The Intersection of Child Maltreatment and Behaviour Problems: Implications for Child Welfare Service Providers

by

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Abstract

Evidence suggests that child maltreatment is associated with externalizing, antisocial, and criminal behaviour, although the mechanisms explaining this association remain poorly understood. The purpose of this thesis research is twofold: to deepen current understanding of the relationship between maltreatment and behaviour problems, and to understand the potential intervening role of child welfare services in influencing this relationship. With few Canadian studies in this area, an aim of this research is to provide a foundation from which future research can expand.

Three academic papers comprise this research. The first paper entails a comprehensive analysis and application of relevant theories to understanding the association between maltreatment and
behaviour problems. The second paper utilizes data from the Ontario Incidence Study of Reported Child Abuse and Neglect (OIS-2013) to examine whether dimensions of maltreatment and cumulative risk explain why certain maltreated young people exhibit behaviour problems and others do not. The third paper uses OIS-2013 data to provide a snapshot of the child welfare services delivered to maltreated children and youth who exhibit aggressive and/or criminal behaviour.

The findings indicate that the relationship between maltreatment and behaviour problems is complex and dependent on processes at every level of children’s ecologies. Aggressive children were more likely to experience severe and co-occurring forms of maltreatment and to experience higher levels of cumulative child risks. In adolescence, youth exhibiting aggressive or criminal behaviour commonly experienced abandonment, a form of neglect in which caregivers are not willing or able to remain a caregiver. While aggression in younger children was not associated with an increased likelihood of receiving child welfare services, maltreated adolescents displaying aggressive behaviour were significantly more likely to be placed in out-of-home care, often in restrictive settings. These findings are discussed with respect to their implications for child welfare practitioners, policy makers, administrators, researchers, and educators.
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Chapter 1: Introduction

1.1 Introduction

The negative and potentially long-term consequences of child maltreatment have been studied for decades. During this time, there has been a keen interest in examining the relationship between maltreatment and externalizing, antisocial, and criminal behaviour, which includes aggression and violence. While it has been established that a relationship exists between maltreatment and these behaviour problems (e.g., Allwood & Widom, 2013; Lemmon, 2006), causality is challenging to determine, and researchers are only beginning to understand the mechanisms and context that explain this relationship, as well as its direction. Child and adolescent behaviour problems may contribute to and/or result from maltreatment, a bidirectional relationship may exist, or alternatively, both maltreatment and behaviour problems may represent outcomes of common causal factors. Complex contextual factors may explain why some maltreated children develop these behaviour problems whereas others do not, and why some children with behaviour problems experience maltreatment while others grow up in the absence of abuse and neglect.

Child welfare service provision, among other factors, can impact the relationship between maltreatment and externalizing, antisocial, and criminal behaviour problems. Child welfare agencies play a key role in assessing potential child maltreatment, preventing future abuse and neglect, and promoting the health, well-being, education, and safety of children and youth (OACAS, 2010). Research findings on outcomes following child welfare intervention are mixed, however, with some studies suggesting an association between child welfare services such as out-of-home placement and an increased risk of behaviour problems such as criminality among...
maltreated young people (e.g., Cusick, Courtney, Havlick, & Hess, 2010; Derzon, 2010; Doyle, 2008; Jonson-Reid, 2002). While it is difficult to untangle the effects of child welfare services from the effects of other factors, the potential for these services to cause harm necessitates a careful examination of what types of interventions are provided to which children and families, and the associated outcomes.

The purpose of this thesis research is to increase current understandings of the relationship between maltreatment and behaviour problems, and the potential intervening role of child welfare services in influencing this relationship. This thesis research is guided by three key objectives: (1) review and integrate relevant theoretical perspectives on the relationship between maltreatment and externalizing, antisocial, and criminal behaviour problems, and the impact of child welfare service delivery on this relationship; (2) determine the extent to which maltreated children and youth demonstrate behaviour problems, and identify factors that distinguish maltreated young people with behaviour problems from those without these problems; and (3) identify the types of services provided to maltreated young people with behaviour problems following contact with the child welfare system. Chapters 2, 3, and 4 address these objectives and are written as three distinct papers for submission to peer-reviewed journals.

This introductory chapter begins with a detailed discussion of the definition of child maltreatment, and an exploration of its causes, consequences, and various expressions. The developmental origins of externalizing, antisocial, and criminal behaviour problems are also discussed, along with an overview of their numerous manifestations. A description of child welfare services is then provided, including a historical account of the development of these services as well as a summary of the interventions offered to children and families. This introductory chapter also presents a synthesis of research on the relationship between maltreatment and behaviour problems, and the intervening role of child welfare services. Following this chapter, a comprehensive review and synthesis of relevant theories is presented in Chapter 2. Theory is rarely applied in the current body of research literature. Without a comprehensive theoretical basis, it can be difficult to identify effective prevention and intervention strategies, and to determine directions for future research.
In Chapter 3, the relationship between maltreatment and behaviour problems is further explored by examining data from the latest cycle of the Ontario Incidence Study of Reported Child Abuse and Neglect (OIS-2013), a large representative study of child welfare investigations conducted in Ontario, Canada. While a vast body of literature on the association between maltreatment and behaviour problems exists, few studies have been conducted in the Canadian context. The scant research that has been conducted in Canada points to patterns of results that differ slightly from studies conducted in other jurisdictions (e.g., Derzon, 2010; Ellenbogen, Trocmé, & Wekerle, 2013). Examining OIS-2013 data provides an opportunity to understand the extent to which maltreated children and youth in Canada demonstrate aggressive and criminal behaviours as well as the contextual factors that explain why some maltreated children display these problematic behaviours and others do not.

Further analyses of OIS-2013 data are presented in Chapter 4. These analyses focus on determining how child welfare service providers respond to maltreated children and youth with behaviour problems. While child welfare responses and interventions are consequential for young people with behaviour problems, few studies examine the specific services provided to children and youth who have experienced maltreatment and exhibit externalizing, antisocial, and criminal behaviours. The fifth and final chapter presents an overview of the main findings, and a discussion of the implications for social work research, practice, policy, and education.
1.2 Background

1.2.1 Child Maltreatment

Child maltreatment is a multifaceted, complex, and heterogeneous phenomenon that is broadly defined as any act of *commission* or *omission* by a parent or other caregiver that results in *actual* harm to a child, a *threat* of harm to a child, or the *potential* for harm to a child (Briggs et al., 2011; Jack, Munn, & Cheng, 2006; Leeb, Paulozzi, Melanson, Simon, & Arias, 2008; Runyan, Wattam, Ikeda, Hassan, & Ramiro, 2002; Scannapieco & Connell-Carrick, 2005). Whereas acts of *commission* tend to be overt, deliberate, and intentional, acts of *omission* involve situations in which a child’s basic needs are not met or a child is not protected from harm because of the absence of action (Leeb et al., 2008). In both cases, the perpetrator of maltreatment may not intend to cause harm to the child, even though acts of commission involve an intentional action (Leeb et al., 2008). Harm includes any disruption to a child’s physical, cognitive, or emotional development, which can occur immediately following the maltreatment or with a delayed onset (Leeb et al., 2008). Examples of harm include physical injuries (e.g., bruises, broken bones), avoidable illnesses (e.g., sexually transmitted infections, failure to thrive), inadequate nutrition, disruptions to social functioning, impaired relationships, academic difficulties, and mental health issues (e.g., anxiety, depression, posttraumatic stress, substance use, conduct disorder) (Fallon et al., 2015; Leeb et al., 2008; Manly, 2005; Runyan et al., 2002).

Achieving consensus on the definition of child maltreatment has proved challenging, with researchers struggling to finding operational definitions of this very heterogeneous construct (Manly, 2005). Variability in definitions also exists across social service systems, with legal definitions of abuse and neglect varying depending on jurisdiction (Cicchetti & Toth, 2005). The difficulty in defining maltreatment likely arises in part from the challenges of determining the boundaries of adequate parenting or caregiving. Definitions of normal caregiving and child
maltreatment are influenced by a variety of factors, including the social context, community standards, and cultural norms and attitudes (Cicchetti & Toth, 2005; Craig, 1992; D’Cruz, 2004; Raman & Hodes, 2012; Runyan et al., 2002). While certain extreme situations are more easily identified as maltreatment, determining a threshold that distinguishes maltreating caregiving from non-maltreating caregiving can prove difficult (Proctor & Dubowitz, 2014).

Generally, the maltreatment literature has operationalized four categories of child maltreatment, including physical abuse (i.e., infliction of physical injury on a child, often as punishment or discipline), sexual abuse (i.e., actual or attempted sexual contact by an adult toward a child), neglect (i.e., failure to provide minimum care and lack of supervision), and emotional maltreatment (i.e., chronic mistreatment of a child’s basic emotional needs) (Barnett, Manly, & Cicchetti, 1993; Berger & Waldfoleg, 2011). More recently, exposure to domestic violence or intimate partner violence has been identified as a form of maltreatment by some researchers and child welfare systems (Black, Trocmé, Fallon, & MacLaurin, 2008; Hornor, 2011; Morelen & Shaffer, 2012).

Category or subtype of maltreatment is only one of the many dimensions that characterize children’s experiences of abuse and neglect. Types of maltreatment can co-occur simultaneously, and a child can experience different forms of maltreatment over time (English et al., 2005). Maltreatment experiences also vary in terms of age at onset, the number of development periods in which the incidents occur, and the impact on the accomplishment of developmental tasks (Cicchetti & Toth, 2005). Severity is another important dimension of maltreatment reflecting the amount of risk or harm caused by the actions of the perpetrator (Manly, 2005). Importantly, these dimensions are highly complex, interrelated components of children’s experiences that likely influence the developmental outcomes that follow child maltreatment (Manly, 2005).

There is general consensus that maltreatment is not an outcome of any single factor, but rather the result of multiple, complex, dynamic risk factors that originate within or outside of the family (Cicchetti & Toth, 2005; Scannapieco & Connell-Carrick, 2005). Children and adolescents who experience maltreatment are not a homogenous group, but rather are diverse in their individual characteristics, their families’ strengths and needs, and the communities in which they live.
(Scannapieco & Connell-Carrick, 2005). The consequences of maltreatment are as diverse as the causes. Externalizing, antisocial, and criminal behaviour problems are not the only child difficulties associated with maltreatment. Maltreated children and youth are also at risk of a range of other problems, including internalizing difficulties such as depression, anxiety, disrupted sleep patterns, eating disorders, and suicidal thoughts and behaviours (English, 1998; Nanni, Uher, & Danese, 2012), which can occur in isolation or co-occur with the behaviour problems examined in this thesis (Farand, Chagnon, Renaud, & Rivard, 2004; Gover, 2004). While this thesis research focuses primarily on externalizing, antisocial, and criminal behaviour problems, understanding the association between maltreatment and internalizing as well as other problems is critical and warrants careful examination.

Although child maltreatment is associated with a range of behavioural, mental health, and developmental challenges, certain children who experience abuse and neglect are resilient, achieving normative developmental outcomes (Afifi & MacMillan, 2011). Resilience is defined as the processes that promote positive adaptation, particularly among children and families who experience adversity (Masten & Monn, 2015). Multi-determined by factors at the individual, family, community, and structural levels, resilience does not originate solely from within a child but rather is a complex process that demands attention to every level of the ecological system (Cicchetti, 2010). A focus on resilience highlights the diversity of developmental pathways; the absence of an environment that provides opportunities for normal development does not necessarily lead to abnormal developmental outcomes, and conversely the presence of a positive environment does not guarantee a child will successfully attain developmental milestones (Cicchetti, 2002; Tabone et al., 2011).

A developmental perspective underscores that the causes, consequences, and characteristics of maltreatment vary depending on the age of the child or adolescent as well as various other contextual factors (Gilbert et al., 2009; Scannapieco & Connell-Carrick, 2005). Infants and young children are generally considered more vulnerable to abuse and neglect, given the extent to which they rely on caregivers to meet basic survival needs (Garbarino & Kelly, 1986; Scannapieco & Connell-Carrick, 2005). Importantly, however, maltreatment that begins in adolescence or continues throughout childhood and adolescence can inflict serious harm on
young people and is associated with negative outcomes including substance abuse, risky sexual behaviours, depression, and involvement in violent crime (Thornberry, Henry, Ireland, & Smith, 2010). These outcomes are serious and go beyond the typical or normative issues that arise during adolescence (Garbarino & Kelly, 1986). Across all stages of development, the social, biological, and psychological conditions associated with maltreatment can disrupt stage-salient developmental tasks, resulting in serious consequences for functioning across the life course (Cicchetti & Lynch, 1995; Cicchetti & Toth, 2005).

1.2.2 Behaviour Problems

Within this thesis research, a spectrum of related behaviour problems is examined, including externalizing behaviour (e.g., non-compliance, aggression, hyperactivity, rule-breaking), antisocial behaviour (e.g., fighting, conduct disorder, oppositional defiance disorder), and delinquency or criminality (e.g., theft, vandalism, assault). Violent criminal behaviour in adolescence and adulthood is viewed as the most severe behaviour problem on this spectrum. Violent crime constitutes a major societal issue; an issue that arouses strong emotions and grave concerns among the public, politicians, and policy makers alike, and has significant costs for victims, offenders, and society (Junger, Feder, Côté, & Tremblay, 2009). In order to prevent violent crime among young people and adults, it is imperative, beginning during the prenatal period, to consider the entire lifespan (Biglan, Brennan, Foster, & Holder, 2004). While most studies on youth crime have focused on adolescence, understanding how to prevent serious, violent, and chronic offending in later life necessitates an exploration of the early origins of this behaviour (Loeber & Farrington, 2001; Offord, Lipman, & Duku, 2001).

Children with early behaviour problems are at risk of later behavioural issues (Rogosch, Oshri, & Cicchetti, 2010). For some young people, minor forms of externalizing and antisocial behaviour appear in childhood and progress to more serious forms of violence in adolescence (Dishion,
Veronneau, & Myers, 2010; Hann & Borek, 2001). Externalizing problems are considerably stable over time (Mesman, Bongers, & Koot, 2001), with criminality likely emerging from a trajectory characterized by externalizing behaviours (Thompson et al., 2011). While early problems may be typified by behaviours such as minor aggression and bullying, later problems in adolescence may be characterized by more severe acts, such as using weapons and sexualized aggression (Lahey & Waldman, 2005). Serious behaviour problems such as criminal actions are unlikely to occur prior to adolescence; however, those who engage in these behaviours early on are at much higher risk of long term negative outcomes, including persistent and heterogeneous behaviour problems (Biglan et al., 2004; Zahn-Waxler, Usher, Suomi, & Cole, 2005).

Examining a spectrum of related externalizing, antisocial, and criminal behaviour problems is essential for several reasons. Single types of problematic behaviours are often correlated, such as juvenile offending, running from home, aggression, defiance, substance use, hyperactivity, conduct disorder, and oppositional defiance disorder (Bergman, Andershed, & Andershed, 2009; Lahey & Waldman, 2005). Externalizing behaviours, antisocial behaviours, and criminal behaviours tend to be highly clustered with each other, and less strongly associated with other concerns such as internalizing issues (e.g., anxiety, depression) (Biglan et al., 2004). Several behaviour problems can occur simultaneously or sequentially, suggesting that these problems are influenced by similar biological and environmental processes, and can have a compounding impact on one another (Haugaard, 2001; Loeber & Burke, 2011). Examining single behaviour problems in isolation, therefore, will not fully illuminate the complex developmental processes that contribute to negative behavioural outcomes such as criminality. Finally, by examining a wide spectrum of behaviours, an understanding of developmental trajectories unfolds (Lahey & Waldman, 2005), as the presentation of problems tends to differ according to an individual’s developmental stage (Bergman et al., 2009). Given the stability of these behaviour problems over time, it is crucial to examine how these problems present across the life course.

While externalizing, antisocial, and criminal behaviours are highly correlated and appear to form a spectrum of problematic behaviours in childhood and adolescence, there is a great deal of heterogeneity within the developmental trajectories of behaviour problems as well as the various expressions of these problems both within and between individuals. Behaviour problems such as
aggression can represent reactions to threats, provocations, or frustrations, and are sometimes associated with characteristics such as high arousal and impulsivity (Buchmann, Hohmann, Brandeis, Banaschewski, & Poustka, 2014). For other young people, problematic behaviours are utilized deliberately and intentionally to obtain a desired goal or outcome, such as attaining a preferred toy or object from a peer, or solving a problem (Crick & Dodge, 1996). As young children grow older, covert forms of behaviour problems (e.g., indirect or relational aggression) tend to appear in addition to the more overt forms (e.g., physical fighting) (Hann & Borek, 2001). Likewise, delinquency and criminality can take many forms, including more covert forms (e.g., shoplifting) and overt forms (e.g., violence) (Loeber & Farrington, 2001). The common thread that connects externalizing, antisocial, and criminal behaviours is that these behaviours violate societal rules, often causing harm to others, interfering with the acquisition of important developmental tasks, and generating significant social and economic costs (Biglan et al., 2004; Cohen & Piquero, 2009; Keenan, 2001). Estimates indicate that a typical high risk youth with multiple contacts with the justice system generates $4 million to $7 million in costs to society (Cohen & Piquero, 2009). Preventing serious criminal actions will not only improve developmental outcomes for individual youth, therefore, but will also reduce costs to victims and society as a whole.

A developmental approach is useful when exploring the factors that contribute to the initiation, maintenance, and progression of externalizing, antisocial, and criminal behaviours. Beginning in the prenatal period, certain factors increase the likelihood of future child and adolescent behaviour problems, such as maternal exposure to stressors and toxins as well as obstetric complications (Biglan et al., 2004; Raine, 2005). From birth, factors at the individual, family, peer, and broader community and structural levels appear to interact and contribute to behaviour problem development and maintenance (Matjasko, Barnett, & Mercy, 2013). While it is considered normative for children to display minor forms of misconduct such as aggression and non-compliance early in life, these behaviours tend to diminish with language, emotional, and cognitive development (Hann & Borek, 2001; Keenan, 2001). Children who continue to demonstrate significant problem behaviours beyond the developmentally appropriate stages tend to have other compounding difficulties, such as poor language skills (Menting, van Lier, & Koot, 2011) and biases in social information processing (Crick & Dodge, 1996; Matjasko et al., 2013).
Children and youth who develop behavioural disturbances are also more likely to experience inconsistent and harsh parental discipline practices (Buchmann et al., 2014), low levels of warmth, high levels of overprotection, and high levels of rejection by caregivers (Buschgens et al., 2010), as well as inadequate monitoring and supervision (Biglan et al., 2004). Other family factors are associated with behavioural resilience, such as emotionally positive parent-child relationships, attentiveness, and the ability to provide structure, supervision, and monitoring to children (Lösel & Farrington, 2012; Ttofi, Bowes, Farrington, & Lösel, 2014).

Compared to infants and young children, older children and adolescents interact with a broader range of environments outside of the family, including the neighbourhood, community, and school. While social support and collective monitoring in the neighbourhood and community context represent important protective factors (Hann & Borek, 2001; Ttofi et al., 2014; Wikstrom & Sampson, 2003), other features of these environments contribute to behaviour problem development among children and adolescents, such as transience, the availability of substances and weapons, and exposure to violence (Biglan et al., 2004; Fang, Rosenfeld, Dahlberg, & Florence, 2013; Matjasko et al., 2013). Likewise, certain features of school environments represent risk factors for behaviour problems while other features are markers of resilience. Children who attend schools that have low levels of resources, suboptimal teaching practices and low teacher expectations are at greater risk of behavioural difficulties (Matjasko et al., 2013), whereas positive school climate, academic achievement, and involvement in school activities contribute to emotional and behavioural resilience (Lösel & Farrington, 2012; Mahatmya & Lohman, 2011; Ttofi et al., 2014).

Peer and group processes tend to exert a greater influence on children after school entry, and also play a significant role in the development of behaviour problems (Biglan et al., 2004). Children who display externalizing and antisocial behaviour are at risk of experiencing rejection by their peers, which can lead them to form friendships with deviant peer groups (Hann & Borek, 2001; Stuaro, van Lier, Cuijpers, & Koot, 2011). While deviant peers can model and reinforce antisocial and criminal behaviours, involvement in a peer group that disapproves of such behaviours can act as a protective factor for vulnerable children and youth (Lösel & Farrington, 2012). Thus, as with factors at the individual, family, neighbourhood, community, and school
levels, peers can exert both a positive and negative influence on the behaviours of developing young people. Overall, like maltreatment, the causes and characteristics of externalizing, antisocial, and criminal behaviours are complex and heterogeneous, with behavioural trajectories across the life course influenced by factors at all levels of an individual’s ecology.

### 1.2.3 Child Welfare Services

Philosophies on how to best support children and families in need have changed over time, largely reflective of changing conceptions of childhood, shifting beliefs about the causes of family vulnerabilities, and varying ideas about who is responsible for resolving family problems (Kamerman & Gatenio-Gabel, 2014). Like other social service systems, the underlying philosophy, purpose, and goals of child welfare services have shifted several times over the past two centuries. Child welfare policies and systems in Canada were originally developed in the nineteenth century in response to specific social and economic conditions, including population changes associated with the Industrial Revolution and immigration, the emergence of an educated middle class, and a strong emphasis on social reforms for children and families living in poverty (Swift, 2005). By the middle of the nineteenth century, there was a growing recognition of the distress associated with living in poverty, and an emerging sense of public responsibility to relieve this distress in order to maintain social order and stability (McCullagh, 2002). The efforts of middle-class reformers focused specifically on developing services to identify and assist children who were deemed neglected, delinquent, or orphaned (Swift, 2005). It was believed that children could be saved from leading lives characterized by poverty, crime, and immorality, if intervention occurred early enough in life (Chambers, 2006).

During this movement, institutions were established to serve children who were deemed in need of ‘saving’, due to physical or developmental challenges, loss of caregivers, or criminal offending early in life (McCullagh, 2002). One such institution was the Toronto Children’s Aid
Society, founded in 1891 with a diverse set of goals, including to provide short term shelter for neglected children, promote adequate education for children living in poverty, encourage separate treatment of young offenders (McCullagh, 2002), and reduce the societal costs associated with juvenile and adult crime by ‘saving’ children (Swift, 2005).

The dual focus on both protecting children and addressing youth crime demonstrates the early connections between the child welfare and youth justice systems in Canada. The child-saving movement of the late nineteenth century led to an increased focus on rehabilitation and therapeutic intervention for young people who committed offences (Bazemore & Terry, 1997). These historical developments distinguished adolescents as a separate category of offender, under the dual assumptions that young people were in need of saving, and malleable enough to be saved. During this time, young offenders were frequently placed in foster homes as a form of incarceration, and by 1919, young offenders represented over 66% of the residents of children’s aid society shelters (McCullagh, 2002). While young people who committed delinquent or criminal acts were viewed as victims in need of support in the early days of the child welfare system, responsibility for these children shifted with the development of the youth justice system in the early twentieth century. Like child welfare policies, Canada’s approach to the youth criminal justice system has changed several times since the child-saving movement, reflective of the various ideological approaches to defining and addressing youth crime (e.g., public protection versus youth protection, individual responsibility versus external constraints on behaviour) (Hartnagel, 2004).

At present, the provinces and territories are responsible for delivering child welfare services, and the youth justice system is organized at the federal level. While there is variation across Canada and internationally in the structure of child welfare systems, these systems tend to share the common goal of protecting and responding to the needs of children who have been abused or neglected (Kamerman & Gatenio-Gabel, 2014). The latest available statistics indicate that an estimated 235,841 maltreatment-related investigations were conducted by child welfare service providers in Canada in 2008, a rate of 39.16 per 1,000 children (Trocmé et al., 2010). An examination of international trends suggests that between 1.5 and five percent of all children are
reported to child protection agencies each year for concerns of maltreatment in the United Kingdom, United States, Australia, and Canada (Gilbert et al., 2009).

