management may need increased services to assist in the area of meeting material needs, as well as education in money management. Future research should also look at child neglect with a more complete dataset. For example, as mentioned above, inclusion of ethnicity data (Solomon & Åsberg, 2012), and specific services (Wiebush et al., 2001).

Tools utilized by the Children's Aid Society fit appropriately with the ecological perspective. What makes the ecological perspective unique in its approach is the fact that it takes into account the contribution of multiple factors from the different systems from which the phenomenon being studied arises. In order to better understand how child maltreatment persists, it is important to understand how social services, particularly child protection services, operate. Specifically, with regard to the current vein of research, the process with which caseworkers make decisions in filling out forms such as the FCSN Assessment would be worth studying, as such research would shed light on these decision making processes, and allow for better understanding of how clinical judgement affects families and children. Thus, future research should focus on the administration of the FCSNA – that is to say, the exact procedures through which case workers gather information, as well as how case worker characteristics (i.e. caseload, trauma, emotional wellbeing, etc) may affect results.

Future research would ideally improve upon the operationalization of recurrence. The current study tracked recurrence with no upper time limit, meaning that some families experienced much larger gaps between their initial protection concerns and their recurrence events. Although it is not possible to comment based solely on the current study's results, it is plausible to assume that the with larger gaps between child protection concerns, the more outside variables could have come into play to affect observed results. As such, future research should delineate how long families should be tracked after the initial child protection concerns are detected.

With regards to future research relying on the Eligibility Spectrum's definition of Harm by Omission, it may be worthwhile to examine the Spectrum's subscales. Harm by Omission consists of numerous subtypes, such as Inadequate Supervision, and Neglect of the Child's Basic

Needs. As previously discussed, treating child maltreatment as an umbrella term may be problematic (Friedman & Billick, 2014; Stoltenborgh et al., 2013). As such, it might be reasonable to assume that treating child neglect as an umbrella term that consists of potentially different forms of maltreatment such as inadequate supervision and neglect of basic needs may lead to the same issue. Furthermore, it may be interesting to examine how Section 4, Scale 1 of the Eligibility Spectrum (Orphaned/Abandoned Child) relates to child neglect as a construct. Consequently, further studies may benefit from an examination of how risk factors relate specifically the subtypes of child neglect.

Future research should also focus on longitudinal designs – tracking family progress using the FCSNA data could reveal more about how family scores change overtime across a variety of areas. Furthermore, examining the types of programs, treatment, and services received by families could explain the directionality observed in the current study for variables such as physical health. It is plausible that caregivers with physical health problems have those issues addressed to some extent when services are delivered. Finally, these longitudinal designs could offer more insight on the current study’s findings. For example, while the current results suggest that drug and substance abuse is a predictor of recurrence, a longitudinal design tracking these scores could shed light on how effectively these issues are treated over time.

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## Appendix A

## List of Chapter 1 Tables

Table 1

*Substantiated Investigations (Estimated Frequency) in Canada*

Child Maltreatment Type	Canadian Investigations (2008)	Ontario Investigations (2008)
Exposure to IPV	29,259 (34%)	15,087 (39%)
Neglect	28,939 (34%)	11,894 (31%)
Physical Abuse	17,212 (20%)	7,936 (21%)
Emotional Maltreatment	7,423 (9%)	2,884 (7%)
Sexual Abuse	2,607 (3%)	771 (2%)
Total	85,440	38,571

*Note.* Canadian numbers are extrapolated data from a sample of 6,163 substantiated investigations, whereas Ontario numbers are extrapolated from a sample of 2,308 substantiated cases. Fallon et al. (2010) and Trocmé et al. (2010).

Table 2

*Substantiated Investigations (Estimated Frequency) in Ontario for 2008 and 2013*

Child Maltreatment Type	Ontario 2008	Ontario 2013
Exposure to IPV	15,087 (39%)	20,443 (48%)
Neglect	11,894 (31%)	10,386 (24%)
Physical Abuse	7,936 (21%)	5,770 (13%)
Emotional Maltreatment	2,884 (7%)	5,620 (13%)
Sexual Abuse	771 (2%)	848 (2%)
Total	38,571	43,067

*Note.* 2008 Ontario numbers are extrapolated from a sample of 2,308 substantiated cases, whereas 2013 Ontario numbers are extrapolated from a sample of 1,837 substantiated cases. Fallon et al. (2010) and Fallon et al. (2015).

Table 3

*Eligibility Spectrum Sections for Child Maltreatment*

Section Number	Section Descriptor
Section 1	Physical/Sexual Harm by Commission
Section 2	Harm by Omission
Section 3	Emotional Harm
Section 4	Abandonment/Separation
Section 5	Caregiver Capacity

*Note.* Adapted from Ministry of Children and Youth Services (2016).

## Appendix B

## Laurentian University Research Ethics Board Approval

**APPROVAL FOR CONDUCTING RESEARCH INVOLVING HUMAN SUBJECTS**

Research Ethics Board – Laurentian University

This letter confirms that the research project identified below has successfully passed the ethics review by the Laurentian University Research Ethics Board (REB). Your ethics approval date, other milestone dates, and any special conditions for your project are indicated below.