Since the beginning of child welfare systems in Canada, child welfare agencies have offered several key services to children and families (Swift, 2005). Traditionally, these agencies accept referrals from reporters about alleged incidents of maltreatment, determine whether to screen the referral call into the system, and trigger an investigation for those calls that are screened in (Fuller, 2014). The investigation process allows child welfare systems to collect information about child safety and well-being and determine whether the allegations of child maltreatment are valid (Trocmé et al., 2010). Based on the information gathered during the initial investigation, child welfare workers usually decide whether a child and/or family requires further services to prevent harm or to address harm that has already occurred (Jonson-Reid, 2004). Such services typically include in-home support or alternative care arrangements for children (Swift, 2005). A final core service provided by child welfare agencies is adoption, for those children whose caregivers are no longer able to care for them, due to death or relinquishment of legal guardianship (Swift, 2005). In addition to these key services, child welfare workers perform a crucial case management function in which they can refer a child or family to specialized social services in the community if needed, such as family counseling, food banks, or psychiatric services (Fallon et al., 2015).

The philosophy and goals of child welfare systems continue to shift even today. In recent years, the scope of child welfare services in Canada has expanded, a notable shift beyond addressing urgent child protection needs such as risk of immediate injury, to include a focus on investigating more complex family issues that pose a risk to longer-term developmental outcomes (Trocmé, Kyte, Sinha, & Fallon, 2014). Similar patterns have been observed in the United States, with critics arguing that this expansion has overloaded child welfare systems and resulted in families unnecessarily receiving child welfare investigations (Fuller, 2014). As a response to these and other concerns, several child protection systems have shifted practice standards to include a range of differential or alternative response policies in recent years, intended to stream lower risk cases to community based supports that do not focus solely on child protection (Trocmé et al., 2014).
The expanding scope of child welfare systems in Canada highlights the difficulty in achieving consensus on what constitutes child abuse and neglect. This shift also highlights the complexities of providing child welfare services. Although the primary reason children are identified to child welfare agencies is maltreatment (a construct which is defined differently depending on the jurisdiction and the point in time), maltreatment is typically only one component of a high risk environment that often includes limited family resources, parental stress, and complex child needs (D’Cruz, 2004; Dodge, Pettit, & Bates, 1997). The ability of child welfare systems to respond to such complex needs has been questioned. Insufficient funding, poor coordination of services, inadequate staff training, and ever increasing workloads are frequently cited problems in child welfare systems (Proctor & Dubowitz, 2014). These and other systemic problems can constrain the ability of child welfare systems to protect children from maltreatment and respond to the needs of vulnerable families (Fallon et al., 2012). Due in part to these systemic factors, child welfare workers may be unable to recognize and effectively respond to the complex health and psychosocial vulnerabilities of children and families (Proctor & Dubowitz, 2014), including externalizing, antisocial, and criminal behaviour in children and youth.

1.3 Overview of Research Literature

1.3.1 Maltreatment and Externalizing, Antisocial, and Criminal Behaviour Problems

Based on the available longitudinal and cross-sectional research, there is strong evidence of a relationship between child and adolescent maltreatment and externalizing, antisocial, and criminal behaviour problems (e.g., Allwood & Widom, 2013; Burnette, 2013; Chapple, Tyler, & Bersani, 2005; Crooks, Scott, Wolfe, Chiedo, & Killip, 2007; Derzon, 2010; Dodge, Bates, &
Pettit, 1990; Leschied, Chiodo, Nowicki, & Rodger, 2008; Rogosch et al., 2010; Ryan, Williams, & Courtney, 2013). Research has utilized various methodological approaches, including gathering self-report, professional, observer, and/or administrative data. While most of the existing studies have examined maltreatment as a predictor of later behaviour problems, there is also evidence that behaviour problems can occur prior to the onset of maltreatment (Stouthamer-Loeber, Loeber, Homish, & Wei, 2001).

It is critical to consider the dimensions of abuse and neglect when examining the relationship between maltreatment and behaviour problems. Certain types of maltreatment are consistently associated with externalizing, antisocial, and criminal behaviours, including neglect (e.g., Bright & Jonson-Reid, 2008; Smith, Ireland, & Thornberry, 2005; Verrecchia, Fetzer, Lemmon, & Austin, 2010) and physical abuse (e.g., Eckenrode, Izzo, & Smith, 2007; Jaffee, Caspi, Moffitt, & Taylor, 2004; Klika, Herrenkohl, & Lee, 2012). Research also indicates that children and youth who experience multiple forms of maltreatment are more likely to engage in aggressive and delinquent behaviour compared to their counterparts who experience single forms of abuse or neglect (Crooks et al., 2007; Jonson-Reid, 2002; Jonson-Reid & Barth, 2000; Moylan et al., 2010). Severity and chronicity are other important dimensions of maltreatment that are associated with a greater likelihood of externalizing, antisocial, and criminal behaviours (e.g., Cicchetti, Rogosch, & Thibodeau, 2012; Eckenrode et al., 2001; Jackson, Gabrielli, Fleming, Tunno, & Makanui, 2014; Jonson-Reid & Barth, 2000; Ryan & Testa, 2005; Smith & Thornberry, 1995; Verrecchia et al., 2010).

Children and youth differ not only in their maltreatment experiences but also in their individual characteristics, family relationships, and school, neighbourhood, and community environments. Certain factors at the individual child level are associated with an increased likelihood of behaviour problems among maltreated young people, including being male (e.g., Grogan-Kaylor, Ruffolo, Ortega, & Clarke, 2008; Jonson-Reid, 2002; Ryan & Testa, 2005; Tabone et al., 2011), and having a disability or mental health problem (Bender, 2010; Bright & Jonson-Reid, 2008; Mallett, Dare, & Seck, 2009; Postlethwait, Barth, & Guo, 2010; Tabone et al., 2011). Family features such as caregiver depression, alcohol problems, and low income are associated with an increased likelihood of behaviour problems among maltreated children (Bright & Jonson-Reid,
2008; Jonson-Reid, 2002; Fagan, 2005; Tabone et al., 2011), whereas monitoring and positive caregiver-child relationships are associated with a lower likelihood of problematic conduct (Grogan-Kaylor et al., 2008).

In addition to individual and family factors, school factors are important to consider when understanding the relationship between maltreatment and behaviour problems. While young people who endure abuse and neglect are at risk of poor academic outcomes (Chapple & Vaske, 2010; Crozier & Barth, 2005), maltreated children and youth who are successful at school are less likely to engage in antisocial and criminal behaviour (Allwood & Widom, 2013; Bender, 2010; Brezina, 1998; Klika et al., 2012; Ryan, Hernandez, & Herz, 2007; Zingraff, Leiter, Johnsen, & Myers, 1994). Neighbourhood and community factors are also important considerations. Whereas community safety, support, and cohesion are associated with a lower likelihood of externalizing problems among maltreated young people, community poverty and crime are associated with a higher likelihood of these problems (Tabone et al., 2011; Verrecchia et al., 2010; Yonas et al., 2010).

While single risk and protective factors are important to consider, it is most critical to recognize the impact of the accumulation of risk and disadvantage at the individual, family, school, and community levels. There is consensus that a comprehensive examination of cumulative risk and protective factors is necessary, as evidence highlights that multiple interacting risk factors are far more detrimental to child outcomes than any one or two risks (MacKenzie, Kotch, Lee, Augsberger, & Hutto, 2011). Children and youth who are maltreated are more likely to display externalizing, antisocial, and criminal behaviour problems when they experience compounding risks, such as having caregivers with low education, low income, and mental health and substance use issues (MacKenzie et al., 2011; Tabone et al., 2011). Attending to cumulative risk and protective factors in the lives of children and youth, therefore, provides insight into which young people are at greatest risk of maltreatment and externalizing, antisocial, and criminal behaviours.
1.3.2 Child Welfare Services and Externalizing, Antisocial, and Criminal Behaviour Problems

A great deal of research has focused on understanding the relationship between maltreatment and behaviour problems; however, fewer studies have examined the child welfare services provided to maltreated children who exhibit these problems and the outcomes associated with these services. Intended to mitigate the negative consequences of child maltreatment by improving safety and stability in the lives of children, child welfare interventions can change the environmental contexts in which young people develop and can assist them in coping with a variety of challenges (DeGue & Widom, 2009; Jonson-Reid, 2004). Although child welfare services have the potential to promote behavioural resilience among maltreated young people, it is critical to consider the possibility that contact with the child welfare system can intensify behaviour problems for certain children and youth. Previous research has examined the positive and negative behavioural outcomes associated with child welfare interventions, with most studies focusing on the impact of placement in out-of-home care.

It is challenging to interpret research on outcomes following child welfare placement. Children who are placed in out-of-home care are different from those remaining at home in significant ways, and the types of placement settings suitable to particular children are based on their individual characteristics (Berger, Bruch, Johnson, James, & Rubin, 2009). Perhaps due to the difficulty of untangling selection effects from the true impact of placement, research on children’s behavioural outcomes following out-of-home care often generates conflicting findings. While some research suggests that placement can positively impact maltreated children and adolescents by reducing the likelihood of behaviour problems (DeGue & Widom, 2009; Jonson-Reid & Barth, 2000; Lemmon, 2006; McMahon & Clay-Warner, 2002), other studies have shown that placement is associated with an increased risk of criminality in adolescence and adulthood (Alltucker, Bullis, Close, & Yovanoff, 2006; Cusick et al., 2010; Derzon, 2010; Doyle, 2008; Jonson-Reid, 2002; Ryan & Testa, 2005). This is particularly evident when placements are unstable (Aarons et al., 2010) and when youth are placed in group home settings.
(Cusick et al., 2010; Ryan, Marshall, Herz, & Hernandez, 2008). In addition to selection effects, disparate findings across studies may be due to differences in methodological approaches (e.g., controlling for early behaviour problems versus not accounting for problems that existed prior to placement), sample characteristics (e.g., age, length of time involved in child welfare), and placement features (e.g., type, length, stability, placement history).

Although it is difficult to determine the unique impact of child welfare interventions on child and adolescent outcomes, there is general agreement that children and youth who enter out-of-home care with behaviour problems are less likely to experience successful placements than their counterparts without these problems. Children with behaviour problems at the beginning of a child welfare placement are more likely to experience a placement disruption (Chamberlain et al., 2006), less likely to successfully integrate into foster homes, and less likely to be adopted (Leathers, Spielfogel, Gleeson, & Rolock, 2012). These children are at significant risk of never acquiring permanency and stability, which threatens their well-being and ability to form successful long-term relationships (Rubin, O’Reilly, Hafner, Luan, & Localio, 2007). Reciprocally, placement instability is associated with an increased risk of delinquency, arrest as a juvenile and adult, violent arrest, and incarceration (Baskin & Sommers, 2011; Cusick et al., 2010; Runyan & Gould, 1985; Ryan & Testa, 2005; Ryan et al., 2007; Ryan et al., 2008; Widom, 1991), even after controlling for early child behaviour problems (DeGue & Widom, 2009) and even among children with no previous problems (Newton, Litrownik, & Landsverk, 2000).

In addition to being at risk of experiencing an unstable placement, there is evidence that young people with behaviour problems are more likely to be placed in intensive or restrictive settings, such as group homes and residential treatment facilities (James, 2006). These settings are typically thought of as last resort services for young people who cannot be placed in family based settings (Barth, 2005; James, 2006). While these young people enter care with challenging behaviours, being placed in a group home setting can increase the likelihood of worsening behaviour problems in some circumstances (Baskin & Sommers, 2011; Cusick et al., 2010; Ryan et al., 2008). In fact, there is little scientific evidence supporting the use of group care settings for children and youth and these placements are associated with significant costs (Barth, 2005). Other types of placement settings such as kinship foster care, on the other hand, are associated
with a lower likelihood of behaviour problems (Rosenthal & Curiel, 2006). While children with lower levels of externalizing, antisocial, and criminal behaviour problems may be more likely to have kinship care as an option, it is possible that living in a family setting with familiar caregivers alleviates behavioural challenges and provides a more stable environment for children and youth (Cheung, Goodman, Leckie, & Jenkins, 2011). Indeed, research indicates that kinship foster care placements are associated with a lower risk of placement disruption (Chamberlain et al., 2006), regardless of child behavioural issues at the beginning of placement (Helton, 2011).

1.4 Conclusion

Child maltreatment is a multidimensional and heterogeneous experience that has the potential to cause serious and long-lasting harm to children and youth. Externalizing, antisocial, and criminal behaviour problems are equally as complex and diverse, and can cause harm to the individuals who engage in these behaviours as well as those who are impacted. While research has established that maltreatment is associated with behaviour problems, much is left to learn about this association, particularly in the Canadian context. Research is needed to determine which maltreated young people are at greatest risk of developing behaviour problems, and which children and youth who struggle with behaviour problems are at greatest risk of maltreatment. Knowledge of the mechanisms explaining why maltreatment is associated with behavioural difficulties for some children but not others is needed to develop effective prevention and intervention strategies formulated to interrupt this association.

Intended to detect and respond to young people who are abused and neglected, child welfare agencies are in a unique position to serve maltreated children who exhibit behaviour problems. Research provides insight into the challenges children and youth with behaviour problems face upon coming into contact with the child welfare system, particularly when out-of-home
placements are deemed necessary. It is unclear, however, what types of child welfare services are provided to maltreated young people who demonstrate externalizing, antisocial, and criminal behaviour problems. It is critical to not only advance knowledge of which interventions are effective in addressing children’s behavioural challenges and which interventions are unsuccessful, but also to consistently monitor the types of child welfare services provided to maltreated young people with behaviour problems at a population level. Understanding current service provision practices in Canada will provide a foundation from which effective evidence-informed interventions can be developed and evaluated, and will offer insight into whether service standards must change in order to improve outcomes for the vulnerable young people who have experienced maltreatment and display behaviour problems.

2.1 Introduction

Child abuse and neglect is a serious childhood adversity associated with significant social and economic costs and a range of consequences for children and youth, including depression and other internalizing issues and disruptions to cognitive and emotional development (Cicchetti & Toth, 2005). It is well established that maltreatment is associated with behaviour problems, such as externalizing, antisocial, and delinquent or criminal behaviour (e.g., Burnette, Oshri, Lax, Richards, & Ragbeer, 2012; Cecil, Viding, Barker, Guiney, & McCrory, 2014; Ryan et al., 2013). Almost thirty years ago, Garbarino and Plantz (1986) underscored the difficulty involved in understanding the magnitude, direction, and significance of this association, an observation that remains true. Behaviour problems may play a causal role in eliciting maltreatment or may be a consequence of abuse or neglect, a bidirectional relationship may exist, or alternatively, maltreatment and behaviour problems may have common causes. Complex contextual mechanisms likely explain why maltreatment and behaviour problems are associated for some young people, but not others. The difficulty in understanding these complex issues demands attention to a spectrum of diverse theoretical perspectives that can explain the relationship between child abuse and neglect and externalizing, antisocial, and criminal behaviours. A comprehensive analysis and integration of theories will illuminate the mechanisms linking maltreatment with behaviour problems and will provide insight into the question of which maltreated children are at greatest risk.
Child welfare services represent a key service system for children and youth who experience maltreatment, a population at significant risk of behavioural difficulties. Indeed, it is estimated that between 20 and 50 percent of the populations served by child welfare systems struggle with clinically significant behaviour problems such as aggression and criminality (see Campbell, Thomas, Cook, & Keenan, 2013; Ellenbogen et al., 2013; Keil & Price, 2006; Postlethwait et al., 2010). Child welfare services are in a position to play a crucial role in preventing behaviour problems among maltreated children, as well as intervening to facilitate service delivery for children who exhibit behavioural difficulties. It is unclear, however, how child welfare systems can best meet the needs of the vulnerable young people who have experienced maltreatment and demonstrate externalizing, antisocial, or criminal behaviours. Analyzing and integrating theoretical knowledge will offer insight into the specific elements of child welfare services that promote positive outcomes, and the factors that constrain effective service delivery.

While the empirical literature offers some understanding of why maltreatment is associated with behaviour problems and how child welfare service providers can best support maltreated children with these problems, this paper contributes to the scant body of work that applies theories to these questions. After a comprehensive review of relevant literature, six theoretical perspectives were selected for further analysis: the ecological model, the transactional model, attachment theory, the life course perspective, the social learning perspective, and social-biological models. The purpose of this paper is to analyze and integrate these theoretical perspectives into a conceptual model that further explains (1) why child maltreatment is associated with behaviour problems, and (2) how child welfare services can prevent and alleviate behavioural difficulties among children who have experienced abuse or neglect. Informed by theories from across various disciplines, the theoretical analysis and integration presented in this paper is intended to assist researchers, practitioners, and policy makers in developing effective interventions and directing those interventions towards the most vulnerable children and youth.
2.2 Analysis of Theoretical Perspectives

2.2.1 Ecological Model

Ecological models represent an evolving body of theory and research focused on the environmental processes that impact human development across the life course (Bronfenbrenner, 1994). Originally developed by Bronfenbrenner in the 1970s (1974, 1977, 1979), a central tenet of the ecological model is that physical, social, and emotional development is impacted by the interactions between individual characteristics and the environment, including the family, peer, school, and community contexts (Jenson & Fraser, 2006; Scannapieco & Connell-Carrick, 2005). According to Bronfenbrenner (1994), human development occurs through a process of progressively complex reciprocal interactions between an active, evolving, bio-psychological human, and the individuals, objects, and symbols in her or his immediate environment. The enduring interactions that occur over extended periods of time are considered *proximal processes*, and include, for example, parent-child activities, solitary play or play with peers, reading, learning new skills, and performing complex tasks. These processes occur within an ecological environment, which is conceptualized as a set of nested structures, with the innermost level defined as the *microsystem* (e.g., family, school, peer group) and the outermost level defined as the *macrosystem* (e.g., culture, belief systems, opportunity structures, life course options) (Bronfenbrenner, 1994). The *chronosystem* adds a temporal dimension to the ecological model, representing change or consistency over time in the characteristics of the individual and her or his environment.

Applying the ecological model to the understanding of child maltreatment, Belsky (1980) proposed that the causes of maltreatment are ecologically nested. While the *microsystem* is viewed as the immediate context in which maltreatment occurs, Belsky emphasized the importance of interactions among various levels of the ecological system. Characteristics of the
caregiver, such as lack of experience with parenting, or history of maltreatment in her or his own childhood, can interact with other factors at the outer levels of the ecological system (e.g., parental unemployment, social isolation, community violence) as well as situational factors (e.g., parent-child argument, family crisis, bereavement or loss) to cause maltreatment. Belsky (1993) concluded that there is no single cause of maltreatment, and that there are no necessary or sufficient causes of maltreatment. Rather, there are multiple pathways to abuse and neglect, which tend to lead in the direction of maltreatment when risk factors outweigh protective factors.

In the study of externalizing, antisocial, and criminal behaviours, the ecological model is often utilized as a means to identify predictors or risk factors at various levels of a child’s ecology (e.g., Dishion, Capaldi, & Yoerger, 1999; Gorman-Smith, Tolan, & Henry, 2000; Suldo, Mihalas, Powell, & French, 2008). According to the ecological model, behavioural development and expression are influenced by a person’s interactions with the environment, including both the immediate physical and social settings and the relationships among settings (White & Renk, 2012). It is expected that specific environmental elements will heighten or diminish the risk of psychopathology over time, including the risk of problem behaviours in childhood and adolescence (Szapocznik & Coatsworth, 1999), and further, that contextual factors can have direct, mediated, and moderated effects on outcomes (Lochman, 2004). Such contextual factors include family and peer relationships, school characteristics, or a social service intervention, all of which can alter the link between a risk factor and a later behavioural outcome (Lochman, 2004; Osher et al., 2004).

The ecological model offers important insight into why maltreatment is associated with behaviour problems. In line with this model, it is expected that the extent to which maltreated children develop behaviour problems will vary significantly, depending on their ability to cope with their maltreatment and the availability of support in the environment, from peers, family, community, school, and social services (Tabone et al., 2011). As protective factors diminish and risk factors accumulate at various ecological levels in the life of a maltreated child, behaviour problems become more likely to develop and persist (MacKenzie et al., 2011; Tabone et al., 2011; Verrecchia et al., 2010). Maltreatment can add to an already accumulating number of risks in a child’s social ecology, playing a causal role in the development of externalizing, antisocial,
and criminal behaviour problems. At the same time, difficult child behaviour can be understood as an individual characteristic that increases the risk of maltreatment.

The ecological model also provides insight into how child welfare service providers can intervene to promote positive behavioural outcomes among maltreated children. According to this model, social policies and programs will be particularly effective when aimed at enhancing exposure to proximal processes, or in other words, those enduring interactions that occur over extended periods of time and contribute to healthy growth and development (e.g., positive parent-child interactions) (Bronfenbrenner, 1994). In line with a focus on proximal processes, child welfare service providers could support positive behavioural outcomes by focusing on enhancing these processes at the family level. Further, the ecological model points to a wide range of strategies for intervening to address maltreatment and children’s behaviour problems, with the assumption that services are most effective when multiple levels of the ecological system are targeted, including the family, peer group, school, and community (Jenson & Fraser, 2006; Wiehe, 1989).

It is important to recognize that child welfare service providers also operate in an ecological context that can enhance or constrain their ability to impact proximal processes and target multiple levels of the ecological system. This concept is central to the Decision-Making Ecology, a theoretical perspective that explores the influence of the ecological context on child welfare practice (Baumann, Kern, & Fluke, 1997). Various factors are hypothesized to influence the ability of child welfare service providers to deliver effective services. Such factors include characteristics of child welfare workers (e.g., worker training, experience), child welfare agencies (e.g., management structure of child welfare agency), and the larger policy and legal context (Baumann, Dalglish, Fluke, & Kern, 2011). Understanding how child welfare service providers can intervene to promote positive behavioural outcomes among maltreated children, therefore, demands attention to the ecological context in which child welfare workers operate.

With compelling evidence to support the ecological model, it is widely applied in studies across various disciplines (e.g., Cicchetti & Lynch, 1993; Dishion, Capaldi et al., 1999; Gorman-Smith et al., 2000; Jonson-Reid, 1998; Osher et al., 2004; Scannapieco & Connell-Carrick, 2005; Suldo
et al., 2008; White & Renk, 2012). Evidence from these and other studies indicates that maltreatment is associated with externalizing, antisocial, and criminal behaviour problems in the context of multiple ecological risks (e.g., MacKenzie et al., 2011; Tabone et al., 2011; Verrecchia et al., 2010). Although the comprehensive nature of the ecological model is a key strength, it is challenging to truly test its assumptions. Empirical measurement of every level of ecological analysis is beyond the scope of any single research effort (Belsky, 1980). Even so, theoretical insights based on the ecological model allow for a deeper understanding of why maltreatment is related to behaviour problems, and how to best integrate knowledge from various levels of ecological analysis to inform interventions.

2.2.2 Transactional Model

The transactional approach to understanding maltreatment emerged in the work of Sameroff and Chandler (1975), Belsky (1984), and Bugental, Mantayla, and Lewis (1989). Sameroff and Chandler posed two key questions (Sameroff, 2009): Why do the vast majority of infants with medical anomalies grow up to not have the expected cognitive and emotional difficulties? And, why do many parents with personality traits associated with maltreatment not abuse or neglect their children? For Sameroff and Chandler, the answer to these questions was found in transactions. These authors proposed that there are constant transactions among child characteristics, parental traits, and environmental factors, resulting in a dynamic and reciprocal process contributing to child development (Sameroff & Chandler, 1975). The transactional model is naturally complementary to the ecological model (MacKenzie et al., 2011), particularly in its attention to the influence of the accumulation of risk factors at various ecological levels on developmental trajectories (Sameroff, Bartko, Baldwin, Baldwin, & Seifer, 1998).

Transactional models offer useful insight into the relationship between maltreatment and behaviour problems. According to Bugental and colleagues (1989), difficult behaviours in
children can interact with parents’ self-perceived and actual power, invoking harsh and inconsistent responses toward children. Those parents who believe they have little power over children are expected to be more reactive in potentially threatening interpersonal interactions, and to display negative affect and inconsistent messages to children, which maintains or exacerbates difficult child behaviours (Bugental et al., 1989). For instance, if a child refuses to comply with a parental demand, and the parent withdraws the demand to reduce the child’s negative behaviours, such behaviour is rewarded and is likely to persist, while the parent may escalate attempts to gain control by utilizing increasingly harsh parenting techniques, such as physically or psychologically controlling behaviours (Stringer & La Greca, 1985). Bugental (2009) later proposed a bio-cognitive transactional model of child maltreatment, proposing that adults with easily activated physiological threat response systems are more likely to display harsh parenting when interacting with children demonstrating difficult behaviours. Patterson (1982) also proposed a model of coercive parent-child interactions, predicting that children with difficult behaviours elicit a harsh and coercive response from parents, particularly those who lack effective child management skills or who display irritable and explosive behaviour (also see Simons, Simons, & Wallace, 2004; Stringer & La Greca, 1985; Tzeng, Jackson, & Karlson, 1991).

A solid empirical evidence base supports the central tenets of transactional models (e.g., Bugental, Blue, & Lewis, 1990; Caspi et al., 2004; De Haan, Prinzie, & Dekovic, 2012; Gromoske & Maguire-Jack, 2012; Zadeh, Jenkins, & Pepler, 2010). Overall, transactional models are flexible and allow for the incorporation of ideas drawn from a variety of theoretical perspectives along with consideration of a wide range of variables operative within families (Bugental, 2009). These models can promote understanding of why maltreatment is associated with externalizing, antisocial, and criminal behaviour problems, and can also inform child welfare practice. Informed by transactional principles, child welfare service providers could intervene to help parents develop skills and capacities for consistently managing difficult child behaviour without harsh parenting practices, while promoting parental feelings of empowerment and self-efficacy.
2.2.3 Attachment Theory

A tremendously large body of literature has amassed over the past several decades in support of attachment theory (e.g., Baer & Martinez, 2006; Crittenden, 2000; Egeland & Sroufe, 1981; Fearon, Bakermans-Kranenburg, van Ijzendoorn, Lapsley, & Roisman, 2010; Lowell, Renk, & Adgate, 2014; Tucker & MacKenzie, 2012). According to this theory, human survival is dependent on the proximity of attachment figures, which is accomplished through infant attachment to the parent, parent caregiving to the infant, and complementary maternal and infant patterns of behaviour (Crittenden & Ainsworth, 1989). Crittenden and Ainsworth (1989) note that attachment is usually achieved in the first year of life. By age three, the child no longer depends on the actual presence of the attachment figure for a sense of security, but rather the child feels secure because of the mutual trust and understanding that has developed with the caregiver. As children grow older, attachments can be maintained without physical proximity for increasingly long periods of time, and in adolescence, young people begin to search for new attachments outside of the family. Later, stable and affectionate relationships are usually desired in adulthood. Attachment relationships are important to individual functioning at all stages of life, with the specific nature of attachments varying with developmental stages (Crittenden & Ainsworth, 1989).

Ainsworth, Blehar, Waters, and Wall (1978) conceptualized three major patterns of attachment in infancy, including secure, anxious/ambivalent, and anxious/avoidant or anxious/resistant. Securely attached infants are those with sensitive and responsive caregivers. These infants display positive affect and cry very little, and are easily reassured and comforted when attachment behaviour is activated. Caregivers that are inaccessible, unresponsive, or inappropriately responsive are more likely to have infants with anxious attachment. For infants with anxious/ambivalent attachment, efforts at gaining proximity to the attachment figure are often met with frustration. When the caregiver does eventually respond, the infant is ambivalent and difficult to soothe. This leads to a pattern in which the infant is distressed at any sign of separation. Infants with anxious/avoidant or anxious/resistant attachment behave similarly in
response to inaccessible and rejecting caregivers, although in high stress situations, they tend to display little stress upon separation and avoidance of the caregiver upon reunion. Since Ainsworth and colleagues (1978) initially proposed this classification system, there have been numerous attempts at expanding and revising it (Crittenden & Ainsworth, 1989). The most notable addition to this classification scheme is disorganized/disoriented attachment, a pattern characterized by the absence of an organized strategy for coping with stress (Main & Hesse, 1990; Main & Solomon, 1986).

Proponents of attachment theory persuasively argue that the quality of the early attachment relationship has an enduring influence throughout the life course, a proposition that is well supported by research evidence (Gauthier, Fortin, & Jeliu, 2004; Fearon et al., 2010; Limke, Showers, & Zeigler-Hill, 2010; Lowell et al., 2014; Vondra & Toth, 1989). Early attachments produce a cognitive model of relationships and the self, influencing perceptions of self-worth as well as expectation of others (Crittenden, 1985). In this way, early attachments influence an infant’s development of internal representational models, or in other words, expectations regarding the nature of future relationships (Ainsworth, 1979; Bowlby, 1969). Infants who experience unresponsive or inappropriate caregiving are more likely to form a representational model that leads them to believe that they are unworthy of the caregiver’s love and care, and that they cannot trust the caregiver (Crittenden & Ainsworth, 1989). Although these models are initially developed from early experiences with caregivers, they are dynamic and modifiable as individuals grow and have further experiences with attachment figures (Crittenden, 1985, 2000). Early experiences with caregivers, therefore, play a critical but not deterministic role in human development, including in the development of psychopathology (Sroufe, Carlson, Levy, & Egeland, 1999).

Attachment has been identified as a potential mechanism that explains the relationship between maltreatment and externalizing, antisocial, and criminal behaviours (e.g., Feerick, Haugaard, & Hien, 2002; Sousa et al., 2011). According to attachment theory, experiences of early abuse and neglect have dramatic and specific consequences on the quality of early attachment patterns (Egeland & Sroufe, 1981). Bowlby (1944, 1973) proposed that negative consequences of disruptions in early relationships with caregivers include an inability to show concern for others
as well as aggressive and delinquent behaviour. In Bowlby’s (1944) early study of delinquents, he noted that most of these troubled young people had a history of repeated separations from their mothers in early infancy, which led to a loss of trust in the attachment figure and subsequent severe behavioural disturbances. Several criminological theories, including social control theory (Hirschi, 1969) and the social development model (Catalano et al., 2005), also point to the role of attachments and bonds in preventing criminal behaviour, specifically positive attachments to prosocial family members, peers, and others. Thus, in line with these theories, maltreatment is prone to disrupting attachment relationships, thus contributing to the development of behaviour problems.

Attachment theory is highly relevant when understanding the critical influence of child welfare services on behavioural outcomes of maltreated children and youth. Child welfare service providers are in a position to work towards the prevention and alleviation of behaviour problems among maltreated children by supporting secure attachments early in life, helping to repair disruptions in attachment relationships, and facilitating access to therapeutic resources for young people with attachment disturbances. Attachment theory is also helpful in informing out-of-home child welfare placement interventions. Placement in out-of-home care is typically the last resort service in child welfare, but is considered necessary in certain highly pathological situations (Gauthier et al., 2004). Children in out-of-home placements are at high risk for disordered attachment, and reciprocally, attachment disturbances create barriers to establishing permanent homes and stable emotional ties for these children (Gauthier et al., 2004; Tucker & MacKenzie, 2012). A perspective informed by attachment theory considers positive attachment relationships and placement stability crucial in preventing and alleviating behaviour problems among maltreated children living at home and in out-of-home placements.
Life course perspectives focus on the development of antisocial and criminal behaviour, concentrating on risk and protective factors across different ages, and the impact of life events on development (Farrington, 2005). According to John Laub and Robert Sampson’s life course theory (1993), children who have high quality bonds to caring family members and to positive school environments are less likely to engage in delinquent behaviour. While childhood experiences are considered critical in the development of criminal behaviour, these experiences are not expected to solely determine behavioural outcomes in later life. Rather, both continuity and change are expected in antisocial and criminal behaviours across the life course, depending on the strength and quality of attachments with family and institutions such as school and work. Laub and Sampson discuss three related concepts that illustrate the continuity and change in these behaviours over time: trajectories or pathways over the life span, transitions or life events that are embedded in trajectories, and turning points or points that generate a change in the life course. Laub and Sampson propose that significant life events and social bonds in adulthood can mitigate the trajectories of early childhood, and that turning points can change trajectories and redirect life paths over time (2001).

While Laub and Sampson emphasize that risk factors in childhood do not necessarily lead to negative outcomes in adulthood, these scholars do not ignore the possibility that early delinquency leads to accumulating disadvantage, which in turn limits opportunities for conventional development. They incorporate Moffitt’s (1993) concept of cumulative continuity into their theory, defined as the process through which delinquency incrementally damages the future by breaking bonds to individuals and societal institutions, creating negative consequences and generating stigma (Laub & Sampson, 1993). In this way, Laub and Sampson also incorporate aspects of labeling theory into their life course perspective, arguing that young people who engage in deviant behaviour are labeled and stigmatized from an early age, which is part of the process of cumulative continuity (see Hoffmann, 2011; Matsueda & Heimer, 2001). Cumulative continuity is viewed as being most detrimental for young people in marginalized
social locations. Young people in advantaged societal positions typically receive a continuity of social resources that allow them to establish ties to conventional adulthood, regardless of delinquent behaviour. In contrast, young people in marginalized social positions due to race or class have fewer social resources and in turn are more vulnerable to cumulative continuity (Laub & Sampson, 1993).

Other scholars have developed theories in line with the life course perspective to understand the development of delinquent or criminal behaviours in adolescence and adulthood. According to Thornberry’s interactional theory (1987), adolescents are not propelled along a unidirectional pathway to any outcome, but rather adolescents relate to people and institutions within an interactive system, and it is these interactions that shape behavioural outcomes. When social bonds are weak, a much broader array of behaviour is expected, including unconventional actions such as academic failure, substance use, and delinquency. In turn, these unconventional actions further weaken bonds to conventional society. Thornberry and Krohn (2005) expanded these theoretical propositions, arguing that antisocial child behaviour provokes coercive responses from parents and rejection by peers, which in turn increases the likelihood that such behaviour will continue. In a child’s early years, several factors are considered important to the onset of antisocial behaviour, including neuropsychological deficits, temperamental difficulties, parental monitoring and discipline, and structural adversity.

Variations of the life course perspective have been used to understand the consequences of maltreatment over the life span (e.g., Williams, 2003). While several researchers have applied the life course perspective to understanding the maltreatment-behaviour problem link (e.g., Burnette, 2013; Ireland, Smith, & Thornberry, 2002; Minh et al., 2013; Stewart, Livingston, & Dennison, 2008; Thompson & Tabone, 2010), few have focused on advancing this perspective to fully incorporate child abuse and neglect and child welfare service provision. This broad theoretical perspective, however, allows for the generation of hypotheses regarding the relationship between child maltreatment and externalizing, antisocial, and criminal behaviour problems, as well as the intervening role of child welfare service delivery. A key strength of the life course perspective is its empirical support (e.g., Allwood & Widom, 2013; Sampson & Laub, 1994; Sampson & Laub, 2005).
2.2.5 Social Learning Perspective

Social learning perspectives focus on the reciprocal and mutual influences that exist between children and others in their surroundings, including caregivers, family friends, peers, and neighbours (Simons et al., 2004). Albert Bandura (1971), an early social learning theorist, noted that humans possess the capacity to learn by both experience and observation, which enables the acquisition of large, integrated units of behaviour, as well as emotional responses to specific experiences. Bandura (1971) noted that observing others who engage in specific actions with little consequence will increase the likelihood of this behaviour in the observer, whereas witnessing certain actions being punished will inhibit such behaviours. In later work, Bandura (1973, 1978) applied social learning principles to understanding the development and maintenance of aggressive behaviour. He contended that while some elementary forms of aggression can be performed with little guidance, most aggressive activities require extensive learning.

Since the work of Bandura, other scholars have applied social learning principles to understanding externalizing, antisocial, and criminal behaviours. According to Snyder, Reid, and Patterson (2003), while social relationships provide opportunities for recurring learning of both prosocial and antisocial behaviours, the social contingencies and experiences that support antisocial behaviour often simultaneously impede the acquisition of other important developmental capacities, including the capacity to self-regulate, problem solve, comply with requests, and effectively relate to others. Importantly, Snyder and colleagues (2003) highlight the relevance of the social learning perspective to understanding the well-established gender difference in externalizing, antisocial, and criminal behaviour problems. According to these scholars, caregivers and peers more frequently reinforce positive social behaviours in females, rather than males, which operates to inhibit externalizing and antisocial behaviours among developing girls. Likewise, Côté (2009) points out that over the course of development, boys and girls experience distinct and specific types of reinforcement for their overtly aggressive
behaviours, which likely modifies behavioural development in gender-specific ways (Côté, 2009).

Social learning perspectives have been utilized to explain why maltreatment is associated with externalizing, antisocial, and criminal behaviour problems. According to social learning principles, young people who have aggressive models, such as family members or peers, learn that aggression is an option, and also learn how and when to be aggressive (Tzeng et al., 1991). Certain parenting practices, such as harsh and inconsistent discipline, or the use of physical or psychological control, model for children how to be aggressive and antisocial (Aalsma, Liu, & Wiehe, 2011; Hoffmann, 2011). According to this perspective, violence is transmitted through generations because young people tend to embody the same relational patterns that their early caregivers displayed (Herrenkohl, Huang, Tajima, & Whitney, 2003).

The social learning perspective has significant implications for child welfare intervention. Assuming that both prosocial and antisocial behaviours can be acquired based on social learning, child welfare services can help families by utilizing learning principles to enhance prosocial capacities in both parents and children. An important role of child welfare service providers can be to assist parents in learning how to consistently reinforce prosocial behaviour in their children, and how to establish appropriate consequences for antisocial behaviour. While these strategies cannot address all of the complex issues that contribute to maltreatment and behaviour problems, interventions based on learning principles can be incorporated into a more comprehensive and effective approach to addressing family vulnerabilities.
2.2.6 Social-Biological Models

Social-biological models focus on incorporating knowledge of biological and social processes in order to understand and explain specific human behaviours, mental and physical health issues, developmental outcomes, and other phenomena. Consistent with the person-in-environment approach that is central to the social work profession (Saleebey, 1992), social-biological models offer useful insight into the impact of abuse and neglect, the causes of externalizing, antisocial, and criminal behaviours, and the possible mechanisms explaining the association between maltreatment and behaviour problems. These models highlight that, like other disadvantages in the environment, child abuse and neglect can disrupt the development of essential biological processes and brain functions, areas of development that are critical for achieving optimal health and well-being (Cicchetti & Toth, 2005). In line with a social-biological perspective, environments in which child maltreatment occurs are considered a poor match for the human genotype and are therefore outside the normal range of environments expected by the human species (Twardosz & Lutzker, 2010). Given this poor match, exposure to events such as maltreatment is expected to negatively impact the development of neurotransmitter systems, neuroendocrine systems, and the immune system (De Bellis, 2005).

The negative consequences of maltreatment are considered to have particularly serious implications for the development of physiological stress response systems, which can impact children’s temperaments and their abilities to regulate emotions and behaviours (Burnette et al., 2012). For instance, the hypothalamic-pituitary-adrenal (HPA) axis has been implicated as a key physiological system that is affected by maltreatment, a system that plays a crucial role in human stress responses as well as the functioning of the brain (Cicchetti & Toth, 2005). Maltreatment has the potential to impact brain structures as well as brain functions (e.g., Bremner et al., 1997; De Bellis et al., 1999; McCrory, De Brito, & Viding, 2010; Teicher, Dumont, Vaituzis, Giedd, & Andersen, 2004), including structures in the prefrontal cortex region, an area implicated in the regulation of emotions (van Harmelen et al., 2010). In contrast to environments in which maltreatment occurs, the presence of adult nurturance and protection is thought to contribute to
the species-expectable environment for humans, or in other words, the kind of environment that supports typical human development (Twardosz & Lutzker, 2010). Experiencing high-quality caregiving early in life is considered critical to human development precisely because it supports the functioning of stress and affect regulation systems which enhance an individual’s capacity to cope with stressors in childhood and across the life course (Cicchetti & Lynch, 1995).

A key proposition of social-biological models is that human development occurs as a result of the interaction between biological and environmental processes. Consequently, children are expected to respond differently to similar maltreatment experiences, due to factors at the biological and social levels (Twardosz & Lutzker, 2010). That is, it is likely that similar experiences of maltreatment will impact children in a heterogeneous fashion and thus these experiences will not necessarily cause developmental disruptions (Cicchetti & Toth, 2005). Certain children, however, may be particularly vulnerable to the effects of maltreatment due to the interaction of biological and environmental factors. Indeed, research indicates that individuals who experience child maltreatment and possess a specific less efficient version of the serotonin transmitting gene (5-HTTLPR) are at increased risk of developing depression in childhood, adolescence, and early adulthood; however, individuals who possess this less efficient polymorphism but do not experience maltreatment are not at increased risk (Cutuli, Raby, Cicchetti, Englund, & Egeland, 2013).

Gene-by-environment interactions have also been implicated in the development of behaviour problems among maltreated children and youth. In a seminal study, Caspi and colleagues (2002) examined whether child maltreatment is most strongly related to antisocial behaviour among individuals who possess a specific variant of the monoamine oxidase A gene (MAOA) that metabolizes neurotransmitters such as serotonin and dopamine. The findings suggest that the relationship between maltreatment and antisocial behaviour is conditional on the MAOA genotype, such that children who experience maltreatment and possess the low MAOA activity genotype are at increased risk of antisocial behaviour whereas children who possess this genotype but do not experience maltreatment are not at increased risk (Caspi et al., 2002). Interestingly, this study found that among children with the high MAOA activity genotype, maltreatment was not associated with antisocial behaviour.
Biological models of criminal behaviour were put forth long before researchers began considering gene-by-environment interactions. While contemporary perspectives point to several possible biological factors that may interact with characteristics of the environment to influence the development of criminal behaviour, biological explanations of crime and deviance have historically focused on discovering the innate or organic differences that distinguished individuals who deviated from social norms (Beirne, 1988; Hoffmann, 2011). Such biological explanations of deviance and crime emerged in the nineteenth century and are largely regarded with skepticism and criticism, particularly because of the application of these explanations in order to persecute certain groups based on perceived innate deficiencies (e.g., the eugenics movement, Social Darwinism) (Marsh, Melville, Norris, & Walkington, 2006).

Contemporary approaches have identified several possible biological factors that may increase the likelihood of aggressive, violent, and antisocial behaviour while also recognizing and accounting for the importance of the environment. Some theorists hypothesize that these behaviours are heritable, passed down to future generations through genes that impact brain structures and functions under specific environmental conditions (Raine, 2008). Applying this hypothesis to understanding the relationship between maltreatment and behaviour problems, it is possible that maltreating parents have specific genetic risk factors for antisocial behaviour that are inherited by their maltreated children (Thornberry & Henry, 2013). That is, the very action of abusing or neglecting a child may be considered a form of violent, antisocial, or criminal behaviour, and therefore the relationship between maltreatment and behaviour problems may be partially explained by the shared genetic profile of maltreating parents and their children. It is also possible that the neurodevelopmental changes associated with experiencing maltreatment represent biological risk factors that increase the likelihood of externalizing, antisocial, and criminal behaviour. In other words, the biological consequences of abuse and neglect may be one and the same as the biological predictors of externalizing, antisocial, and criminal behaviour. While this is a compelling proposition, advances in theory and research are needed to more fully explicate the possible biological mechanisms explaining the relationship between maltreatment and behaviour problems as well as the specific environmental conditions that interact with and influence these mechanisms.
Social-biological models can potentially be applied to the child welfare context. In their review, Twardosz and Lutzker (2010) describe several interventions that explicitly incorporate knowledge of biological processes into efforts to prevent maltreatment and address its consequences. With knowledge of the social and biological processes that influence the development of externalizing, antisocial, and criminal behaviour, child welfare practitioners could target resources toward intervening in families who are at greatest risk of poor developmental outcomes including child behaviour problems (Hoffman, 2011). It is also critical to consider the possibility that caregivers who maltreat their children possess biological vulnerabilities that are associated with antisocial behaviour. These vulnerabilities may influence the effectiveness of interventions delivered in the child welfare context, and demand customized approaches that account for biological as well as social factors (McKinlay, van Vliet-Ruissen, & Taylor, 2014).

2.3 Discussion

2.3.1 Comparison of Theoretical Perspectives

Six theoretical perspectives (the ecological model, the transactional model, attachment theory, the life course perspective, the social learning perspective, and social-biological models) have been analyzed and applied in this conceptual paper. These perspectives offer useful insight into the mechanisms explaining the relationship between maltreatment and behaviour problems, while also offering guidance to child welfare practitioners in identifying and responding effectively to children at greatest risk of developing such problems. This analysis revealed many similarities across the six theoretical perspectives, highlighting their complementary nature and
providing a solid rationale for integrating knowledge from these perspectives into a conceptual model.

The ecological model offers a broad overarching perspective to which insight from other theoretical perspectives can be incorporated. For instance, social-biological models are naturally complementary to the ecological model and elaborate on factors at the individual biological level that interact with the environment to influence outcomes. Considering both the ecological model and social-biological model allows for deeper insight into the individual level factors that can interact with the environment to increase the likelihood of behaviour problems, while also providing insight into the various biological consequences of maltreatment that may occur under specific environmental conditions. Likewise, attachment to caregivers, family members, and peers may be understood within the ecological system. Attachment patterns are considered vitally important within attachment theory and the life course perspective, and when conceptualized through an ecological lens, may be considered one of the many proximal processes that shape development.

Overlap and similarity also exist among the other theoretical perspectives. For instance, the biological basis of infant-caregiver attachment is largely undisputed. Consistent with social-biological models, attachment theory highlights the underlying evolutionary and biological reasons attachment behaviour is activated in both caregivers and infants. Attachment behaviour is caused by an innate biological system that encourages infants to seek proximity to caregivers and vice versa, a system that is thought to be integral to our survival as a species (Strathearn, 2011). In another example of similarities across the theoretical perspectives, the transactional model and social learning perspective share a focus on inconsistent and harsh discipline, acknowledging that this type of parenting practice can actually reinforce problem behaviours in children and heighten parental frustration. Also consistent with social-biological models, according to the transactional model proposed by Bugental (2009), parents with biological vulnerabilities, specifically those parents who possess easily activated physiological threat response systems, will react more harshly to children’s behaviour problems than other parents.
A common thread that connects these six perspectives is a focus on the dynamic and complex causes of maltreatment and behaviour problems, and an emphasis on the multiple layers of the ecological system that surround a developing child. Avoiding deterministic assumptions, these perspectives do not suggest simple and direct causal links between maltreatment and behaviour problems. Rather, the perspectives all highlight that maltreatment and behaviour problems may be associated under certain circumstances for certain children, as a result of complex interactions between the child and the surrounding ecology.

2.3.2 Integration of Theory: A Conceptual Model

A broad conceptual model has been developed through synthesizing the theories analyzed in this paper, in order to deepen current understanding of why maltreatment is associated with externalizing, antisocial, and criminal behaviour problems; and how child welfare services can intervene to support maltreated children and youth with these problems. Drawing from transactional models and life course perspectives on crime, a central proposition of this model is that individuals are in constant transaction with their surrounding environments, and that there is both continuity and change in these transactions over time. The environment comprises many levels of the ecological system, including the individual child, family, neighbourhood, community, school, culture, social service structure, society, and global environment. Like developing children, child welfare service providers are also influenced by the ecological context (Baumann et al., 2011). The ability of child welfare service providers to offer effective interventions to vulnerable children and families is therefore influenced by various ecological factors, such as policy and funding structures.

According to this conceptual model and consistent with ecological and transactional models, families facing increasing levels of marginalization and accumulating disadvantage are at greater risk of serious, enduring maltreatment, and at greater risk of being referred to child welfare
agencies for concerns of abuse and neglect. Likewise, it is hypothesized that behaviour problems develop along various pathways, as a result of accumulating disadvantage and cumulative continuity at various levels of the ecological system. For instance, a genetic vulnerability or prenatal medical complication can lead to a situation in which an infant is in constant distress and difficult to soothe, generating feelings of frustration and helplessness in parents and impacting the attachment pattern. This sets the stage for future parent-child interactions and behaviours, whereby the parent views the child as difficult and the child views the parent as unpredictable, distant or critical and incapable of soothing the child’s distress. In this example, the child’s problematic behaviour is likely to escalate over time if the parent has little social support and knowledge of parenting, and few financial resources for respite or for involving the child in recreational activities. This child is more vulnerable to experiencing abuse or neglect because of the context in which he or she lives. In other situations, a child may live in the context of multiple disadvantages that contribute to the development and maintenance of behaviour problems. While one of these disadvantages may be maltreatment, others might include disorganized attachment, developmental or other disabilities, impairments in neurobiological processes, deviant peers, school difficulties, and structural marginalization.