TYPE OF APPROVAL / New / Modifications to project  / Time extension

<b>Name of Principal Investigator and school/department</b>	Carl Newton, supervisor, Paul Valliant, Psychology, co-investigators Diana Urajnik, Psychology, Mark Fraser, CAS Child & Family Centre
<b>Title of Project</b>	Unverified Reports of Child Neglect: Predicting Future Verified Instances of Neglect and a Comparison of Behavioural Profiles
<b>REB file number</b>	6009797
<b>Date of original approval of project</b>	April 6, 2017
<b>Date of approval of project modifications or extension (if applicable)</b>	Sept 7 <sup>th</sup> , 2017
<b>Final/Interim report due on:</b> (You may request an extension)	April 6, 2018
<b>Conditions placed on project</b>	Approval by CAS-received

During the course of your research, no deviations from, or changes to, the protocol, recruitment or consent forms may be initiated without prior written approval from the REB. If you wish to modify your research project, please refer to the Research Ethics website to complete the appropriate REB form.

All projects must submit a report to REB at least once per year. If involvement with human participants continues for longer than one year (e.g. you have not completed the objectives of the study and have not yet terminated contact with the participants, except for feedback of final results to participants), you must request an extension using the appropriate LU REB form. In all cases, please ensure that your research complies with Tri-Council Policy Statement (TCPS). Also please quote your REB file number on all future correspondence with the REB office.

Congratulations and best wishes in conducting your research.

Rosanna Langer, PHD, Chair, Laurentian University Research Ethics Board

## Appendix C

## List of Descriptive Statistics Tables

Table 4

*Characteristics and Frequencies of the CAS Sample – Eligibility Section and Investigation Outcome (n= 15463)*

Section	Cases	NV	V-NCP	V-CP	V-CR	NS
Physical/Sexual	3385 (22%)	1620 (48%)	762 (23%)	411 (12%)	32 (1%)	560 (17%)
Neglect	2097 (14%)	864 (41%)	525 (25%)	253 (12%)	27 (1%)	428 (20%)
Emotional	3159 (20%)	580 (18%)	1371 (43%)	608 (19%)	16 (1%)	519 (16%)
Abandonment	899 (6%)	167 (19%)	235 (26%)	248 (28%)	54 (6%)	195 (22%)
Caregiver Capacity	5923 (38%)	1363 (23%)	791 (13%)	730 (12%)	48 (1%)	705 (12%)
Total	15463	4594 (30%)	3684 (24%)	2250 (15%)	177 (1%)	2407 (16%)

Table 5

*Frequencies of the CAS Sample – Section 2 Subscales by Investigation Outcome (n= 2097)*

Section	Cases	NV	V-NCP	V-CP	V-CR	NS
Inadequate Supervision	986 (47%)	359 (36%)	278 (28%)	107 (11%)	13 (1%)	229 (23%)
Neglect of Basic Needs	852 (41%)	398 (47%)	178 (21%)	120 (14%)	11 (1%)	145 (17%)
Response to Phys. Health	129 (6%)	45 (35%)	41 (32%)	10 (1%)	3 (>1%)	30 (23%)
Response to Mental Health	118 (6%)	55 (47%)	24 (20%)	16 (14%)	0 (0%)	23 (19%)
Response to Serious Act	12 (1%)	7 (58%)	4 (33%)	0 (0%)	0 (0%)	1 (8%)
Total	2097	864 (36%)	525 (31%)	253 (15%)	27 (1%)	428 (17%)

Table 6

*Frequencies of the CAS Samples – Families coded under Section 2 of the Eligibility Spectrum with First Time Protection Concerns by Presence or Lack of Future Concerns (n= 128)*

Section	Cases	Families with no future concerns	Families with future concerns
Inadequate Supervision	44 (47%)	23 (52%)	21 (48%)
Neglect of Basic Needs	65 (41%)	42 (64%)	23 (36%)
Response to Phys. Health	7 (6%)	6 (86%)	1 (14%)
Response to Mental Health	12 (6%)	7 (58%)	5 (42%)
Response to Serious Act	0 (0%)	0 (0%)	0 (0%)
Total	128	78 (61%)	50 (39%)

Table 7

*Independent Variable Means (M) and Standard Deviations (SD)*

Variable	N	M	SD
<b>Caregiver Capacity</b>			
Alcohol, Drug, Substance Abuse (Parent)	128	1.91	0.814
Parenting Skills	128	2.32	0.614
Mental Health/Coping Skills	127	2.39	0.614
Physical Health	128	2.05	0.559
Resource Management/Basic Needs	128	2.02	0.652
<b>Child Vulnerability</b>			
Emotional/Behavioural (Child)	128	2.20	0.593
Medical/Physical (Child)	127	2.01	0.611
Child Development (Child)	128	2.27	0.540
Alcohol, Drug, Substance Use (Child)	128	1.45	0.650
Unlawful Behaviour (Child)	128	1.99	0.525
<b>Family Functioning</b>			
Family Relationships	128	1.95	0.626
Partner/Adult Relationships	128	1.98	0.561
Family History of Criminal Behaviour or Child Abuse	128	2.02	0.517
Communication Skills	128	1.91	0.562
Family Relationships (Child)	127	2.02	0.541
<b>Social Support</b>			
Social Support System	128	2.22	0.614
Cultural/Community (Parent)	128	2.07	0.564
Cultural/Community Identity (Child)	128	2.12	0.570
Peer/Adult Social Relationships (Child)	128	2.24	0.624