Drawing from the ecological model, transactional model, and attachment theory, maltreatment and behaviour problems are reciprocally related in this conceptual model. Children with behaviour problems and related issues, such as difficult temperament or hyperactivity, are more vulnerable to experiencing maltreatment, as their individual characteristics can elicit a frustrated or harsh response from caregivers, particularly those caregivers who are faced with other stressors. In the context of accumulating disadvantages, this reciprocal relationship can result in an escalation of both maltreatment and problem behaviours, such that both become more severe and chronic. Among others, disadvantages include poor caregiving skills, overactive stress response systems for caregivers and children, impaired mental representations of relationships, school expulsion, neighbourhood disorganization, and lack of connection to the community. If protective factors are present and enduring, however, this reciprocal problematic relationship is likely to diminish. Child welfare services can act as either a further disadvantage or a protective factor, depending on a wide variety of factors including the effectiveness of the service and the willingness and ability of the family to participate in the service.
Applying the concept of turning points highlighted by the life course perspective (Laub & Sampson, 1993), the delivery of child welfare services signifies an important turning point for children and adolescents, in which life course pathways shift. If child welfare services result in the prevention of future maltreatment, improved familial relationships, the generation of new positive relationships at home, in school, and in the community, or fewer risk and more protective factors in the ecological context in which the child is developing, the child is likely to experience a turning point in which behavioural and other forms of adaptation improve. If child welfare services can address the causes of maltreatment while also reducing the accumulating disadvantage in a young person’s life, the probability of a positive trajectory shift also increases. If these services result in further disadvantages, such as attachment disturbances due to out-of-home placement instability or heightened stigma due to the school and community learning that a family is involved with the child welfare system, behaviour trajectories are likely to worsen. In line with an ecological perspective, the ability of child welfare services to positively influence the developmental trajectories of vulnerable children and youth will be impacted by various factors, including the structural contexts in which they operate.

This conceptual model is limited by its breadth and lack of specificity. The comprehensive review of theory presented in this paper, however, illuminates the complexity of explaining the relationship between maltreatment and behaviour problems, and understanding how child welfare services can address such problems among maltreated children. The complexity of these questions demands a broad and multifaceted conceptual model informed by diverse yet complementary theoretical perspectives. Another limitation of this conceptual model is that protective factors are not discussed in the same depth as risk factors. This gap is reflective of the child welfare and criminology literatures, which generally focus on risk.
2.4 Implications and Conclusions

There is little doubt that the relationship between maltreatment and behaviour problems is complex to understand and to address. Examining theories of human development, child maltreatment, developmental psychopathology, and criminal behaviour is necessary in order to capture the complex processes through which maltreatment and behaviour problems are associated, and to determine the best child welfare intervention strategies. The theoretical perspectives reviewed in this paper highlight the many and diverse mechanisms that explain why maltreatment is related to behaviour problems. These heterogeneous and complicated factors make it particularly difficult to understand the magnitude, direction, and significance of the relationship between maltreatment and behaviour problems. It is therefore important but not sufficient to examine single mechanisms at particular levels of the ecological system. Rather, it is critical to integrate both empirical and theoretical knowledge from across disciplines and levels of analysis, ranging from the individual child level to the systemic level. Prevention and intervention efforts must be informed by the understanding of mechanisms at every level of the ecological system that explain the relationship between maltreatment and behaviour problems.

It is critical to consider every level of analysis and insights from across disciplines in order to attain a clear picture of the cumulative risk and protective factors influencing a child. Based on the reviewed theoretical perspectives, it becomes clear that children living in the context of accumulating risk are more likely to experience maltreatment and more likely to develop behaviour problems, and generally suffer more serious consequences for their deviant behaviours because they do not have sufficient buffering or protective resources. While it is not possible for child welfare practitioners to address all of the disadvantages in the lives of vulnerable children, attention to cumulative risk and protective factors is critical for several reasons. Assessing accumulating risk can provide predictive insight into which maltreated children are at greatest risk of developing behaviour problems and experiencing recurrent victimization, allowing child welfare workers to target interventions for the most vulnerable children. Understanding the importance of the accumulation of factors at all ecological levels, child welfare workers can then
facilitate access to services specifically designed to address the multiple complex needs of vulnerable children and families. For instance, child welfare workers can connect families to parent training programs focused on managing difficult child behaviours while also advocating for enhanced supports in the school environment and facilitating access to stable housing and social benefits to reduce family stress.

The theoretical perspectives synthesized in this paper point to several additional intervention strategies. Given the importance of attachments and bonds, it is important that child welfare service providers offer interventions focused on improving the quality of caregiver-child and other family relationships. This focus on relationships should be prominent when working with children and youth of all ages, from infancy to adolescence. Knowledge from attachment theory will help child welfare service providers to support the development of a secure attachment relationship between caregivers and infants and young children. With a focus on relationships, child welfare workers can also help older children and youth by intervening to assist parents in managing difficult child behaviours, resolving conflict, building warm and supportive relationships, and effectively monitoring and supervising young people.

Specific intervention strategies may also be derived based on the reviewed criminological and social-biological theories. Given the importance of developing prosocial capacities, children and youth who have experienced maltreatment may benefit from interventions focused on promoting the acquisition of capacities such as self-regulation, problem solving, and empathy. Interventions focused on fostering positive attachments to institutions like school and work may also be helpful. In line with the theories analyzed in this paper, such interventions may prevent or alleviate behaviour problems among maltreated children and youth. For example, with younger children, child welfare workers can facilitate access to developmental psychologists and liaise with school personnel to ensure adequate support. For older children and youth, child welfare workers can engage with young people to explore future career options and assist in academic planning.

While it is important to apply theory when developing intervention strategies, it is also critical to utilize theory to examine systemic and other issues that impact the ability of child welfare
service providers to effectively meet the complex needs of vulnerable children and families. Research is needed to identify and evaluate the ecological factors that impact the ability of child welfare service providers to effectively intervene in the complex situations in which a child has experienced maltreatment and displays behaviour problems. Addressing system-level issues will support the delivery of effective, theory-driven interventions focused on addressing the complex and multifaceted needs of maltreated children and youth who demonstrate externalizing, antisocial, and criminal behaviours.
3 Chapter 3: Which Maltreated Children are at Greatest Risk of Aggressive and Criminal Behaviour? An Examination of Maltreatment Dimensions and Cumulative Family Risk

3.1 Introduction

The burden of child abuse and neglect extends far beyond victimized children and youth, impacting families, communities, and societies. From infancy to adolescence, the young people who experience maltreatment are at significant risk of physical health, mental health, behavioural, educational, and vocational challenges (Gilbert et al., 2009). Widely studied as a consequence of abuse and neglect, aggressive and criminal behaviours are consistently associated with maltreatment (e.g., Allwood & Widom, 2013; Cullerton-Sen et al., 2008), although the mechanisms explaining this association remain poorly understood, impeding the development of effective targeted interventions. It is critical to understand these mechanisms, in order to provide a foundation to determine which children are at greatest risk for experiencing maltreatment and developing aggressive and criminal behaviours. It is also essential to examine the relationship between maltreatment and behaviour problems in the Canadian context. With most research originating in the United States, there is currently a limited understanding of the prevalence of aggressive and criminal behaviour among maltreated children and youth in Canada, which limits the ability of policymakers and service providers to allocate resources and develop interventions. Analyzing data from a provincially representative study of child welfare investigations, the purpose of this paper is twofold: (1) to determine the extent to which maltreated children and youth served by the child welfare system in Ontario, Canada display aggressive and criminal behaviour, and (2) to understand why maltreatment is related to
aggressive and criminal behaviour for certain young people, by examining various dimensions of maltreatment and cumulative child and family risk.

3.2 Why is Maltreatment Associated with Aggressive and Criminal Behaviour?

3.2.1 Maltreatment Dimensions

The diverse dimensions of abuse and neglect may explain why maltreatment is related to aggressive and criminal behaviours for certain children and youth. As maltreatment experiences are multi-dimensional, varying widely in typology, severity, chronicity, and the subjective interpretations of the experience (English et al., 2005), attention to the various dimensions of maltreatment is critical. Children who are neglected (e.g., Chapple et al., 2005; Grogan-Kaylor & Otis, 2003; Jonson-Reid & Barth, 2000; Lemmon, 1999; Smith et al., 2005; Verrecchia et al., 2010), and children who experience corporal punishment or physical abuse are at risk of displaying externalizing, antisocial, and criminal behaviours (Eckenrode, Izzo, & Smith, 2007; Fagan, 2005; Gershoff, 2002; Grogan-Kaylor et al., 2008; Jaffee et al., 2004; Klika et al., 2012; Lansford et al., 2002; Smith et al., 2005). Other maltreatment typologies, such as emotional abuse (Brown, 1984; Jonson-Reid, 2002) and exposure to intimate partner violence (Eckenrode et al., 2001; Emery, 2011; Moretti, Obsuth, Odgers, & Reebey, 2006) are also associated with aggression and crime. Sexual abuse is less consistently associated with externalizing, antisocial, and criminal behaviour problems, with some studies showing an association (Herrera & McCloskey, 2003; Mallie, Viljoen, Mordell, Spice, & Roesch, 2011; Siegel & Williams, 2003; Woodruff & Lee, 2011) and others finding no relationship (Grogan-Kaylor & Otis, 2003; Jonson-Reid, 2002; Lemmon, 1999).
Young people who exhibit aggressive and criminal behaviours may differ from their counterparts who do not display these behaviours in the severity, co-occurrence, and chronicity of maltreatment they experience. Evidence indicates that more severe (i.e., extreme and injurious) maltreatment is related to higher levels of externalizing, antisocial, and criminal behaviours (Cicchetti et al., 2012; Jackson et al., 2014; Smith & Thornberry, 1995; Verrecchia et al., 2010). Experiencing multiple and co-occurring types of maltreatment simultaneously or sequentially is also associated with a greater likelihood of aggression (Moylan et al., 2010), violent delinquency (Crooks et al., 2007), and entry into the justice system (Jonson-Reid, 2002; Jonson-Reid & Barth, 2000). In addition, chronic or recurrent maltreatment is associated with a greater likelihood of behaviour problems including antisocial behaviour (Cicchetti et al., 2012), substance abuse, criminality, and entry into the justice system (Eckenrode et al., 2001; Hamilton, Falshaw, & Browne, 2002; Jonson-Reid, 2002; Jonson-Reid & Barth, 2000; Ryan & Testa, 2005; Verrecchia et al., 2010). These dimensions of maltreatment are highly complex and interactive, influenced by factors at various ecological levels and impacting outcomes in concert with other variables (English et al., 2005).

3.2.2 Cumulative Child and Family Risk

Another mechanism that might explain why maltreatment is associated with aggressive and criminal behaviour among some young people but not others is cumulative child and family risk. It is well established that a comprehensive examination of the accumulation of risk and disadvantage is essential in order to understand developmental trajectories and outcomes. Emphasized by both ecological and transactional theoretical models, the accumulation and interaction of negative influences at the individual, family, neighbourhood, and societal levels is generally considered more detrimental to child development than any single risk or disadvantage (Sameroff et al., 1998; Scannapieco & Connell-Carrick, 2005; Vondra & Toth, 1989). A cumulative risk perspective underscores that for some children, maltreatment will only play a
role in behaviour problem development in the context of other accumulating risk factors such as internalizing concerns (e.g., depression, anxiety), poverty, parental mental health issues, social isolation, school difficulties, peer rejection, and genetic vulnerability. Likewise, while behaviour problems alone may not put a child at risk of maltreatment, a child with behaviour problems who also lives in the context of accumulating disadvantages may be at increased risk of abuse or neglect.

Research indicates that children and youth who experience maltreatment are at greater risk of developing externalizing behaviours such as aggression and delinquency when they live in the context of other accumulating risks (e.g., low family income and parental mental health issues) (MacKenzie et al., 2011; Tabone et al., 2011). Whereas parental mental health and substance abuse problems are risk factors for externalizing behaviours among young people who have experienced abuse and neglect (Tabone et al., 2011), other caregiving behaviours, such as caregiver monitoring and positive caregiver-child relationships, are protective factors for delinquency (Grogan-Kaylor et al., 2008). Likewise, youth who live in low income families and experience maltreatment in childhood are at higher risk of committing an offence when compared to youth who have been maltreated but do not live in low income families (Bright & Jonson-Reid, 2008; Fagan, 2005). Positive community factors such as support, safety, and cohesion, on the other hand, can mitigate the relationship between maltreatment and behaviour problems (Tabone et al., 2011; Verrecchia et al., 2010). Boys, who exhibit aggression and criminality to a greater extent than girls (Ehrenreich, Beron, Brinkley, & Underwood, 2014; Ellenbogen et al., 2013), tend to be more vulnerable to the cumulative impact of living in poverty and experiencing maltreatment (Bright & Jonson-Reid, 2008).

While attention to risk factors in the child’s environment is necessary, it is also critical to attend to individual child vulnerabilities that can accumulate. Maltreated young people with developmental disabilities, learning disabilities, academic difficulties, substance abuse issues, emotional disturbances, depression, and other mental health problems are more likely to exhibit aggressive and criminal behaviour compared to those without these difficulties (Bright & Jonson-Reid, 2008; Mallett et al., 2009; Postlethwait et al., 2010; Tabone et al., 2011). Indeed, mental health problems have been identified as a potential mechanism explaining the relationship
between maltreatment and aggressive and criminal behaviours; problems such as internalizing
disorders are well-documented consequences of maltreatment and known predictors of
delinquency and crime (Bender, 2010). Although knowledge of the precursors of aggressive and
criminal behaviour in females is less advanced than in males, research suggests internalizing
issues are more strongly associated with delinquent behaviours in girls compared to boys (Pepler,
Jiang, Craig, & Connolly, 2010; Postlethwait et al., 2010).

### 3.3 Present Analysis

Although a great deal of research has established that maltreatment is associated with aggressive
and criminal behaviour, relatively few studies have gone beyond this to explore the mechanisms
explaining this relationship. The present analysis contributes to the literature by examining the
factors that distinguish maltreated young people with aggressive and criminal behaviours from
their maltreated counterparts who do not display such behaviour. The hypothesis that the
association between maltreatment and behaviour problems can be explained by cumulative child
and family risk and the various dimensions of maltreatment is explored using data from the latest
cycle of the Ontario Incidence Study of Reported Child Abuse and Neglect (OIS-2013).

Conducted every five years since 1993, the objective of the OIS is to examine the incidence of
reported child maltreatment and the characteristics of the children and families investigated by
child welfare services in Ontario, Canada. As most research in this area has been conducted in
the United States, the present analysis contributes to the scant Canadian literature and offers
insight into the prevalence of aggressive and criminal behaviours among children and youth who
have experienced maltreatment in Canada.
3.4 Method

The OIS-2013 sample of 5,265 investigations was drawn in three stages: (1) a representative sample of 17 child welfare agencies from across Ontario was selected using simple random sampling; (2) a representative sample of 3,116 family-based cases opened within the participating agencies was selected during a three month period in 2013; and, (3) 5,265 children investigated for a maltreatment-related concern within the family-based cases were identified (Fallon et al., 2015).

Cases included in the OIS-2013 sample met the following selection criteria: the case was screened in for investigation (cases screened out prior to the investigation stage were excluded); the referral included a maltreatment-related allegation (cases opened for reasons other than maltreatment, such as a pregnant woman seeking supportive counseling, were excluded); the case was not receiving services from a child welfare agency at the time of sampling (new referrals on already-open cases were excluded); and, the case represented the first opening for the family in the sampling period (subsequent openings in the sampling period were excluded). Data were collected directly from investigating child welfare workers at the conclusion of their initial investigations using the OIS Maltreatment Assessment Form, a three-page data collection instrument that was used in previous cycles of the study and updated for the OIS-2013 (please see Appendix A, and please see Appendix B for the accompanying guidebook). Researchers offered participating agency staff a training session on how to complete the form and also provided individual support to ensure accurate and timely completion. Forms were verified for completeness and correctness by multiple members of the research team, which promoted an excellent item response rate of over 99 percent complete data on most items. Test re-test reliability of this instrument was assessed, revealing that it had good to excellent reliability, with Kappa ranging from approximately 0.6 to 0.8 on most items (Fallon et al., 2015).

In the present analysis, only substantiated maltreatment investigations involving boys and girls age zero to 15 were included, resulting in a final sample of 1,837 substantiated maltreatment
investigations. That the maltreatment investigations were substantiated underscores that, in the clinical judgment of the worker, the balance of evidence indicated that the child was victimized by abuse and/or neglect. Two weights were applied to OIS data to generate provincial annual estimates: a regionalization weight and an annualization weight, which were developed based on census data and service statistics. When weights were applied to the sample of 1,837 investigations included in this analysis, the total weighted estimated number of substantiated child maltreatment investigations involving children age zero to 15 in Ontario in 2013 was 43,067. Weights were not applied in multivariate analyses.

3.4.1 Measures

3.4.1.1 Aggressive and Criminal Behaviour

The OIS Maltreatment Assessment Form included an index of overall child functioning. Workers used this index to provide an assessment of children’s global level of functioning, or in other words, the child’s ability to function at a developmentally appropriate level. A total of 18 child functioning concerns were assessed, which reflected behaviour problems, developmental concerns, mental health issues, and disabilities. For each domain of functioning assessed, workers indicated whether the concern was confirmed (the concern had been diagnosed, observed by a worker or clinician, or disclosed by a parent or child), suspected (the worker believed the concern may be present but it had not been diagnosed, observed, or disclosed), or not present (the worker had no reason to believe the concern was present). The reference point for the workers was the preceding six months. Workers could also select unknown, reflecting that they did not assess the functioning issue. For the present analysis, the confirmed and suspected categories were collapsed to reflect that a functioning concern was noted. The not
present and unknown categories were collapsed to reflect that a functioning concern was not noted.

The OIS-2013 included two child functioning concerns reflective of aggressive and criminal behaviours. Aggression was defined for participating workers as the use of aggressive behaviour directed at other children or adults (e.g., hitting, kicking, biting, fighting, bullying) or violence to property at home, at school, or in the community. Participating workers documented criminal behaviour if the child had been charged, incarcerated, or dealt alternative measures under the federal Youth Criminal Justice Act.

3.4.1.2 Maltreatment Dimensions

The OIS-2013 measured 32 forms of maltreatment subsumed under five broad categories including physical abuse, sexual abuse, neglect, emotional maltreatment, and exposure to intimate partner violence. Participating workers could provide information on up to three forms of maltreatment that they investigated. Various maltreatment dimensions were measured in the OIS-2013 in addition to maltreatment typology, including co-occurrence (i.e., child experienced multiple forms of substantiated maltreatment, such as physical abuse and neglect); severity (i.e., physical harm to the child was documented during the investigation); frequency (i.e., child experienced multiple incidents of maltreatment versus a single incident); and chronicity (i.e., history of substantiated maltreatment investigation for the child).
3.4.1.3 Cumulative Child and Family Risk

The OIS collected detailed clinical information about child and family risk factors. Risks at the child level were examined using the child functioning index, which includes mental health concerns, developmental difficulties, and school-related problems. Two child risk indices were created for the purpose of this analysis. First, a variable was created reflecting the presence of at least one of the following non-behavioural functioning issues: depression/anxiety/withdrawal, intellectual/developmental disability, attachment issues, and academic difficulties. Second, a variable was created reflecting the total number of child functioning issues noted by the worker, including the non-behavioural issues previously indicated as well as the following concerns: attention deficit hyperactivity disorder (ADHD); running from home; alcohol abuse; and, drug/solvent abuse. In addition to child risks, family risk factors were also examined. For the purpose of the present analysis, several risk factors were combined to create a cumulative family risk index reflecting the number of family-level risks present for a child. The dichotomous family risk variables examined in this analysis reflect the presence or the absence of the risk, and include concerns related to the primary caregiver (mental health issues, substance abuse [drug and/or alcohol abuse], social isolation, history of living in a foster care/group home as a child) as well as household concerns (transience, unsafe housing conditions, poverty [receipt of social assistance and/or insufficient income to meet basic needs]). The total number of existing family risks was summed to create the cumulative family risk measure for this analysis. Child and family risks were selected for inclusion in the indices based on previous research.
3.5 Results

Overall, aggression was identified as a concern in 13% of substantiated maltreatment investigations involving children age zero to 15 in Ontario in 2013 (an estimated 5,318 investigations). When limiting the analysis to only children eligible for involvement in the youth justice system (age 12 to 15), approximately six percent of substantiated investigations identified justice system involvement for the young person (an estimated 609 investigations). Aggressive and criminal behaviours often occurred co-morbidly in adolescents, with the majority of investigations (81%) concerning 12 to 15 year olds who were involved in the youth justice system also identifying aggression.

An exploration of the factors explaining why maltreatment is associated with aggressive and/or criminal behaviours in some children but not others is presented in Table 1 through Table 4. The analyses are conducted separately by the age of the child, using the following age categories: four to seven years, eight to 11 years, and 12 to 15 years. Children age three and under were not examined separately because investigating workers rarely documented aggression for children in this age group.

Table 1 presents a series of bivariate chi-square and t-test analyses examining substantiated investigations involving children age four to seven years, comparing those children who were identified as aggressive to those who were not identified as aggressive. Investigations that identified aggression were significantly more likely to substantiate co-occurring forms of maltreatment, and more likely to ascertain physical harm to the child. Maltreatment typology also varied significantly depending on whether the child displayed aggression. The standardized residuals indicated that children who displayed aggression were more likely to have been physically abused, according to the primary form of maltreatment substantiated by the investigating worker.
Table 1

Comparison of Substantiated Maltreatment Investigations involving Children Age Four to Seven with and without aggression

<table>
<thead>
<tr>
<th>Maltreatment Dimensions</th>
<th>Maltreated children who exhibit aggression</th>
<th>Maltreated children, no aggression</th>
<th>Chi-Square/T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>%^</td>
<td>Estimate</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>444</td>
<td>28</td>
<td>1,454</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>-</td>
<td>-</td>
<td>287</td>
</tr>
<tr>
<td>Neglect</td>
<td>322</td>
<td>20</td>
<td>2,603</td>
</tr>
<tr>
<td>Emotional maltreatment</td>
<td>367</td>
<td>23</td>
<td>1,497</td>
</tr>
<tr>
<td>Exposure to IPV</td>
<td>481</td>
<td>30</td>
<td>5,254</td>
</tr>
<tr>
<td>Co-Occurrence</td>
<td>430</td>
<td>27</td>
<td>1,227</td>
</tr>
<tr>
<td>Severity</td>
<td>159</td>
<td>10</td>
<td>421</td>
</tr>
<tr>
<td>Frequency</td>
<td>1,031</td>
<td>64</td>
<td>6,430</td>
</tr>
<tr>
<td>Chronicity</td>
<td>761</td>
<td>47</td>
<td>4,400</td>
</tr>
</tbody>
</table>

Cumulative Child Risk

<table>
<thead>
<tr>
<th>Maltreatment Dimensions</th>
<th>Maltreated children who exhibit aggression</th>
<th>Maltreated children, no aggression</th>
<th>Chi-Square/T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>%^</td>
<td>Estimate</td>
</tr>
<tr>
<td>Depression/anxiety/withdrawal</td>
<td>483</td>
<td>30</td>
<td>1,077</td>
</tr>
<tr>
<td>Intellectual/dev. disability</td>
<td>493</td>
<td>31</td>
<td>789</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>1,002</td>
<td>62</td>
<td>1,127</td>
</tr>
<tr>
<td>Attachment issues</td>
<td>500</td>
<td>31</td>
<td>720</td>
</tr>
<tr>
<td>ADHD</td>
<td>835</td>
<td>52</td>
<td>681</td>
</tr>
<tr>
<td>At least one non-behavioural issue</td>
<td>1,390</td>
<td>86</td>
<td>3,142</td>
</tr>
<tr>
<td>Mean cumulative child risk score</td>
<td>2.63</td>
<td>0.53</td>
<td>-9.71**</td>
</tr>
</tbody>
</table>

Cumulative Family Risk

<table>
<thead>
<tr>
<th>Maltreatment Dimensions</th>
<th>Maltreated children who exhibit aggression</th>
<th>Maltreated children, no aggression</th>
<th>Chi-Square/T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>%^</td>
<td>Estimate</td>
</tr>
<tr>
<td>Family poverty</td>
<td>953</td>
<td>59</td>
<td>5,779</td>
</tr>
<tr>
<td>Caregiver mental health issues</td>
<td>624</td>
<td>39</td>
<td>2,630</td>
</tr>
<tr>
<td>Caregiver substance abuse</td>
<td>264</td>
<td>16</td>
<td>1,466</td>
</tr>
<tr>
<td>Caregiver social isolation</td>
<td>634</td>
<td>39</td>
<td>3,473</td>
</tr>
<tr>
<td>Caregiver history of foster/group care</td>
<td>-</td>
<td>-</td>
<td>607</td>
</tr>
<tr>
<td>Housing transience</td>
<td>-</td>
<td>-</td>
<td>505</td>
</tr>
<tr>
<td>Unsafe housing conditions</td>
<td>144</td>
<td>9</td>
<td>828</td>
</tr>
<tr>
<td>Mean cumulative family risk score</td>
<td>1.69</td>
<td>1.37</td>
<td>-0.49</td>
</tr>
<tr>
<td>Total</td>
<td>1,613+</td>
<td></td>
<td>11,094+</td>
</tr>
</tbody>
</table>

^Percentages reflect % within aggressive children versus % within non-aggressive children

**Sig at p < .01 level, *Sig at p < .05

--Estimates under 100 are not reported as they are too small to be reliable

+Based on an unweighted sample of 74 investigations involving children with aggression and 467 investigations of children without aggression
As shown in Table 1, investigations involving maltreated children with aggression were more likely to have documented child-level risks, such as depression/anxiety/withdrawal, intellectual/developmental disability, academic difficulties, attachment issues, and ADHD. In 86% of substantiated investigations that established child aggression, at least one non-behavioural child functioning issue (e.g., depression/anxiety/withdrawal) was noted. Whereas a mean of 0.53 cumulative child risks was noted for children who did not display aggression, a mean of 2.63 risks was documented for children who demonstrated aggressive behaviour, a significant difference. However, maltreated children with aggression were no more likely than maltreated children without aggression to live in the context of cumulative family risk, both across most individual risk factors and the cumulative risk scores.

As shown in Table 2, a similar pattern of results is observed when examining children age eight to 11. Again, there are significant differences in maltreatment typologies for children who exhibited aggression. The standardized residuals indicated that investigations in which child aggression was identified were more likely to involve physical abuse as the primary substantiated concern, and less likely to focus primarily on exposure to intimate partner violence. In addition, aggressive children were more likely to have experienced co-occurring forms of substantiated maltreatment, severe maltreatment as evidenced by physical harm, and multiple incidents of maltreatment as opposed to a single incident.

With regards to cumulative child and family risk, investigations involving children age eight to 11 who exhibited aggression were more likely to cite every other child functioning concern. ADHD commonly co-occurred with aggression, with over three quarters (76%) of investigations involving a child with aggression also noting ADHD. Further, as Table 2 presents, 89% of investigations that identified child aggression also noted at least one non-behavioural functioning concern for the child. A mean of 3.13 cumulative child risk factors was documented in investigations involving children with aggression, whereas investigations involving children without aggression noted significantly fewer child risks (mean of 0.89). Similar to the analysis of children age four to seven, children who were aggressive were not more likely than non-aggressive children to live in the context of cumulative family risk.
Table 2

Comparison of Substantiated Maltreatment Investigations involving Children Age Eight to 11 with and without Aggression

<table>
<thead>
<tr>
<th>Maltreatment Dimensions</th>
<th>Maltreated children who exhibit aggression</th>
<th>Maltreated children, no aggression</th>
<th>Chi-Square/T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>Estimate</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td><strong>Primary Typology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical abuse</td>
<td>662</td>
<td>47</td>
<td>1,038</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>-</td>
<td>-</td>
<td>127</td>
</tr>
<tr>
<td>Neglect</td>
<td>302</td>
<td>21</td>
<td>2,139</td>
</tr>
<tr>
<td>Emotional maltreatment</td>
<td>123</td>
<td>9</td>
<td>1,233</td>
</tr>
<tr>
<td>Exposure to IPV</td>
<td>302</td>
<td>21</td>
<td>4,586</td>
</tr>
<tr>
<td>Co-Occurrence</td>
<td>341</td>
<td>24</td>
<td>1,142</td>
</tr>
<tr>
<td>Severity</td>
<td>193</td>
<td>14</td>
<td>321</td>
</tr>
<tr>
<td>Frequency</td>
<td>1,200</td>
<td>84</td>
<td>6,141</td>
</tr>
<tr>
<td>Chronicity</td>
<td>802</td>
<td>56</td>
<td>4,505</td>
</tr>
<tr>
<td><strong>Cumulative Child Risk</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression/anxiety/withdrawal</td>
<td>708</td>
<td>50</td>
<td>1,832</td>
</tr>
<tr>
<td>Intellectual/dev. disability</td>
<td>341</td>
<td>24</td>
<td>846</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>818</td>
<td>57</td>
<td>1,951</td>
</tr>
<tr>
<td>Attachment issues</td>
<td>413</td>
<td>29</td>
<td>906</td>
</tr>
<tr>
<td>ADHD</td>
<td>1,081</td>
<td>76</td>
<td>1,078</td>
</tr>
<tr>
<td>At least one non-behavioural issue</td>
<td>1,261</td>
<td>89</td>
<td>3,669</td>
</tr>
<tr>
<td>Mean cumulative child risk score</td>
<td>3.13</td>
<td>0.89</td>
<td>-9.31**</td>
</tr>
<tr>
<td><strong>Cumulative Family Risk</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family poverty</td>
<td>719</td>
<td>50</td>
<td>4,247</td>
</tr>
<tr>
<td>Caregiver mental health issues</td>
<td>487</td>
<td>34</td>
<td>2,121</td>
</tr>
<tr>
<td>Caregiver substance abuse</td>
<td>338</td>
<td>24</td>
<td>1,408</td>
</tr>
<tr>
<td>Caregiver social isolation</td>
<td>590</td>
<td>41</td>
<td>2,688</td>
</tr>
<tr>
<td>Caregiver history of foster/group care</td>
<td>113</td>
<td>8</td>
<td>290</td>
</tr>
<tr>
<td>Housing transience</td>
<td>-</td>
<td>-</td>
<td>291</td>
</tr>
<tr>
<td>Unsafe housing conditions</td>
<td>174</td>
<td>12</td>
<td>732</td>
</tr>
<tr>
<td>Mean cumulative family risk score</td>
<td>1.75</td>
<td>1.29</td>
<td>-1.93</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,425+</td>
<td>9,124+</td>
<td></td>
</tr>
</tbody>
</table>

^Percentages reflect % within aggressive children versus % within non-aggressive children

**Sig at p <.01 level, *Sig at p<.05 level

--Estimates under 100 are not reported as they are too small to be reliable
+Based on an unweighted sample of 67 investigations involving children with aggression and 392 investigations of children without aggression
Table 3 presents results for substantiated investigations involving youth age 12 to 15 years, comparing investigations that documented aggression to investigations that did not across maltreatment dimensions and cumulative risk. Youth age 12 to 15 who were aggressive were more likely to have endured co-occurring forms of substantiated maltreatment, severe maltreatment as evidenced by physical harm to the child, and chronic maltreatment as indicated by a previous substantiated maltreatment incident. The standardized residuals indicated that significant differences appeared in the primary form of maltreatment substantiated in the investigation. Investigations that identified aggression among 12 to 15 year old youth were more likely to involve physical abuse and neglect as the primary substantiated concern, and less likely to involve exposure to intimate partner violence. In fact, half of all investigations involving 12 to 15 year olds who displayed aggressive behaviour established neglect as the primary substantiated concern. As shown in Table 1 and Table 2, only 20% of investigations involving children age four to seven who demonstrated aggression entailed neglect as the primary substantiated concern, and likewise 21% of investigations that noted aggression for children age eight to 11 involved substantiated neglect.

As shown in Table 3, investigations involving adolescents who displayed aggression were more likely to cite cumulative child risk factors. Almost three-quarters (72%) of investigations involving children age 12 to 15 who exhibited aggression also identified academic difficulties, while over half (64%) noted depression, anxiety, or withdrawal, and almost half noted ADHD (49%) or attachment issues (48%). Overall, almost all (96%) investigations noting aggression for maltreated children age 12 to 15 also documented at least one non-behavioural child functioning issue. Significantly more child risk factors were noted in investigations involving young people with aggression. While cumulative child risk was greater in investigations involving youth with aggression, few significant differences in cumulative family risks appeared between substantiated investigations involving children age 12 to 15 who displayed aggression and investigations involving children of the same age who did not display aggression. However, 12 to 15 year olds who displayed aggression were significantly more likely to live with a primary caregiver with a history of foster care or group home in childhood, and more likely to live in unsafe housing conditions, compared to 12 to 15 year olds who did not display aggression.
Table 3

Comparison of Substantiated Maltreatment Investigations involving Youth Age 12 to 15 with and without Aggression

<table>
<thead>
<tr>
<th>Maltreatment Dimensions</th>
<th>Maltreated youth who exhibit aggression</th>
<th>Maltreated youth, no aggression</th>
<th>Chi-Square/T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>%</td>
<td>Estimate</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>752</td>
<td>34</td>
<td>959</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>-</td>
<td>-</td>
<td>342</td>
</tr>
<tr>
<td>Neglect</td>
<td>1,083</td>
<td>50</td>
<td>1,639</td>
</tr>
<tr>
<td>Emotional maltreatment</td>
<td>-</td>
<td>-</td>
<td>1,353</td>
</tr>
<tr>
<td>Exposure to IPV</td>
<td>255</td>
<td>12</td>
<td>3,934</td>
</tr>
<tr>
<td>Co-Occurrence</td>
<td>579</td>
<td>27</td>
<td>1,249</td>
</tr>
<tr>
<td>Severity</td>
<td>295</td>
<td>14</td>
<td>447</td>
</tr>
<tr>
<td>Frequency</td>
<td>1,113</td>
<td>51</td>
<td>4,837</td>
</tr>
<tr>
<td>Chronicity</td>
<td>1,338</td>
<td>61</td>
<td>3,947</td>
</tr>
<tr>
<td>Cumulative Child Risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression/anxiety/withdrawal</td>
<td>1,400</td>
<td>64</td>
<td>2,487</td>
</tr>
<tr>
<td>Intellectual/dev. disability</td>
<td>659</td>
<td>30</td>
<td>963</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>1,581</td>
<td>72</td>
<td>1,727</td>
</tr>
<tr>
<td>Attachment issues</td>
<td>1,045</td>
<td>48</td>
<td>1,103</td>
</tr>
<tr>
<td>ADHD</td>
<td>1,065</td>
<td>49</td>
<td>828</td>
</tr>
<tr>
<td>Running</td>
<td>530</td>
<td>24</td>
<td>189</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>312</td>
<td>14</td>
<td>183</td>
</tr>
<tr>
<td>Drug/solvent abuse</td>
<td>655</td>
<td>30</td>
<td>406</td>
</tr>
<tr>
<td>At least one non-behavioural issue</td>
<td>2,088</td>
<td>96</td>
<td>3,753</td>
</tr>
<tr>
<td>Mean cumulative child risk score</td>
<td>4.64</td>
<td>1.25</td>
<td>-9.87**</td>
</tr>
<tr>
<td>Cumulative Family Risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family poverty</td>
<td>962</td>
<td>44</td>
<td>3,305</td>
</tr>
<tr>
<td>Caregiver mental health issues</td>
<td>730</td>
<td>33</td>
<td>2,205</td>
</tr>
<tr>
<td>Caregiver substance abuse</td>
<td>220</td>
<td>10</td>
<td>780</td>
</tr>
<tr>
<td>Caregiver social isolation</td>
<td>821</td>
<td>38</td>
<td>2,374</td>
</tr>
<tr>
<td>Caregiver history of foster/group care</td>
<td>185</td>
<td>9</td>
<td>159</td>
</tr>
<tr>
<td>Housing transience</td>
<td>-</td>
<td>-</td>
<td>281</td>
</tr>
<tr>
<td>Unsafe housing conditions</td>
<td>246</td>
<td>12</td>
<td>353</td>
</tr>
<tr>
<td>Mean cumulative family risk score</td>
<td>1.49</td>
<td>1.15</td>
<td>-2.37</td>
</tr>
<tr>
<td>Total</td>
<td>2,183+</td>
<td>8,226+</td>
<td></td>
</tr>
</tbody>
</table>

^Percentages reflect % within aggressive youth versus % within non-aggressive youth
**Sig at p <.01 level, *Sig at p<.05
--Estimates under 100 are not reported as they are too small to be reliable
+Based on an unweighted sample of 99 investigations involving youth with aggression and 347 investigations of youth without aggression
Table 4 presents a comparison of maltreated youth age 12 to 15 who were involved with the youth justice system and maltreated young people in the same age range who were not involved in the justice system. A slightly different pattern emerges compared to previous analyses presented in Tables 1, 2, and 3. While the primary substantiated maltreated typology differed significantly when comparing investigations that identified youth criminal justice system involvement to investigations that did not note this involvement, other dimensions of maltreatment experiences did not differ across these two types of investigations. The majority (71%) of investigations concerning children with justice system involvement focused on neglect, while approximately 17% focused on physical abuse. Very few investigations involving these young people focused on emotional maltreatment, sexual abuse, or exposure to intimate partner violence.

Similar to the analyses presented in Tables 1, 2, and 3, Table 4 indicates that investigations concerning adolescents involved in the youth justice system were more likely to cite all of the child-level risk factors included in this analysis, with the exception of alcohol abuse as the estimates were too small to be reliable on this variable. The most common child risks to co-occur with youth justice system involvement include academic difficulties (85% of investigations that noted justice system involvement also noted academic difficulties for the child), aggression (81%), and depression, anxiety, and/or withdrawal (72%). Few significant differences in cumulative family risk appeared when comparing investigations of youth who were involved in the justice system and investigations of youth who were not involved in the justice system.
Table 4

Comparison of Substantiated Maltreatment Investigations involving Youth Age 12 to 15 with and without Justice System Involvement

<table>
<thead>
<tr>
<th>Maltreatment Dimensions</th>
<th>Maltreated youth involved in justice system</th>
<th>Maltreated youth, not involved in justice system</th>
<th>Estimate</th>
<th>%^</th>
<th>Estimate</th>
<th>%</th>
<th>Chi-Square/T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical abuse</td>
<td>105</td>
<td>1,606</td>
<td>17</td>
<td>16</td>
<td>305</td>
<td>3</td>
<td>32.33**</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>-</td>
<td>305</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Neglect</td>
<td>429</td>
<td>2,293</td>
<td>71</td>
<td>23</td>
<td>305</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Emotional maltreatment</td>
<td>-</td>
<td>1,434</td>
<td>-</td>
<td>15</td>
<td>1,806</td>
<td>16</td>
<td>-</td>
</tr>
<tr>
<td>Exposure to IPV</td>
<td>-</td>
<td>4,163</td>
<td>-</td>
<td>43</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Co-Occurrence</td>
<td>-</td>
<td>1,747</td>
<td>-</td>
<td>18</td>
<td>-</td>
<td>-</td>
<td>0.54</td>
</tr>
<tr>
<td>Severity</td>
<td>-</td>
<td>674</td>
<td>-</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>0.84</td>
</tr>
<tr>
<td>Frequency</td>
<td>305</td>
<td>5,645</td>
<td>50</td>
<td>58</td>
<td>4,888</td>
<td>50</td>
<td>2.35</td>
</tr>
<tr>
<td>Chronicity</td>
<td>397</td>
<td>4,888</td>
<td>65</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Cumulative Child Risk

<table>
<thead>
<tr>
<th>Maltreatment Dimensions</th>
<th>Estimate</th>
<th>%</th>
<th>Estimate</th>
<th>%</th>
<th>Chi-Square/T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression/anxiety/withdrawal</td>
<td>436</td>
<td>72</td>
<td>3,452</td>
<td>35</td>
<td>13.65**</td>
</tr>
<tr>
<td>Intellectual/dev. disability</td>
<td>235</td>
<td>39</td>
<td>1,387</td>
<td>14</td>
<td>11.09**</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>517</td>
<td>85</td>
<td>2,790</td>
<td>29</td>
<td>35.68**</td>
</tr>
<tr>
<td>Attachment issues</td>
<td>250</td>
<td>41</td>
<td>1,898</td>
<td>19</td>
<td>7.79**</td>
</tr>
<tr>
<td>ADHD</td>
<td>362</td>
<td>60</td>
<td>1,531</td>
<td>16</td>
<td>31.47**</td>
</tr>
<tr>
<td>Running</td>
<td>154</td>
<td>25</td>
<td>565</td>
<td>6</td>
<td>12.18**</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>-</td>
<td>-</td>
<td>415</td>
<td>4</td>
<td>3.33</td>
</tr>
<tr>
<td>Drug/solvent abuse</td>
<td>170</td>
<td>28</td>
<td>890</td>
<td>9</td>
<td>9.37**</td>
</tr>
<tr>
<td>Aggression</td>
<td>492</td>
<td>81</td>
<td>1,691</td>
<td>17</td>
<td>59.50**</td>
</tr>
<tr>
<td>At least one non-behavioural issue</td>
<td>597</td>
<td>98</td>
<td>5,244</td>
<td>54</td>
<td>18.04**</td>
</tr>
<tr>
<td>Mean cumulative child risk score</td>
<td>5.42</td>
<td>1.75</td>
<td>-6.32**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cumulative Family Risk

<table>
<thead>
<tr>
<th>Maltreatment Dimensions</th>
<th>Estimate</th>
<th>%</th>
<th>Estimate</th>
<th>%</th>
<th>Chi-Square/T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family poverty</td>
<td>128</td>
<td>21</td>
<td>4,139</td>
<td>42</td>
<td>4.82*</td>
</tr>
<tr>
<td>Caregiver mental health issues</td>
<td>166</td>
<td>27</td>
<td>2,768</td>
<td>28</td>
<td>0.02</td>
</tr>
<tr>
<td>Caregiver substance abuse</td>
<td>103</td>
<td>17</td>
<td>897</td>
<td>9</td>
<td>1.25</td>
</tr>
<tr>
<td>Caregiver social isolation</td>
<td>110</td>
<td>18</td>
<td>3,085</td>
<td>32</td>
<td>1.74</td>
</tr>
<tr>
<td>Caregiver history of foster/group care</td>
<td>-</td>
<td>-</td>
<td>291</td>
<td>3</td>
<td>1.97</td>
</tr>
<tr>
<td>Housing transience</td>
<td>-</td>
<td>-</td>
<td>362</td>
<td>4</td>
<td>1.00</td>
</tr>
<tr>
<td>Unsafe housing conditions</td>
<td>-</td>
<td>-</td>
<td>546</td>
<td>6</td>
<td>0.23</td>
</tr>
<tr>
<td>Mean cumulative family risk score</td>
<td>1.01</td>
<td>1.23</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total                                             | 609+     | 9,801+| 1.01     |

^Percentages reflect % within youth in justice system versus % within youth not involved in justice system

**Sig at p <.01 level, *Sig at p<.05 level

--Estimates under 100 are not reported as they are too small to be reliable

+Based on an unweighted sample of 22 investigations concerning youth involved in the justice system and 424 investigations of youth without justice system involvement
In order to further understand the large proportion of investigations involving 12 to 15 year olds with aggression and/or youth justice system involvement that focused on neglect, further analyses were conducted of specific neglect subtypes. Among this age group, an estimated 2,719 investigations involved substantiated neglect. The most common subtype of neglect investigated and substantiated for young people demonstrating aggression was abandonment (an estimated 478 investigations, 44% of all neglect investigations involving a 12 to 15 year old with aggression). Abandonment refers to situations in which a child’s parent is unable to exercise custodial rights and has not made adequate provisions for the care and custody of the child; the parent therefore is not willing or able to remain the primary caregiver. Likewise, almost half (48%) of all neglect investigations involving 12 to 15 year olds with justice system involvement focused on abandonment (an estimated 206 investigations). Several logistic regressions were then conducted, in which the outcome was a dichotomous variable created to reflect the presence or absence of substantiated abandonment (i.e., abandonment is the primary substantiated concern versus any other form of maltreatment). There is a dearth of research on the causes of abandonment of adolescents, and therefore predictors were selected based on theoretical importance of understanding situations in which a caregiver is no longer able or willing to care for a child. The final model presented in Table 5 includes both aggression and justice system involvement as predictors; although these variables are highly correlated, the models including each predictor individually were similar to the model including both. As shown in Table 5, the most significant predictors of abandonment include a previous substantiated maltreatment investigation (OR=1.69, p=.02), aggression (OR=4.58, p<.001), and justice system involvement (OR=7.00, p<.001).
Table 5

*Logistic Regression Predicting Abandonment in Substantiated Investigations involving Adolescents Age 12 to 15*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>$b$</th>
<th>SE</th>
<th>OR</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maltreatment Chronicity</td>
<td>0.53</td>
<td>0.23</td>
<td>1.69</td>
<td>0.02</td>
</tr>
<tr>
<td>Caregiver mental health issues</td>
<td>-0.16</td>
<td>0.28</td>
<td>0.86</td>
<td>0.57</td>
</tr>
<tr>
<td>Caregiver substance abuse</td>
<td>0.50</td>
<td>0.29</td>
<td>1.65</td>
<td>0.08</td>
</tr>
<tr>
<td>Caregiver social isolation</td>
<td>-0.01</td>
<td>0.27</td>
<td>0.99</td>
<td>0.97</td>
</tr>
<tr>
<td>Housing transience</td>
<td>0.58</td>
<td>0.42</td>
<td>1.78</td>
<td>0.17</td>
</tr>
<tr>
<td>Insufficient family income</td>
<td>0.24</td>
<td>0.35</td>
<td>1.27</td>
<td>0.49</td>
</tr>
<tr>
<td>Aggression</td>
<td>1.52</td>
<td>0.25</td>
<td>4.58</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Justice system involvement</td>
<td>1.95</td>
<td>0.40</td>
<td>7.00</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Model $\chi^2$</td>
<td>87.29</td>
<td>772.22</td>
<td>0.11</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

*Nagelkerke R square used
+Analysis conducted using an unweighted sample of 446 adolescents involved in substantiated maltreatment investigations

3.6 Discussion

Recognizing the diverse maltreatment experiences of children and youth, this study offers insight into the mechanisms that explain why some maltreated children exhibit aggressive and criminal behaviours whereas others do not, focusing on maltreatment dimensions and cumulative child and family risk. This study also increases knowledge of the extent to which children investigated by child welfare services in Canada display aggressive and/or criminal behaviour. Three key findings emerged from the analysis: (1) a substantial minority of maltreated children and youth demonstrate aggressive and/or criminal behaviour; (2) this subgroup is distinct from other maltreated children; they suffer from co-morbid mental health and developmental issues such as depression and learning disabilities, and have endured qualitatively different maltreatment
experiences; and (3) in adolescence, the most common reason for this subgroup to come into contact with the child welfare system is abandonment, a subtype of neglect. The study is unique in its analysis of a representative sample of child welfare investigations conducted across the province of Ontario, therefore enhancing current understanding of the relationship between maltreatment and behaviour problems in the Canadian context.