Table 8

*Means and Standard Deviations of Independent Variables based on Presence of Recurrence*

Category and Variable	N	No Future Protection Concerns		Future Protection Concerns		
		Mean	SD	N	Mean	SD
Caregiver Capacity	77	2.09	0.43	50	2.21	0.37
Alcohol, Drug, or Substance Abuse	77	1.78	0.82	50	2.14	0.76
Resource Management	77	1.91	0.65	50	2.18	0.63
Physical Health	77	2.10	0.60	50	1.96	0.49
Mental Health/Coping Skills	77	2.39	0.61	50	2.38	0.57
Parenting Skills	77	2.27	0.62	50	2.38	0.60
Child Vulnerability	78	2.03	0.34	49	1.91	0.37
Emotional/Behavioural (Child)	78	2.28	0.64	49	2.08	0.49
Medical/Physical (Child)	78	2.08	0.64	49	1.90	0.55
Child Development	78	2.32	0.55	49	2.18	0.53
Alcohol, Drug, or Substance Use	78	1.45	0.62	49	1.47	0.71
Unlawful Behaviour	78	2.03	0.48	49	1.94	0.59
Family Functioning	77	1.97	0.34	50	1.98	0.35
Family Relationships (Parent)	77	1.95	0.63	50	1.96	0.64
Partner/Adult Relationships	77	1.95	0.56	50	2.02	0.55
History of Criminal/Abuse	77	2.01	0.47	50	2.00	0.57
Communication Skills (Parent)	77	1.87	0.59	50	1.96	0.49
Family Relationships (Child)	77	2.05	0.54	50	1.98	0.55
Social Support	78	2.24	0.42	50	2.04	0.38
Social Support	78	2.31	0.61	50	2.08	0.60
Cultural Identity (Parent)	78	2.14	0.57	50	1.96	0.53
Cultural Identity (Child)	78	2.17	0.61	50	2.04	0.49
Adult/Peer Social (Child)	78	2.35	0.64	50	2.08	0.57

## Appendix D

## List of Logistic Regression Tables

Table 9

*Logistic Regression Analysis – Caregiver Capacity*

Variable	B	S.E.	Wald	<i>p</i>	Exp(B)
Alcohol, Drug, or Substance Abuse	0.547	0.255	4.623	0.032	1.729
Parenting Skills	-0.30	0.352	0.007	0.931	0.970
Mental Health/Coping	-3.19	0.361	0.780	0.377	0.727
Resource Management	0.786	0.367	4.595	0.032	2.196
Physical Health	-0.788	0.379	4.329	0.037	0.455
Constant	-0.676	1.107	0.373	0.542	0.509

Table 10

*Logistic Regression Analysis – Child Vulnerability*

Variable	B	S.E.	Wald	<i>p</i>	Exp(B)
Emotional/Behavioural	-0.475	0.369	1.661	0.197	0.622
Medical/Physical	-0.368	0.334	1.218	0.270	0.692
Child Development	-0.320	0.386	0.686	0.408	0.726
Alcohol, Drug, Substance Use	0.254	0.340	0.559	0.455	1.289
Unlawful Behaviour	-0.194	0.458	0.179	0.672	0.824
Constant	2.034	1.186	2.942	0.086	7.646

Table 11

*Logistic Regression Analysis – Family Relationships*

Variable	B	S.E.	Wald	<i>p</i>	Exp(B)
Family Relationships (Caregiver)	0.011	0.333	0.001	0.973	1.011
Partner/Adult Relationships	0.304	0.402	0.570	0.450	1.355
Family History of Crime/Abuse	-0.172	0.401	0.185	0.667	0.842
Communication Skills	0.268	0.344	0.608	0.436	1.307
Family Relationships (Child)	-0.333	0.380	0.768	0.381	0.717
Constant	-0.553	1.119	0.244	0.621	0.575

Table 12

*Logistic Regression Analysis – Social Support and Social Integration*

Variable	B	S.E.	Wald	<i>P</i>	Exp(B)
Social Support System	-0.432	0.348	1.544	0.214	0.649
Cultural/Community (Caregiver)	-0.383	0.403	0.901	0.342	0.682
Cultural/Community (Child)	0.243	0.427	0.324	0.569	1.275
Peer/Adult Social Relationships (Child)	-0.744	0.370	4.045	0.044	0.475
Constant	2.425	1.072	5.114	0.024	11.302