3.6.1 Aggressive and Criminal Behaviour in Ontario Child Welfare-Involved Population

Child welfare workers identified aggression in approximately 13% of substantiated investigations involving children age zero to 15, whereby the child displayed overt aggressive behaviour directed at other children or adults, or violence to property at home, at school, or in the community. Approximately six percent of substantiated investigations concerning early adolescents age 12 to 15 identified that the young person was charged, incarcerated, or dealt alternative measures under federal youth justice legislation. These findings show that children and youth involved with the child welfare system display aggressive and criminal behaviours to a considerably greater extent than the general population. Estimates of aggression in the general population of Canadian children range from under one percent to approximately four percent (Lee, Baillargeon, Vermunt, Wu, & Tremblay, 2007), while youth crime rates indicate that approximately 7,000 per 100,000 young people in Canada are charged each year under the Youth Criminal Justice Act, or in other words, less than one percent of the youth population becomes involved in the justice system (Carrington, 2013).

The finding that maltreated children served by the child welfare system exhibit aggressive and/or criminal behaviour to a greater extent than young people in the general population is consistent with other theoretical and research literature. Children and youth who are maltreated are more likely to engage in aggressive, violent, and criminal behaviour across their life course (Allwood
& Widom, 2013; Brezina, 1998; Chapple et al., 2005; Crooks et al., 2007; Elklit, Karstoft, Armour, Feddern, & Christoffersen, 2013; Smith & Thornberry, 1995; Yun, Ball, & Lim, 2011). Conversely, behaviour problems can precede maltreatment (Stouthamer-Loeber et al., 2001), eliciting angry, harsh, or inconsistent responses from parents (Fite, Colder, Lochman, & Wells, 2006; Patterson, 1982; Verhoeven, Junger, van Aken, van Aken, & Dekovic, 2010) as well as decreased parental support and control (Huh, Tristan, Wade, & Stice, 2006). Indeed, transactional models predict that difficult child behaviours will be reciprocally related to harsh parental response patterns, due to parental stress and poor coping skills (Bugental et al., 1989; Bugental, 2009; Patterson, 1982). Intervening to interrupt problematic reciprocal patterns of interaction between caregivers and children is essential in order to prevent the escalation of abusive and neglectful behaviours among caregivers and of difficult, aggressive, and criminal behaviours among children (Simmel, 2010).

3.6.2 Maltreatment Dimensions

Maltreated children and youth who exhibit aggressive and/or criminal behaviours sustain qualitatively different maltreatment experiences than their non-aggressive, non-criminal counterparts. Not only do aggressive children and youth struggle with co-morbid mental health and developmental difficulties, they are also more likely to endure co-occurring forms of maltreatment (e.g., physical abuse and neglect) and severe maltreatment causing physical harm. This pattern was observed among aggressive children across all age groups, and is consistent with other research, which finds that children who experience co-occurring forms of maltreatment (Crooks et al., 2007; Jonson-Reid, 2002; Jonson-Reid & Barth, 2000; Moylan et al., 2010) and more extreme and injurious forms of maltreatment (Cicchetti et al., 2012; Jackson et al., 2014; Smith & Thornberry, 1995; Verrecchia et al., 2010) are more likely to display externalizing, antisocial, and/or criminal behaviours. While existing research has primarily viewed maltreatment dimensions as predictors of developmental outcomes such as behaviour
problems, it must also be recognized that children who exhibit aggressive and/or criminal behaviours may be at greater risk of severe, co-occurring forms of maltreatment. Regardless of the direction of the relationship, it is crucial that researchers and child welfare practitioners alike attend to the severity, co-occurrence, frequency, and chronicity of maltreatment. Addressing these diverse dimensions of maltreatment acknowledges the heterogeneity of young people’s experiences, and can help identify young people at greatest risk for poor outcomes and inform interventions targeted at high-needs families.

Children and youth who display aggressive behaviour were more likely than their non-aggressive counterparts to be physically abused. Aggression and other behavior problems are some of the most well documented consequences of physical abuse (Eckenrode et al., 2007; Fagan, 2005; Grogan-Kaylor et al., 2008). Indeed, evidence indicates that physical abuse plays a causal role in the development of antisocial behaviour (Jaffee et al., 2004). Social learning theories predict that a caregiver who uses physical or psychological control for discipline will model aggression and coercion. A consequence may be that the child embodies such patterns of relating and in turn displays increased antisocial behaviour (Herrenkohl et al., 2003; Hoffmann, 2011). Early physical abuse also impacts how children process social information, which leads to these children being less attentive to social cues, more likely to attribute hostile intentions to others, and less skilled at problem solving, all of which are patterns that contribute to aggressive behaviour (Dodge et al., 1990; Dodge, 2006). Other research points to a reciprocal relationship between physical and emotional abuse and externalizing and antisocial behaviours in early childhood (Caspi et al., 2004; Gromoske & Maguire-Jack, 2012), particularly among families living in the context of greater cumulative ecological risk (MacKenzie, Nicklas, Brooks-Gunn, & Waldfogel, 2014). These findings emphasize the importance of child welfare services addressing both parental and child factors in order to disrupt problematic family relationships and prevent escalating maltreatment and behaviour problems.

Adolescents who displayed aggressive and/or criminal behaviours were most likely to come into contact with the child welfare system due to neglect. Closer analysis of the subtypes of neglect revealed that the most common subtype investigated and substantiated for youth with aggression and/or justice system involvement was abandonment. Even after controlling for other variables,
adolescents identified as aggressive were over four times as likely as their non-aggressive counterparts to experience abandonment, and youth involved in the justice system were seven times as likely to be abandoned when compared to young people not involved in the justice system. Abandonment, a subtype of neglect, refers to situations in which a young person’s parent or guardian is no longer willing or able to remain in a caregiving role. Already exhibiting behaviour problems and co-morbid mental health and developmental problems, these children’s difficulties are undoubtedly amplified by being abandoned as are their feelings of guilt, shame, and self-blame (Kerker & Dore, 2006). An attachment perspective illuminates that abandonment is experienced as a powerful rejection with far-reaching consequences, including rage, anger, deep hurt, sadness, hostility, and anxiety – further barriers to their ability to form positive or secure attachments for fear of being abandoned again (Gauthier et al., 2004; Tucker & MacKenzie, 2012). Young people who are abandoned lose more than their caregivers; they also lose the familiar people, places, and things that are so important to their daily experiences (Donohue, Bradley-King, & Cahalane, 2013). In addition, abandonment can make adolescents vulnerable to involvement in high risk situations including homelessness, which is associated with severe mental health problems, substance abuse, involvement in the sex trade, and physical health issues including HIV/AIDS and other sexually transmitted infections (Thompson, Bender, Windsor, Cook, & Williams, 2010). Moreover, approximately half of young people who are incarcerated have been abandoned or deserted by a parent (Belknap & Holsinger, 2006).

Abandonment in adolescence likely results from the accumulation of risks in the lives of youth and their families, including the escalation of maltreatment, behavioural challenges, and other child risks such as internalizing issues and developmental difficulties. It is critical to provide interventions and supports to families early in the child’s life in order to prevent problematic patterns from escalating and to prevent risks from accumulating. The Nurse-Family Partnership, for example, is a theory-driven prenatal and infancy home-visiting program that has been shown to effectively attenuate the association between maltreatment and adolescent problems such as substance abuse, criminal justice system involvement, and early sexual intercourse, primarily through reducing the prevalence of multiple types and chronic forms of maltreatment (Eckenrode et al., 2001; Olds, 2008). Other early interventions show promise in reducing recurrent maltreatment, addressing externalizing behavioural difficulties, improving parent-child
interactions, and reducing parenting stress, such as Parent-Child Interaction Therapy and the Incredible Years Program (MacMillan et al., 2009; Pecora et al., 2014; Thomas & Zimmer-Gembeck, 2012).

Once they reach adolescence, the vulnerable children who face multiple adversities and cumulative risks require effective interventions, particularly those high risk youth who are abandoned by their caregivers and struggle with co-morbid mental health problems in addition to aggressive and criminal behaviours. While infancy and early childhood are typically considered a time of vulnerability to maltreatment, adolescence is another stage of development at which young people are particularly vulnerable (Wulczyn, 2009). Adolescence is a period of developmental change and transition, which can bring with it parent-child conflict and family turmoil, particularly for young people who have experienced disruptions in development, and for parents who struggle with deficits and challenges that compromise their caregiving skills (Garbarino & Kelly, 1986; Scannapieco & Connell-Carrick, 2005; Simmel, 2010). There is scarce evidence of effective interventions that address the psychosocial well-being and mental health of adolescents, which impedes policy development and service planning (World Health Organization, 2012). Most existing interventions focused on improving family relationships are directed toward younger children who have experienced maltreatment, with fewer interventions for older children and adolescents (Toth, Gravener-Davis, Guild, & Cicchetti, 2013). This is particularly concerning as some adolescents who come into contact with the child welfare system are coping with recent events of abuse and neglect while also struggling with the effects of cumulative adversities throughout their childhood, including historical maltreatment (Eckenrode, Izzo, & Smith, 2007). Maltreated adolescents who display aggressive and criminal behaviours are particularly vulnerable, with research indicating that adolescents involved in delinquent behaviour are more likely to continue this criminal behaviour into adulthood (DeGue & Widom, 2009) and are at a higher risk of criminal recidivism compared to those with no current involvement in the child welfare system (Ryan et al., 2013). Indeed, this analysis of a province-wide study demonstrates that maltreated youth are involved with the justice system to a considerably greater extent than the general population of adolescents. This finding and others underscore the urgent need to develop effective interventions for adolescents involved with the child welfare system, particularly for those who are abandoned by their caregivers.
Consistent with ecological and transactional models, a striking finding of this study is the degree to which maltreated children and youth who display aggressive and/or criminal behaviour face accumulating risks at the child level, in that they struggle with co-morbid mental health and developmental issues that impact their functioning. It is well recognized that children who come into contact with the child welfare system exhibit elevated levels of clinically significant mental health issues (Burns et al., 2004). Young people who engage in aggressive and/or criminal behaviour and experience maltreatment, however, are a particularly high-need subgroup of the population served by the child welfare system. These children and youth are faced with a layering of cumulative risk factors in their lives. In addition to experiencing maltreatment, they display aggressive and/or criminal behaviour problems, have difficulty in school, suffer from internalizing issues, and/or display developmental delays or disabilities.

While in this study, adolescents were more likely to exhibit these co-morbidities, even young children age four to seven who displayed aggression were more likely to suffer from depression, anxiety, or withdrawal, ADHD, intellectual or developmental disabilities, attachment issues, and academic difficulties. Effective early interventions for these vulnerable young children with aggression and co-morbid problems are critical, as the difference in co-morbidities between children with and without behaviour problems appears to only increase with age. This is consistent with other research findings whereby young people who experience a layering of cumulative risk factors are more likely to follow trajectories characterized by severe and complex behaviour problems, including high levels of aggressive and criminal behaviours (Mallett, 2014; Salom et al., 2014; Tabone et al., 2011). Young people who experience this layering of risk factors and stressors, such as mental health difficulties, maltreatment, early antisocial behaviours, and learning difficulties, are at increased risk for poor outcomes across the life course, including incarceration and perpetrating child maltreatment as adults (Abram, Teplin,
McClelland, & Dulcan, 2003; Belknap & Holsinger, 2006; Thornberry et al., 2014). Although early intervention is key, it is essential that child welfare workers be equipped with effective strategies for addressing the severe and significant cumulative individual risks among adolescents who exhibit aggressive and criminal behaviour. Only a small proportion of children and youth who have high mental health needs receive any mental health services after coming into contact with the child welfare system (Burns et al., 2004), highlighting the critical need for improved service delivery for adolescents with multiple needs.

Unlike previous research (e.g., MacKenzie et al., 2011) and inconsistent with ecological and transactional models of human development (e.g., Cicchetti & Lynch, 1993; Sameroff, 2009), few differences appeared when comparing the cumulative family risk profiles of maltreated young people who exhibited aggressive and/or criminal behaviour and those who did not. This unexpected finding may be explained in various ways. As MacKenzie and colleagues’ (2011) study demonstrates, the effects of accumulative disadvantage can be long lasting over the course of childhood. Perhaps the effects of maltreatment tend to be more proximal, which is consistent with the findings of the present cross-sectional analysis that demonstrated a strong relationship between the dimensions of maltreatment and behaviour problems. In addition, it was not possible to determine the intensity of each of the family risk factors examined. While creating a cumulative risk metric based on a count of the number of family risks has several benefits, examining risk in this way results in a loss of information about the intensity of each factor (Evans, Whipple, & Li, 2013). For example, a caregiver with serious and debilitating schizophrenia and few other risk factors may present a greater threat to child development than a caregiver with an adequately managed anxiety disorder, suboptimal social supports, and a moderate alcohol problem. Information on the intensity of family risk factors and on whether the risk was enduring or transient was unavailable in the OIS. Further, the OIS only collected information that child welfare workers routinely gathered as part of their initial investigations, and therefore many of the complex risk and protective factors influencing developmental trajectories were not captured, such as neighbourhood characteristics and genetic factors.
3.7 Limitations

Several limitations are important to consider when interpreting the findings of the present analyses. Information was collected from participating child welfare workers at the conclusion of their initial investigations, which usually last between 30 and 60 days. It is possible that workers were unable to fully assess children’s behavioural functioning in that initial investigation period, particularly given that the primary concern during the initial investigation is often to determine the immediate needs of the family. It is also important to note that the OIS is based on the assessments provided by the investigating child welfare workers. As these assessments were not verified, an independent source did not confirm the workers’ assessments of child functioning. Finally, the present analyses are limited by the cross-sectional nature of the OIS, as longitudinal research is most beneficial to understanding the early origins of maltreatment and externalizing, antisocial, and criminal behaviour problems, as well as the complex and likely reciprocal relationship between these two phenomena.

3.8 Conclusions

This analysis provides insight into the factors differentiating maltreated young people who exhibit aggressive and criminal behaviours from those who do not. Maltreated children and youth who display aggressive and criminal behaviour are a unique and high-needs subpopulation served by the child welfare system who have endured severe experiences of maltreatment and struggle with intensive child-level risks including co-morbid mental health problems. The distinct vulnerabilities of these children are apparent from the young age of four years, and appear to only grow more powerful over time. Adolescents who exhibit aggressive and criminal
behaviours not only have a greater number of cumulative child-level risks but are also at greater risk of being abandoned by their caregivers. Abandonment by caregivers likely serves to damage already disturbed attachments to family, and according to several prominent criminological theories including the life course perspective (Laub & Sampson, 1993), criminal actions will persist and worsen when an individual’s bond to family and social institutions deteriorates. Preventing abandonment is critical and challenging. More research is needed to fully understand the factors associated with adolescent abandonment, and to develop effective prevention and intervention strategies. Services and programs that improve the mental health and behavioural concerns of developing children and youth, and interventions that successfully prevent recurrent and severe maltreatment may contribute to the prevention of situations in which a caregiver is no longer able or willing to care for a vulnerable adolescent.

So, which maltreated children and youth are at greatest risk of aggressive and criminal behaviour? These findings suggest that young people who have experienced frequent, chronic, severe and co-occurring forms of maltreatment, and who have internalizing issues, developmental disabilities, attachment disturbances, and learning challenges are at greatest risk of exhibiting aggressive and criminal behaviour. These intensive and complex needs demand a comprehensive response by the child welfare system in coordination with other mental health, legal, and social service providers, with a dual focus on early intervention for young children showing signs of aggression and later intervention for adolescents who are at risk of abandonment.
4 Chapter 4: Child Welfare Service Responses to Maltreated Children and Youth with Aggressive and Criminal Behaviour Problems in Ontario, Canada

4.1 Introduction

Aggressive and criminal behaviours violate social norms and rules, harming others and generating significant social and economic costs (Biglan et al., 2004; Cohen & Piquero, 2009; Keenan, 2001). As these behaviours tend to be observable, disruptive and detrimental to others, children and youth exhibiting aggressive and criminal behaviour will likely be identified as needing intervention; however, which service systems identify and serve the problems of these children and youth, and which services are provided, are poorly understood issues (Burns et al., 2001). Child welfare agencies are uniquely positioned to provide services to children and youth who have experienced maltreatment, a population at significant risk of exhibiting externalizing, antisocial, and criminal behaviours (e.g., Allwood & Widom, 2013; Crooks et al., 2007) as well as a myriad of other mental health and developmental difficulties (Cicchetti & Toth, 2005). Approximately one in five young people served by the child welfare system demonstrates aggression (Ellenbogen et al., 2013), with estimates of behaviour problems among children and youth entering out-of-home child welfare care closer to 50% (Keil & Price, 2006).

Child welfare service providers are in a position whereby they can play a vital role in preventing and alleviating aggressive and criminal behaviour among young people who have experienced maltreatment. Drawing on the concept of turning points highlighted by the life course perspective of crime (Laub & Sampson, 2001), contact with the child welfare system can be viewed as an important turning point for young people who have been abused or neglected.
Involvement in the child welfare system may allow for early identification of emerging aggressive behaviours that signal a risk of progressively severe and serious concerns including violent crime (Dishion et al., 2010; Hann & Borek, 2001; Rogosch et al., 2010; Thompson et al., 2011). Upon identification, child welfare services can be instrumental in children and youth accessing timely resources to address emerging and more advanced aggressive and criminal behaviours, and the other harms associated with maltreatment (Jonson-Reid, 2004). Child welfare service providers can also engage in secondary prevention by intervening to reduce the likelihood of future abuse and neglect, as there is a stronger association between more severe, enduring experiences of maltreatment and externalizing, antisocial, and criminal behaviour problems (Cicchetti et al., 2012; Eckenrode et al., 2001; Jonson-Reid, 2004).

Contact with the child welfare system can also represent a negative turning point in certain circumstances, exacerbating aggressive and criminal behaviours among some young people. Researchers have considered this possibility, focusing particularly on placement services. While out-of-home placement may provide children and youth with immediate safety and opportunities to develop new bonds with caring adults, it can be highly stressful and disruptive for vulnerable young people (Berger et al., 2009). Removing children from their families of origin may be the only feasible option in certain circumstances (Esposito et al., 2013), yet children and youth who enter out-of-home care with externalizing behaviours are less likely to experience a successful and stable placement, and more likely to be placed in restrictive non-family based settings, which can threaten their well-being and exacerbate behavioural challenges (Aarons et al., 2010; Chamberlain et al., 2006; DeGue & Widom, 2009; Fisher, Mannering, Van Scoyoc, & Graham, 2013; James et al., 2006; Newton et al., 2000; Rubin et al., 2007; Ryan et al., 2008). Placement decisions for maltreated young people exhibiting aggressive and criminal behaviour, therefore, have serious implications for child health and well-being.

In these ways, child welfare services can alleviate or exacerbate aggressive and criminal behaviours among maltreated young people. Although these services are clearly consequential, it is unclear what types of services are provided to maltreated children and youth who display aggressive and criminal behaviours, creating challenges in determining whether child welfare service providers are best meeting their needs. The present study contributes to the existing
literature by comparing service provision for maltreated children and youth who exhibit aggressive and/or criminal behaviours to those who do not, focusing on three key services commonly offered following a child welfare investigation: referrals to specialized service providers; ongoing child welfare service provision; and out-of-home placement. Analyzing data from a large-scale representative study of child welfare investigations, this paper provides insight into how child welfare service providers respond to maltreated young people exhibiting aggressive and criminal behaviours compared to children and youth who have been maltreated but do not exhibit these behaviours.

4.2 Who Receives What Types of Child Welfare Services?

The goals of most child welfare systems include protecting children and adolescents from harm and responding to the needs of young people who have experienced maltreatment (Kamerman & Gatenio-Gabel, 2014). Child welfare agencies typically offer a spectrum of services, including ongoing child welfare services beyond the initial investigation. Ongoing child welfare services include case management focused on assessing and monitoring child safety and well-being, developing goals for improving family relationships and reducing risks to children and youth, safety planning, coordinating interventions with service providers in other sectors, and consistently evaluating family progress (Commission to Promote Sustainable Child Welfare, 2012a; DePanfilis & Hayward, 2006). Certain children and families are more likely to receive ongoing child welfare services following the initial investigation, including families who regularly run out of money for basic necessities and experience social isolation, and young people who have experienced sexual abuse, neglect, emotional maltreatment, and/or exposure to intimate partner violence, or who are at risk of future maltreatment (Jud, Fallon, & Trocmé, 2012). Adolescents are more likely than younger children to receive ongoing child welfare services following an initial investigation, with youth suffering from internalizing issues particularly likely to receive these services (Fast, Trocmé, Fallon, & Ma, 2014).
In addition to in-home supports, ongoing child welfare services include out-of-home placements in certain cases, including in kinship foster care (i.e., the young person is placed with a relative or family friend), non-kinship foster care (i.e., the young person is placed in a family environment with unrelated caregivers), and group homes or residential treatment facilities (i.e., typically more restrictive, non-family based settings) (Fallon et al., 2015). Certain factors are associated with an increased likelihood of placement in out-of-home care following contact with the child welfare system. Out-of-home placement is generally associated with poverty and family structure, such that lone caregivers with lower incomes and less employment are more likely to have children enter out-of-home care (Berger & Waldfogel, 2004), as are families who live in the context of neighbourhood socioeconomic disadvantage (Esposito et al., 2013). Children and youth who experience more serious mental health and substance abuse problems, and reside with caregivers who also struggle with these problems, are also more likely to be placed out-of-home (Glisson & Green, 2006).

Young children are more likely to be placed outside the home in situations involving allegations of supervisory neglect (Stahmer et al., 2005), physical, material, health-related, or educational neglect, as well as situations involving concerns of psychological or emotional abuse (Esposito et al., 2013). Generally, adolescents are more likely to be placed in out-of-home care than their younger counterparts (Fast et al., 2014), with externalizing behaviours representing the largest contributor to the decision to place an adolescent (Fast et al., 2014). While parental factors, such as high-risk life styles, are associated with an increased risk of placement among younger children, older children and youth are more likely to experience placement if they are primarily investigated by child welfare services due to their behavioural difficulties (Esposito et al., 2013). Moreover, older children and youth with behaviour problems are more likely to be placed in intensive or restrictive settings, such as treatment foster care, group homes, residential treatment centres, and inpatient psychiatric care (James et al., 2006).

Regardless of whether a family is provided ongoing child welfare services following the initial investigation, child welfare workers are able to make referrals to specialized health and social services in the community if needed, such as medical specialists, psychiatrists or psychologists, or victim support programs (Fallon et al., 2015). Indeed, a key role of child welfare service
providers is to facilitate access to ancillary services in other systems, and thus serve as gateway service providers for children and families (Bunger, Stiffman, Foster, & Shi, 2010). Children who demonstrate externalizing behaviour problems, internalizing issues, and developmental concerns are more likely to receive interventions from ancillary service systems following contact with the child welfare system, including outpatient mental health services (Gudino, Martinez, & Lau, 2012) as well as educational and primary health care services (Stahmer et al., 2005).

4.3 Child Behavioural Outcomes Associated with Child Welfare Service Provision

Interventions applied in child welfare settings must be evaluated for effectiveness, in order to determine how children and families fare after child welfare intervention. Our understanding of outcomes following contact with the child welfare system, however, is limited due to the lack of experimental studies on the interventions used in these settings (Chamberlain et al., 2008) as well as the inherent difficulties in untangling outcomes from the complex preexisting difficulties with which vulnerable children and families struggle (Berger et al., 2009). Nevertheless, researchers have made great strides in understanding the outcomes associated with various child welfare interventions in recent years.

A key positive outcome of involvement with the child welfare system is greater access to needed mental health and other ancillary health and social service systems. Vulnerable and marginalized children and families do not typically self-refer to mental health and other social services, and therefore access to these services among child welfare populations is often dependent on the ability of gatekeepers to identify children and youth in need and connect them to appropriate and effective service providers (Gudino et al., 2012). Vulnerable young people who receive specialized mental health services for their emotional and behavioural difficulties are less likely
to enter out-of-home care, compared to those children and youth who do not receive specialized services, and those who received non-specialized services through the education or health care systems (Glisson & Green, 2006). These findings suggest that increasing the ability of child welfare workers to assess and identify mental health needs and subsequently connect families with specialized services may result in a lower chance of family breakdown (Glisson & Green, 2006).

Other research also points to the benefits to children and families that arise from receiving services following involvement with the child welfare system. Caregivers who receive referrals to services for intimate partner violence and mental health following contact with the child welfare system are more likely to resolve their intimate partner violence issues, which in turn is associated with a significant reduction in their children’s externalizing behaviours over time (Campbell et al., 2013). However, many children who exhibit strong indicators of need for service do not actually receive any mental health services following contact with the child welfare system (Hurlburt et al., 2004; Vanschoonlandt, Vanderfaeillie, Van Holen, De Maeyer, & Robberechts, 2013). Moreover, there is often a significant gap in time between the onset of externalizing and antisocial symptoms, which tends to occur early in life, and the provision of any service from the child welfare, mental health, education, or youth justice sectors (Burns et al., 2001; Burns et al., 2004).

Of all the child welfare services provided to young people and their families, out-of-home child welfare placement is the most studied. Previous research highlights that outcomes following placement in out-of-home care depend on the complex characteristics of individual children and youth as well as various characteristics of the services provided such as placement type, placement stability, and other mental health services offered to children in care (DeGue & Widom, 2009). Due to the difficulties in controlling for these complex factors as well as for child and youth behaviour problems that begin prior to placement, it is unsurprising that studies demonstrate conflicting findings regarding the impact of out-of-home child welfare placement on externalizing, antisocial, and criminal behaviour problems. While some research indicates that placement is associated with a lower likelihood of criminal behaviour, arrests, offence continuation, and offence severity (Jonson-Reid & Barth, 2000; Lemmon, 2006; McMahon &
Clay-Warner, 2002), other research shows a relationship between placement and a higher likelihood of delinquency, violence, and incarceration (Cusick et al., 2010; Derzon, 2010; Ryan & Testa, 2005; Jonson-Reid, 2002). A well-designed study that controlled for various selection effects found no evidence that placement in out-of-home care leads to more negative outcomes for children and youth, and also found no evidence that such placements lead to improvements in well-being (Berger et al., 2009).

Children and youth placed in kinship and non-kinship foster care are less likely to exhibit externalizing and criminal behaviour relative to young people placed in group homes and other restrictive forms of placement (Cheung et al., 2011; Degue & Widom, 2009). Compared to children and youth placed in family-based foster care settings, young people placed in settings such as group homes are more likely to display worsening externalizing behaviour problems and internalizing symptoms (Berger et al., 2009). Placement in group home settings is associated with an increased risk of delinquency, criminal offending, and involvement in the justice system, even when controlling for confounding factors such as child age, sex, race/ethnicity, age at placement, placement instability, and type of abuse (Cusick et al., 2010; Baskin & Sommers, 2011; Ryan et al., 2008). It is difficult, however, to determine the unique impact of group home and restrictive placement settings as youth with preexisting behaviour problems are more likely to be placed in this form of care (James et al., 2006).

Instability is another characteristic of placement that is strongly predictive of poor outcomes (Fisher et al., 2013). Caregiver stability and secure attachment relationships are important protective factors against externalizing behaviours among young people in out-of-home care (Proctor, Skriner, Roesch, & Litrownik, 2010; Tucker & MackKenzie, 2012), with evidence that children and youth who experience unstable placements are at greater risk of displaying aggression, general delinquency, arrest as a juvenile and adult, violent arrest, and incarceration (Baskin & Sommers, 2011; Cusick et al., 2010; Prentky et al., 2014; Runyan & Gould, 1985; Ryan & Testa, 2005; Ryan et al., 2007; Ryan et al., 2008; Widom, 1991), even after controlling for early child behaviour problems (DeGue & Widom, 2009). Reciprocally, child behaviour problems predict placement difficulties and disruptions (Chamberlain et al., 2006; Leathers et al., 2012; Rubin et al., 2007). Even more concerning, research indicates that foster parents rarely
receive adequate services and supports in managing difficult child behaviours (Chamberlain et al., 2008; Vanschoonlandt et al., 2013), the lack of which is likely a contributing factor to placement instability for young people with behaviour problems.

### 4.4 Present Analysis

The present analysis seeks to extend previous research using data from the Ontario Incidence Study of Reported Child Abuse and Neglect 2013 (OIS-2013), the fifth cycle of a province-wide study on the incidence of reported child maltreatment and the characteristics of children and families investigated by child welfare services in Ontario, Canada. Building on existing studies that suggest adolescents who exhibit externalizing behaviour are more likely to experience out-of-home placements in restrictive settings, the purpose of this paper is to extend this work by: (1) providing an overall picture of how child welfare service providers respond to children and youth who exhibit aggressive and/or criminal behaviours; (2) examining a broader range of supportive services that child welfare agencies offer to children and families, beyond out-of-home placement; and (3) utilizing a developmental lens to examine both young children with early aggression and older children and youth exhibiting aggressive and/or criminal behaviours.
4.5 Method

The present analysis utilizes a subsample of 1,446 substantiated maltreatment investigations documented by the OIS-2013. A random sample of 17 child welfare agencies participated in the study, with case selection occurring within these agencies during a three-month sampling period. Only maltreatment-related investigations were captured by the OIS. Children in each family-based case were included in the sample only if they themselves were investigated for a maltreatment-related concern (i.e., non-investigated siblings were excluded). Screened-out cases were excluded from the sample (i.e., cases in which an allegation was documented but the family did not receive an investigation), along with cases currently open for service at a child welfare agency. If a family received an investigation on more than one occasion during the sampling period, the OIS only captured the first investigation (Fallon et al., 2015). In the present analyses, children under four were excluded because aggressive behaviour was rarely documented for very young children in the OIS.

A three-page data collection instrument was used in the OIS-2013, one based on the instrument used in previous cycles. Investigating child welfare workers documented case information on this standardized data collection instrument, entitled the OIS Maltreatment Assessment Form, for each sampled case that they investigated, typically completing it at the conclusion of their initial investigations. Please see Appendix A for a copy of the data collection instrument and please see Appendix B for the accompanying guidebook. Validation focus groups were conducted with a sample of child welfare workers in order to ensure the data collection instrument only included the most relevant questions reflective of current practice. A reliability analysis revealed good to excellent reliability (Kappa = 0.6-0.8) for most items on the instrument (Fallon et al., 2015).

In order to generate provincial, annual estimates, two weights were applied to OIS data including a regionalization weight and an annualization weight. These weights were developed based on census data and child welfare service statistics. Following the application of these weights to the sample of 1,446 investigations included in the present analysis, the total weighted estimated
number of substantiated child maltreatment investigations involving children age four to 15 in Ontario in 2013 was 33,664.

4.5.1 Measures

4.5.1.1 Behaviour Problems and Other Child Functioning Issues

An index of global child functioning was included on the OIS Maltreatment Assessment Form, the purpose of which was to allow for an assessment of the child’s ability to function across various domains at a developmentally appropriate level. Workers completed this index for each child for whom they conducted an investigation, assessing functioning using 18 indicators. The functioning concerns captured in the OIS reflect behaviour problems, developmental concerns, mental health issues, and disabilities that were present for the child in the past six months. Two of these functioning concerns are the focus of this analysis: aggression and involvement in the youth justice system. A child was identified as aggressive if the investigating worker noted this child displayed aggressive behaviour directed at other children or adults or violence to property at home, at school, or in the community. This includes hitting, kicking, biting, fighting, bullying, and other direct forms of aggression and violence. A young person was identified as involved in the youth criminal justice system if the child was age 12 and over and had been charged, incarcerated, or dealt alternative measures under the federal Youth Criminal Justice Act.

Several other child functioning concerns were examined in select analyses, based on literature indicating a relationship between these concerns and aggressive and criminal behaviour (Biglan et al., 2004; Loeber & Burke, 2011) as well as a relationship between these concerns and child
welfare service provision (Jud et al., 2012; Fast et al., 2014), including: attention deficit hyperactivity disorder (ADHD), depression/anxiety/withdrawal, intellectual/developmental disability, attachment issues, and academic difficulties.

4.5.1.2 Child Welfare Service Provision

Three key child welfare services were examined in this analysis: (1) ongoing child welfare services, (2) referrals to specialized service providers, and (3) placement in out-of-home care. A child may have received one, two, or all of these services and in this way these services are nested; all children placed in out-of-home care also received ongoing services, and most children who received ongoing services also received a referral to a specialized service provider. For this reason, services are examined separately in the analysis. The measurement of each service is described below.

4.5.1.2.1 Ongoing Child Welfare Services

Workers participating in the OIS indicated whether or not the case would receive ongoing child welfare services following the initial child welfare investigation. Information on the delivery of ongoing child welfare services was gathered using a dichotomous measure (provision of ongoing services, or case closure following the investigation).
4.5.1.2.2 Referrals to Specialized Service Providers

The OIS-2013 tracked information on 19 specialized services to which child welfare workers commonly refer children and families (e.g., parent support groups, in-home family or parent counseling, welfare or social assistance). Workers indicated whether they made a referral to any of the specialized service providers included on the OIS Maltreatment Assessment Form. Workers could select all referrals that applied.

4.5.1.2.3 Placement in Out-of-Home Care

The OIS-2013 captured information about placement decisions at the conclusion of the initial child welfare investigation. Workers indicated whether an out-of-home placement was made during the investigation, and if so, workers identified the placement type. Four categories of placement were examined in the present analysis: no placement, kinship care (informal or formal), non-kinship foster care, and group home/residential secure treatment care.

4.5.1.2.4 Other Predictors of Child Welfare Service Provision

Several other variables that are related to child welfare service provision were included in this analysis. Various dimensions of maltreatment were examined, including: typology (i.e., physical
abuse, sexual abuse, neglect, emotional maltreatment, exposure to intimate partner violence), co-
ocurrence (i.e., child experienced multiple forms of substantiated maltreatment, such as sexual
abuse and emotional maltreatment), severity (i.e., physical harm to the child was noted during
the investigation), frequency (i.e., multiple incidents of maltreatment versus single incidents),
and chronicity (i.e., history of substantiated maltreatment investigation for the child).

A cumulative measure of family risk was also created for the purpose of this analysis. Risk
factors were selected for inclusion based on previous research. The OIS-2013 collected
information on various family-level risks that child welfare workers typically examine during the
initial investigation. To create an overall index of cumulative risk, each risk factor of interest was
dichotomized to reflect whether it was present or absent, and then the number of risks present
were summed. The following risk factors were included in this cumulative measure: poverty
(receipt of social assistance and/or insufficient family income to meet basic needs), primary
caregiver mental health issues, primary caregiver substance abuse including drug and/or alcohol
abuse, primary caregiver social isolation, primary caregiver history of living in a foster
care/group home as a child, housing transience, and unsafe housing conditions. The cumulative
risk measure ranges from zero (none of the risk factors noted by the investigating child welfare
worker) to seven (all seven risk factors noted).

4.6 Results

This analysis provides an overview of the child welfare service response following the
identification of aggressive and criminal behaviours in maltreated children and youth, examining
several key services and including children age four to 15. Table 6 presents a description of the
extent to which child welfare agencies provide services to children and youth exhibiting
aggressive and/or criminal behaviours. Among substantiated investigations that resulted in
ongoing child welfare services, 20% involved a child displaying aggression, whereas seven percent involved a youth in the justice system. Of substantiated investigations that resulted in a referral to a specialized service provider, 16% identified aggressive behaviour and five percent identified criminal behaviour. Approximately 39% of substantiated investigations that resulted in an out-of-home placement noted aggression for the child, while 21% of investigations resulting in placement noted youth criminal justice system involvement. Examining specific placement types revealed that approximately 28% of investigations that resulted in kinship placement and 36% of investigations that resulted in non-kinship foster care involved a child with aggression. Overall, group home/residential treatment placements were very uncommon, particularly for young people under the age of 12. However, all (100%) substantiated investigations that resulted in a placement in group home/residential treatment care involved a child with aggression, and almost half (46%) of these investigations concerned a young person involved with the justice system.

Tables 7, 8, and 9 present further analysis of the child welfare service response following substantiated maltreatment investigations involving children with and without aggression and/or youth criminal justice system involvement. Results are presented separately by the age of the child.
Table 6

*Percentage of Investigations Resulting in Referrals, Ongoing Services, and/or Out-of-Home Care that Documented Child Behaviour Problems*

<table>
<thead>
<tr>
<th></th>
<th>Aggression*</th>
<th>No Aggression</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>%</td>
<td>Estimate</td>
</tr>
<tr>
<td>Ongoing Child Welfare Services</td>
<td>2,971</td>
<td>20</td>
<td>11,926</td>
</tr>
<tr>
<td>Referrals to Specialized Service Provider</td>
<td>3,221</td>
<td>16</td>
<td>17,122</td>
</tr>
<tr>
<td>Placement in Any Out-of-Home Care Setting</td>
<td>928</td>
<td>39</td>
<td>1,430</td>
</tr>
<tr>
<td>Placement in Kinship Care</td>
<td>317</td>
<td>28</td>
<td>809</td>
</tr>
<tr>
<td>Placement in Non-Kin Foster</td>
<td>344</td>
<td>36</td>
<td>621</td>
</tr>
<tr>
<td>Placement in Group Care*</td>
<td>267</td>
<td>100</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Justice system involvement*</th>
<th>No justice system involvement</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>%</td>
<td>Estimate</td>
</tr>
<tr>
<td>Ongoing Child Welfare Services</td>
<td>337</td>
<td>7</td>
<td>4,262</td>
</tr>
<tr>
<td>Referrals to Specialized Service Provider</td>
<td>348</td>
<td>5</td>
<td>6,085</td>
</tr>
<tr>
<td>Placement in Any Out-of-Home Care Setting</td>
<td>242</td>
<td>21</td>
<td>923</td>
</tr>
<tr>
<td>Placement in Kinship Care</td>
<td>-</td>
<td>-</td>
<td>380</td>
</tr>
<tr>
<td>Placement in Non-Kin Foster</td>
<td>-</td>
<td>-</td>
<td>400</td>
</tr>
<tr>
<td>Placement in Group Care*</td>
<td>121</td>
<td>46</td>
<td>143</td>
</tr>
</tbody>
</table>

*Table reflects percentages within service types (e.g., of all investigations that resulted in ongoing child welfare services, 20% noted child aggression and 80% did not).

^Few children under the age of 12 were placed in group homes.

+Analyses for aggression based on an unweighted sample of 1,446 children age four to 15. Analyses for justice system involvement based on an unweighted sample of 446 youth age 12 to 15.

-Estimates under 100 are not reported as they are too small to be reliable.
4.6.1 Early Childhood (Age Four to Seven)

Within investigations involving children in the youngest age group (age four to seven), few significant differences between children with and without aggression emerged in the overall child welfare service responses (see Table 7). The majority (69%) of investigations involving young children exhibiting aggression resulted in a referral to a specialized service provider, whereas almost half resulted in ongoing child welfare service provision, and very few resulted in placement for the child. Although the overall rate at which young children were referred to specialized service providers was similar regardless of child aggression, several significant differences appeared when examining the specific specialized service providers to which young children were referred. Investigations involving young children with aggression were significantly more likely to result in a referral to in-home counseling services ($\chi^2 = 9.22, p = .002$) and housing services for the family ($\chi^2 = 5.80, p = .016$), compared to investigations involving young children without aggression.
Table 7


<table>
<thead>
<tr>
<th>Age</th>
<th>Child Behaviour Problem</th>
<th>Ongoing Child Welfare Services</th>
<th>Referrals to Specialized Service Providers</th>
<th>Placement in Out-of-Home Care</th>
<th>Total</th>
</tr>
</thead>
</table>
|       |                         | Estimate | %^
| 4-7   | Aggression              | 723      | 45 1,101 | 69  -  -   | 1,613       |
|       | No aggression           | 4,579    | 42 6,172 | 56 550  5   | 11,094      |
| 8-11  | Aggression              | 912**    | 65 925  | 66 126*  9   | 1,425       |
|       | No aggression           | 4,086**  | 45 5,711 | 63 427*  5   | 9,124       |
| 12-15 | Aggression              | 1,337**  | 65 1,195 | 58 712**  33  | 2,183       |
|       | No aggression           | 3,262**  | 40 5,238 | 64 453**  6   | 8,226       |
| 12-15 | Justice system involvement | 337      | 55 348  | 57 242**  40  | 609         |
|       | No justice system involvement | 4,262  | 44 6,085 | 63 923**  9   | 9,801       |

^Percentages reflect % within aggression/justice system involved versus % within non-aggressive/non-involved (e.g., of all investigations in which a 4-7 year old child displayed aggression, 45% received ongoing child welfare services). Percentages do not add up to 100% because services are mutually exclusive.

**Chi-square sig at p <.01 level, *chi-square sig at p<.05 level. Chi-square analysis compares aggressive children to non-aggressive children, and justice system involved youth to youth who are not involved in the justice system.

--Estimates under 100 are not reported as they are too small to be reliable.

+Based on an unweighted sample of 541 substantiated investigations involving children age four to seven, 459 substantiated investigations involving children age eight to 11, and 446 substantiated investigations involving youth age 12 to 15.
4.6.2 Middle Childhood (Age Eight to 11)

As shown in Table 7, several significant bivariate differences appeared in service provision for children age eight to 11 who exhibited aggressive behaviour. Children identified as aggressive were significantly more likely to receive ongoing child welfare services and out-of-home placements compared to children without aggression. While overall referrals to specialized service providers were no more likely in investigations involving children exhibiting aggression, these children were more likely to receive referrals to particular services. Compared to children without aggression, eight to 11 year olds identified as aggressive were more likely to receive referrals to in-home services ($\chi^2 =16.84$, $p<.001$), psychiatric or psychological services ($\chi^2 =8.20$, $p=.004$), parent support groups ($\chi^2 =12.08$, $p=.001$), special education placements ($\chi^2 =43.40$, $p<.001$), and food banks ($\chi^2 =6.07$, $p=.014$).

Given that significant differences appeared at the bivariate level in ongoing service provision and out-of-home placements for children age eight to 11 who displayed aggressive behaviour, logistic regressions were conducted to determine whether these significant differences remained when controlling for other factors that influence service provision (see Table 8). The results of the final model predicting ongoing child welfare services indicate several significant predictors, including the presence of co-occurring forms of substantiated maltreatment (OR=2.88, $p<.001$), maltreatment that occurred over multiple incidents rather than a single incident (OR=2.33, $p<.001$), and cumulative risk in the family (OR=1.69, $p<.001$). After controlling for dimensions of maltreatment and cumulative family risk, aggressive behaviour was no longer associated with an increased likelihood of ongoing child welfare services.

The results of the final logistic regression model predicting out-of-home placement in substantiated maltreatment investigations involving children age eight to 11 revealed slightly different results, also presented in Table 8. In this model, the only significant predictor of placement in out-of-home care was neglect (OR=8.98, $p<.001$), likely a reflection of the fact that one subtype of neglect includes abandonment. Substantiated abandonment implies that the
child’s caregiver is no longer willing or able to care for the child, and has not made adequate alternative care arrangements. After controlling for neglect, none of the other predictors were associated with an increased likelihood of placement, including child aggression.

Table 8

*Logistic Regressions Predicting Ongoing Child Welfare Services and Out-of-Home Placement in Substantiated Maltreatment Investigations involving Children Age Eight to 11*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Ongoing Child Welfare Services</th>
<th>Placement in Out-of-Home Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Block 1 - Maltreatment dimensions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neglect vs. all other types</td>
<td>0.37</td>
<td>0.26</td>
</tr>
<tr>
<td>Co-occurrence</td>
<td>1.06</td>
<td>0.32</td>
</tr>
<tr>
<td>Severity</td>
<td>0.62</td>
<td>0.51</td>
</tr>
<tr>
<td>Frequency</td>
<td>0.85</td>
<td>0.24</td>
</tr>
<tr>
<td>Chronicity</td>
<td>0.40</td>
<td>0.22</td>
</tr>
<tr>
<td>Block 2 - Family risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative family risk score</td>
<td>0.53</td>
<td>0.09</td>
</tr>
<tr>
<td>Block 3 - Child risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression/anxiety/withdrawal</td>
<td>0.37</td>
<td>0.29</td>
</tr>
<tr>
<td>Intellectual/dev. disability</td>
<td>-0.05</td>
<td>0.39</td>
</tr>
<tr>
<td>Attachment issues</td>
<td>0.28</td>
<td>0.39</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>0.22</td>
<td>0.31</td>
</tr>
<tr>
<td>ADHD</td>
<td>-0.25</td>
<td>0.33</td>
</tr>
<tr>
<td>Aggression</td>
<td>0.31</td>
<td>0.37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block χ²</th>
<th>-2LL</th>
<th>R²</th>
<th>Sig.</th>
<th>Block χ²</th>
<th>-2LL</th>
<th>R²</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1 - Maltreatment dimensions</td>
<td>59.91</td>
<td>567.28</td>
<td>0.17</td>
<td>&lt;.001</td>
<td>34.15</td>
<td>182.16</td>
<td>0.19</td>
</tr>
<tr>
<td>Block 2 - Family risk</td>
<td>49.99</td>
<td>517.29</td>
<td>0.29</td>
<td>&lt;.001</td>
<td>4.37</td>
<td>177.79</td>
<td>0.21</td>
</tr>
<tr>
<td>Block 3 - Child risk</td>
<td>6.47</td>
<td>510.83</td>
<td>0.30</td>
<td>0.37</td>
<td>7.47</td>
<td>170.32</td>
<td>0.25</td>
</tr>
</tbody>
</table>

*Nagelkerke R square used
+Analyses conducted on a sample of 459 unweighted substantiated investigations involving children age eight to 11.
4.6.3 Early Adolescence (Age 12 to 15)

The bivariate chi-square analyses presented in Table 7 demonstrate that early adolescents age 12 to 15 exhibiting aggressive and/or criminal behaviour are significantly more likely to receive out-of-home placements when compared to youth without these problems. While the proportion of investigations resulting in placements for children without aggression was similar across all age groups, early adolescents with aggression were more likely to experience an out-of-home placement compared to younger children with aggression. Approximately one-third of investigations involving 12 to 15 year olds with aggression resulted in placement, while 40% of investigations involving 12 to 15 year olds in the youth justice system resulted in placement.

Overall, although early adolescents exhibiting aggressive and/or criminal behaviours were no more likely to receive a referral to a specialized service provider, these young people were more likely to receive referrals to specific services. Adolescents identified as aggressive were significantly more likely to receive a referral to in-home services (23%; \( \chi^2 = 16.87, p<.001 \)), and those involved in the justice system were significantly more likely to receive a referral to psychiatric or psychological services (\( \chi^2 = 9.93, p=.002 \)). No other significant differences emerged in referrals for young people depending on their aggressive behaviour and youth justice system involvement.

Given that significant differences in service provision appeared at the bivariate level, a series of logistic regression models were conducted in order to determine whether the differences remained when controlling for other factors that influence service provision (see Table 9). Several maltreatment dimensions predicted the delivery of ongoing child welfare services for 12 to 15 year olds, including co-occurrence (multiple forms of maltreatment were substantiated), severity (physical harm to the child noted), and frequency (multiple incidents versus a single incident of maltreatment). Cumulative family risk and disadvantage also significantly predicted
ongoing child welfare service delivery, such that with each additional risk noted for the family, the likelihood of ongoing child welfare service receipt increased by a factor of 1.68. Child depression, anxiety, and/or withdrawal was associated with an increased likelihood of ongoing child welfare service delivery in the final model, after controlling for maltreatment dimensions, cumulative family risk, and other child functioning concerns (OR=2.43, p<.001). Aggression and youth justice system involvement were not associated with an increased likelihood of ongoing child welfare service receipt after controlling for other factors.

In the final model predicting out-of-home placement following substantiated investigations of 12 to 15 year old youth (see Table 9), neglect appeared as a significant predictor. When compared to investigations of other forms of maltreatment (i.e., physical abuse, sexual abuse, emotional maltreatment, exposure to intimate partner violence), neglect investigations were 5.46 times more likely to result in an out-of-home placement for the child after controlling for other factors. Again, this may be a result of the fact that abandonment is a subtype of neglect, as children and youth who are abandoned necessarily require alternative living arrangements. Maltreatment severity, as evidenced by physical harm to the child, was also associated with an increased likelihood of placement (OR=3.54, p=.02). Unlike the other models in Tables 8 and 9, the final model predicting out-of-home placement for youth age 12 to 15 indicates that aggression is a significant predictor of placement, even after controlling for all other factors in the model. Investigations that noted child aggression were 3.08 times as likely as investigations that did not note aggression to result in an out-of-home placement for the child (p<.001).
Table 9

Logistic Regressions Predicting Ongoing Child Welfare Services and Out-of-Home Placement in Substantiated Maltreatment Investigations involving Youth Age 12 to 15

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Transfer to Ongoing Services</th>
<th>Placement in Out-of-Home Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Block 1 - Maltreatment dimensions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neglect vs. all other types</td>
<td>0.54</td>
<td>0.28</td>
</tr>
<tr>
<td>Co-occurrence</td>
<td>0.89</td>
<td>0.31</td>
</tr>
<tr>
<td>Severity</td>
<td>1.77</td>
<td>0.51</td>
</tr>
<tr>
<td>Frequency</td>
<td>0.93</td>
<td>0.25</td>
</tr>
<tr>
<td>Chronicity</td>
<td>0.39</td>
<td>0.24</td>
</tr>
<tr>
<td>Block 2 - Family risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative risk score</td>
<td>0.52</td>
<td>0.09</td>
</tr>
<tr>
<td>Block 3 - Child risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression/anxiety/withdrawal</td>
<td>0.89</td>
<td>0.26</td>
</tr>
<tr>
<td>Intellectual/ dev. disability</td>
<td>-0.84</td>
<td>0.37</td>
</tr>
<tr>
<td>Attachment issues</td>
<td>0.47</td>
<td>0.32</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>0.31</td>
<td>0.31</td>
</tr>
<tr>
<td>ADHD</td>
<td>-0.09</td>
<td>0.35</td>
</tr>
<tr>
<td>Aggression</td>
<td>0.17</td>
<td>0.33</td>
</tr>
<tr>
<td>Justice system involvement</td>
<td>0.16</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 1 - Maltreatment dimensions</td>
<td></td>
<td></td>
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<tr>
<td>Block 2 - Family risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 3 - Child risk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Nagelkerke R square used
+Analyses conducted on a sample of 446 unweighted substantiated investigations involving youth age 12 to 15.
4.7  Discussion

Using data from the Ontario Incidence Study of Reported Child Abuse and Neglect 2013 (OIS-2013) and applying a developmental lens, this study provides a snapshot of the services provided following initial child welfare investigations involving maltreated children and youth who demonstrate aggressive and/or criminal behaviours. While this study did not evaluate the outcomes associated with child welfare service delivery, the findings provide insight into the extent to which maltreated young people who receive referrals to specialized service providers, ongoing child welfare services, and/or out-of-home placements struggle with behaviour problems. In addition, the findings add to the current body of knowledge regarding the factors that predict the provision of ongoing services and placement in out-of-home care for young people involved with the child welfare system. Several key findings emerged from this analysis: (1) child welfare workers perform a crucial gateway service provider function, referring young people and their families to ancillary service systems, (2) maltreated young children who demonstrate aggression, despite representing a high-risk group, are not more likely to receive services; this may represent a missed opportunity for secondary prevention of maltreatment and intervention to address the harms associated with maltreatment that has already occurred, and (3) a large proportion of children and youth entering out-of-home care demonstrates aggressive (39%) or criminal (21%) behaviour, particularly older children and adolescents, and these young people are more likely to enter restrictive care settings.

4.7.1  Child Welfare Workers as Gateway Service Providers

Child welfare workers in Ontario are important gateway service providers for vulnerable children and families. Analyses revealed that investigating child welfare workers frequently referred
maltreated young people and their families to specialized service providers in the community, such as counseling services, victim support programs, and parent support groups. Overall, children and youth who demonstrated aggressive and/or criminal behaviour were equally as likely as young people without these behaviour problems to receive a referral to a specialized service provider. Importantly, however, maltreated young people with aggressive and criminal behaviour problems were more likely to receive referrals to certain specialized providers, such as in-home counseling services and psychological or psychiatric services. This suggests that child welfare workers attend to the specific needs of maltreated children and youth, and customize referrals to specialized service providers accordingly.

While the OIS did not capture information about whether the child and family actually accessed the specialized services for which they received a referral, or whether the specialized services were effective, the findings of the present study suggest that contact with the child welfare system assists families in accessing needed health, mental health, and social service resources that they may not otherwise access. Findings from other studies highlight the benefits to the children and families who access such specialized services following contact with the child welfare system, including a lower likelihood of placement in out-of-home care (Glisson & Green, 2006) and the resolution of family issues that contribute to child behaviour problems (Campbell et al., 2013). Notably, however, similar to other research findings (Hurlburt et al., 2004; Vanschoonlandt et al., 2013), the findings of the present study indicate that approximately 30 to 40 percent of maltreated children and youth who demonstrate aggressive and/or criminal behaviours, indicators of need for service, do not receive referrals to specialized service providers following contact with the child welfare system. While these young people may have already been connected with community service providers, the more concerning possibility is that they did not have access to any additional services.
4.7.2 Young Children and Importance of Prevention

Young children who demonstrate early aggressive behaviour are at significant risk of continued behaviour problems. While minor forms of aggressive and other antisocial behaviours may appear in childhood, these behaviour problems have the potential to intensify over time, developing into more serious forms of violence and criminality in adolescence (Dishion et al., 2010; Côté et al., 2006; Hann & Borek, 2001; Lahey & Waldman, 2005). Considerable stability in externalizing problems has been documented (Mesman et al., 2001; Stemmler & Lösel, 2012), with violent and criminal behaviour often emerging from a trajectory characterized by early problem behaviours (Thompson et al., 2011). Maltreated children and youth are most likely to display high levels of aggressive and criminal behaviours over time when they live in the context of accumulating risk, experience recurrent maltreatment, and endure multiple forms of severe abuse and neglect across childhood (Cicchetti et al., 2012; Tabone et al., 2011; Smith & Thornberry, 1995; Verrecchia et al., 2010). Early intervention is critical for maltreated young children demonstrating signs of aggression, in order to prevent further abuse and neglect and interrupt escalating trajectories of problem behaviours over time.

Despite the documented importance of early intervention (e.g., Dodge et al., 2015; Eckenrode et al., 2001), aggressive children age four to seven who had experienced maltreatment were no more likely than their non-aggressive counterparts to receive ongoing child welfare services. This highlights a gap whereby there is a missed opportunity for child welfare service providers to meaningfully change the behavioural trajectories of maltreated young people. Ongoing involvement with children and families following the initial investigation stage allows child welfare service providers to consistently monitor child safety, ensure families receive needed interventions in other sectors, and reduce overall risks to child well-being (DePanfilis & Hayward, 2006). Ongoing child welfare services, therefore, may be particularly beneficial to the vulnerable subpopulation of young children who have experienced maltreatment and demonstrate aggressive behaviour. Notwithstanding, all maltreated children are vulnerable, and it is important to remember that the children who did not display aggression may have been
displaying other child functioning issues indicative of need (e.g., internalizing issues) or family vulnerability (e.g., social isolation).

### 4.7.3 Behaviour Problems at the Point of Entry into Care

A remarkable finding of this study is the high percentage of children entering out-of-home care who demonstrate aggressive and/or criminal behaviours. Almost 40% of maltreated children age four to 15 entering placements demonstrated aggression, while approximately one in five adolescents entering care was involved in the justice system. Moreover, aggressive behaviour was a significant predictor of placement for adolescents age 12 to 15, even after controlling for maltreatment dimensions, cumulative family risk, and other child functioning concerns. While previous research has documented the high levels of behaviour problems and other mental health issues among young people in out-of-home care (Keil & Price, 2006), the present study contributes to the small body of research documenting this trend in the Canadian context.

Although only a small proportion of young people served by the child welfare system in Ontario enter out-of-home care, placements can have powerful positive and negative influences on children and families and are costly to society, representing over half of all child welfare expenditures (Commission to Promote Sustainable Child Welfare, 2012b).

Young people who enter out-of-home care with externalizing and criminal behaviours are less likely to integrate successfully into foster families, more likely to experience a placement disruption, less likely to experience reunification with their families of origin, less likely to be adopted, and less likely to achieve permanency (Chamberlain et al., 2006; Rubin et al., 2007; Leathers et al., 2012). These are grave concerns, particularly given the association between placement instability and negative outcomes, including disrupted brain development, delinquency, and adult criminality (Baskin & Sommers, 2011; DeGue & Widom, 2009; Fisher et al., 2013). Special procedures are needed in order to mitigate the risk of placement instability for
maltreated children and youth with behaviour problems. Fisher and colleagues (2013) discuss various strategies to diminish the risk of instability in child welfare placements, highlighting the importance of developing policies and procedures for simply and efficiently collecting statistically reliable information regarding child behaviour problems. These authors propose collecting this information from out-of-home care providers on an ongoing basis to continually assess the risk of disruption. What the present study reveals, however, is that investigating child welfare workers routinely collect important information regarding child behaviour problems prior to deciding to place a child in out-of-home care. This information could be used in a systematic fashion to detect and monitor children at greatest risk for placement disruption. Policies and procedures are needed in order to ensure that the information regarding child behaviour problems that is collected during the initial child welfare investigation is actually used to inform placement planning and decision-making. Importantly, no such policies or procedures are currently in place in Ontario. Likewise, Fisher and colleagues (2013) observe that there are no empirically based policies or programs to identify and intervene in situations in which a child in out-of-home care is at high risk of placement instability.

Clear patterns emerged when examining behaviour problems among children entering specific out-of-home placement settings. Consistent with previous research (Cheung et al., 2011; Rosenthal & Curiel, 2006), children and youth entering kinship care were less likely to display aggressive and criminal behaviour at the time of placement. This suggests that young people with behaviour problems are less likely to have a kinship care provider available to them, perhaps because of a lack of social support in their families of origin, or because extended family members are not willing to care for them or are poorly equipped to cope with the child’s difficult behaviours.

Children and youth entering group or residential/secure treatment care in the present study, on the other hand, were far more likely to demonstrate behaviour problems. While only a small proportion of young people who were placed in out-of-home care entered group homes or residential/secure treatment facilities, most of these young people were adolescents exhibiting aggressive and/or criminal behaviour. In fact, in this provincially representative sample of substantiated maltreatment investigations, all young people who entered a group home or
residential/secure treatment facility demonstrated aggression, and almost half of youth who entered this type of placement were involved in the justice system. This pattern of findings is consistent with previous research, which demonstrates an association between group care and externalizing, antisocial, and criminal behaviour problems (Baskin & Sommers, 2011; Cusick et al., 2010; James et al., 2006; Ryan et al., 2008). These findings are also consistent with the fact that group care placements are generally regarded as last resort services that lie at the intersection of three distinct service systems: child welfare, mental health, and youth justice (James, 2011). While it is generally agreed that group care placements are needed in particular crisis situations, these restrictive placements are associated with high costs and there is limited evidence of their effectiveness (Barth, 2005; James, 2011). In fact, there is some evidence that group care can exacerbate aggressive and criminal behaviours due to a peer contagion effect, whereby young people who are exposed to deviant peers persistently engage in problematic behaviour as a result of social learning and reinforcement of group norms (Dishion, McCord, & Poulin, 1999; Lee & Thompson, 2009). Other research, however, finds little evidence of a peer contagion effect, and rather, highlights that it is the quality of group care that impacts outcomes rather than exposure to deviant peers (Huefner & Ringle, 2012). There is an urgent need to better understand the heterogeneous forms of group care utilized in the child welfare system and the outcomes associated with this restrictive form of care, in order to determine what types of programs are effective for which young people under what conditions (James, 2011; Lee, 2008).

4.8 Limitations

The findings of the present analysis must be understood in the context of several limitations. The OIS is not designed to assess the outcomes of services, as it is not an evaluative study. Therefore, this analysis only presents an overview of whether a referral was made to a specialized service provider, whether ongoing services were delivered, and whether an out-of-home placement was made, and cannot provide insight into whether these services were effective. Another key
limitation is the cross-sectional nature of the OIS, as information on long-term service decisions and outcomes was not available. Finally, child functioning assessments represent the clinical judgments of participating child welfare workers, which were not verified by an independent source.

4.9 Conclusions

This study provides insight into the services provided to maltreated children and youth exhibiting aggressive and criminal behaviours upon coming into contact with the child welfare system in Ontario, Canada. The findings indicate that a substantial minority of young people receiving services from the child welfare system demonstrates aggressive and/or criminal behaviours, particularly young people who enter out-of-home placements. The findings of this analysis suggest a need for further attention to externalizing, antisocial, and criminal behaviour problems among child welfare agencies and policy makers, in order to ensure that child welfare workers are adequately trained in assessing behavioural challenges and delivering interventions accordingly. Further, there is a need to develop, disseminate, and evaluate child welfare interventions geared specifically to supporting maltreated children with behaviour problems, as well as caregivers to these children. Contact with the child welfare system represents a critical point in the lives of maltreated children and adolescents, and it is important that resources be available to support child welfare workers, foster parents, group home care providers, and other caregivers in their work with children and youth with externalizing, antisocial, and criminal behaviour problems. If timely and effective services are provided to children with early signs of aggression, contact with the child welfare system may shift the behavioural trajectories of maltreated children and youth in positive directions and in turn prevent more serious violent and criminal behaviours that are costly to the individuals who engage in such behaviour, the individuals harmed by it, and society as a whole.
5 Chapter 5: Conclusions

5.1 Introduction

A large body of research has documented the short and long term consequences of child abuse and neglect. In addition to internalizing problems, developmental disruptions, and physical health issues (Cicchetti & Toth, 2005; Gilbert et al., 2009), researchers have identified that maltreatment is associated with externalizing, antisocial, and criminal behaviour problems (e.g., Allwood & Widom, 2013; Ellenbogen et al., 2013; Jonson-Reid, 2002). The purpose of this thesis research is to enrich our current understanding of the association of maltreatment with these behaviour problems. In addition, this research examines how child welfare service providers respond to young people who have been abused and neglected and exhibit these problems, and explores strategies that could be employed by child welfare services to interrupt the association between maltreatment and externalizing, antisocial, and criminal behaviours. As one of the few Canadian studies, this thesis research contributes to our understanding of the relationship between maltreatment and behaviour problems and the intervening role of child welfare services while also providing an estimate of the extent to which maltreated children and youth in Ontario exhibit behaviour problems. In this concluding chapter, the key questions and findings of this theoretical and empirical analysis are summarized and discussed with respect to their implications for social work research, practice, policy, and education.
5.2 To What Extent do Maltreated Children in Canada Exhibit Behaviour Problems?

The extent to which maltreated children and youth in Canada exhibit aggressive and criminal behaviour was estimated in Chapter 3 using data from the 2013 cycle of the Ontario Incidence Study of Reported Child Abuse and Neglect (OIS-2013). Aggression was documented in 13% of all substantiated maltreatment investigations involving children from birth to 15 years in Ontario in 2013. This estimate is approximately four times as high as estimates of aggression in the general population of Canadian children, which typically range from under one percent to approximately four percent (Lee et al., 2007). Similarly, it is estimated that less than one percent of adolescents in the general population become involved in the federal youth criminal justice system (Carrington, 2013). By contrast, this research found that six percent of adolescents with a substantiated maltreatment incident were charged, incarcerated, or dealt alternative measures under the federal Youth Criminal Justice Act. The findings of this study provide important insight into the prevalence of behaviour problems among maltreated children and youth in Ontario, and highlight that maltreated young people struggle with externalizing problems to a greater extent than the general population.

It is essential for future research to consistently measure the prevalence of externalizing, antisocial, and criminal behaviours among young people involved in the child welfare system in order to monitor whether appropriate interventions are available to these high risk children and youth. Comprehensive research infrastructure is needed to accomplish this and to improve the tracking of children through multiple contacts with the child welfare system. Moreover, it is crucial for research to integrate knowledge from multiple systems that serve the vulnerable young people who have experienced maltreatment and exhibit behaviour problems, including the health, mental health, education, and criminal justice systems. Such integration will contribute to a better understanding of trajectories and transitions. With knowledge of the scope and complexity of the issues, policy makers and service providers will be better equipped to
appropriately invest resources in preventing and addressing the behavioural and other mental health difficulties of young people who have experienced maltreatment.

Child welfare administrators and policy makers have a responsibility to target resources toward developing effective interventions that address the behavioural challenges of young people who have experienced abuse and neglect. Detecting behaviour problems, however, is a critical and necessary first step prior to implementing targeted prevention and intervention strategies. Child welfare service providers must possess the capacity to detect externalizing, antisocial, and criminal behaviours among young people who experience abuse and neglect in order to respond appropriately. This thesis research reveals that although child welfare workers were able to identify aggressive and criminal behaviours among older children and adolescents, few workers detected aggression among children under the age of four. It is well documented that behavioural challenges can emerge early in life and that these early difficulties signal a risk of more severe issues later in the life course (Dishion et al., 2010; Hann & Borek, 2001; Rogosch et al., 2010; Thompson et al., 2011). In fact, externalizing behaviours such as non-compliance, opposition, and overt aggression tend to peak in the early years and then diminish for most children with developing cognitive, language, and social capacities (Hann & Borek, 2001). The finding that workers who participated in the OIS rarely noted aggression in very young children, therefore, does not mean that the young children they investigated were free of behavioural challenges. More education and training is needed for child welfare workers to detect the early signs of aggression in young children and to differentiate between normative expressions of externalizing behaviours and signs of more serious problems.
5.3 Why is Maltreatment Associated with Externalizing, Antisocial, and Criminal Behaviour?

Investigating why maltreatment is associated with aggressive and criminal behaviour for some young people but not others offers predictive insight into which maltreated children are at greatest risk of developing behavioural challenges (and conversely, which children with behaviour problems are at greatest risk of experiencing abuse and neglect). The theoretical analysis in Chapter 2 indicates that the relationship between maltreatment and behaviour problems is highly complex, demanding attention to mechanisms and processes at every level of the ecological system. The accumulation of risk and protective factors across all levels emerges as a critical mechanism explaining why maltreatment is associated with behaviour problems among some children but not others, including factors at the child, family, neighbourhood, peer, school, and broader societal levels. Based on the theoretical analysis, children and youth living in the context of accumulating risk are more likely to experience serious and enduring forms of maltreatment and to exhibit significant behavioural challenges. Young people who experience maltreatment but do not develop behaviour problems (and equally, those who exhibit behaviour problems but whose caregivers are not abusive or neglectful) likely have fewer risk and more protective factors in their ecologies, according to this theoretical analysis.

The question of why maltreatment is associated with behaviour problems for some children but not others was further explored in Chapter 3 with an empirical analysis of the OIS-2013 data. Drawing from the theoretical analysis conducted in Chapter 2, cumulative child and family risks were examined as potential factors that explain why certain maltreated young people exhibit aggressive and criminal behaviour and others do not. Acknowledging the heterogeneous nature of maltreatment experiences, the various dimensions of abuse and neglect were also examined as potential explanatory factors. The analysis reveals that maltreated children and youth who exhibit aggressive and/or criminal behaviour are different from their maltreated counterparts who do not display these behaviours in several respects. The subgroup of maltreated young people who displayed aggressive and/or criminal behaviour were more likely to experience serious
forms of co-occurring maltreatment causing physical harm, more likely to be abandoned by their caregivers in adolescence, and more likely to suffer from co-morbid mental health and developmental problems that impacted their functioning, such as attachment issues, academic difficulties, and depression.

Based on these findings, the heterogeneity of maltreatment partially illuminates why some young people who are abused and neglected exhibit behaviour problems and others do not. Maltreatment varies along several dimensions, including severity, chronicity, and typology. Similar to the concept of accumulative risk factors causing significantly more harm to developmental trajectories than one or two risks, the present findings indicate that children and youth who experience more severe, frequent, chronic, and co-occurring forms of maltreatment are at greater risk of exhibiting behaviour problems. This finding is consistent with the results of several studies from the United States (Cicchetti et al., 2012; Jackson et al., 2014; Jonson-Reid, 2002; Jonson-Reid & Barth, 2000; Moylan et al., 2010). The small body of Canadian research has demonstrated conflicting findings in this regard, with one study finding that aggression was not associated with experiencing multiple types of maltreatment or chronic maltreatment (Ellenbogen et al., 2013). By contrast, another Canadian study found that youth who engaged in violent delinquency were more likely to have experienced multiple forms of maltreatment (Crooks et al., 2007). In a field that so heavily relies on research from the United States, this thesis research represents an important contribution to the field and a step toward better understanding how the dimensions of maltreatment relate to behaviour problems among Canadian children and youth.

While it is clear from this analysis that children and youth who exhibit behaviour problems are more likely to experience serious and enduring forms of maltreatment, the cross-sectional nature of the OIS limits the interpretation of this finding. That is, it remains unclear whether young people with behaviour problems are at greater risk of experiencing more extreme forms of maltreatment, or whether children and youth who experience severe abuse and neglect are at greater risk of developing behavioural challenges. Based on the theoretical analysis conducted in this thesis, however, it is likely that both possibilities are valid, and moreover that a bidirectional relationship exists between maltreatment and behaviour problems, such that harsh and neglectful
parenting escalates with increasingly challenging child behaviours. While the vast majority of studies have viewed behaviour problems as a consequence of maltreatment, it is essential that researchers and practitioners consider that young people who exhibit aggressive and criminal behaviour are a group at high risk of experiencing serious abuse and neglect.

Another key finding is that adolescents who exhibit aggressive and/or criminal behaviour are more likely to be neglected by their caregivers, commonly coming to the attention of child welfare authorities because of abandonment. This extreme and devastating form of neglect refers to situations in which a parent is no longer willing or able to remain in a caregiving role. This finding has substantial implications for policy makers and practitioners alike and necessitates a two-pronged focus on preventing situations in which a young person is abandoned and intervening to provide care arrangements and other supports when abandonment cannot be avoided. Preventing abandonment is complex and challenging, particularly because of a dearth of research focused on understanding the factors that diminish a parent’s capacity to remain in a caregiving role.

Based on the findings of this research, maltreated young people who exhibit aggressive and criminal behaviours clearly struggle with significant mental health and developmental challenges. This layering of child vulnerabilities is likely a contributing factor to abandonment in adolescence. That is, it is probable that the combination of a young person’s behavioural and mental health challenges overwhelsms the capacity of the parent to continue in a caregiving role. If this hypothesis is true, early intervention for children’s mental health and behaviour problems is a critical component of preventing abandonment in adolescence. According to this research, aggressive children as young as four years old are more likely to display depression, anxiety, or withdrawal, intellectual or developmental disabilities, academic difficulties, attachment issues, and ADHD, compared to their non-aggressive counterparts. Addressing these compounding difficulties early in life may mitigate the risk of later abandonment. Child welfare workers are in an ideal position to detect early aggression and mobilize services in other sectors such as children’s mental health to address young people’s multiple complex vulnerabilities. It is equally as important for these services to be mobilized when abandonment occurs in adolescence. Child welfare workers must recognize the traumatic nature of abandonment and facilitate access to
timely mental health services for the vulnerable adolescents who experience this extremely powerful form of maltreatment. While behaviour problems and mental health issues may represent a contributor to a parent’s unwillingness to remain in a caregiving role, abandonment is surely experienced as highly traumatic thereby exacerbating a young person’s vulnerabilities.

The findings of this research suggest that child welfare workers routinely collect information on child functioning as part of the investigation process, implying that systematic documentation of behavioural difficulties could be incorporated into existing information systems in order to inform service planning. Maltreated young people who display aggressive and criminal behaviours are at risk of co-morbid mental health and developmental difficulties, and are more likely to experience serious and enduring forms of abuse and neglect. These behaviour problems could therefore act as a simple indicator of a young person who is at risk of poor outcomes including separation from their families of origin. Likewise, young people who experience severe, chronic, frequent, and co-occurring forms of maltreatment could be systematically identified as at risk of developing aggressive and criminal behaviours.

As documented by this thesis research, child welfare workers are faced with some of the highest-need young people who suffer from complex co-occurring problems. Moreover, child welfare workers operate in a complicated context of agency policies, funding structures, and beliefs about how to best support children and families. To competently practice in child welfare settings therefore requires a foundation of high-quality social work education. Trans-disciplinary education is essential in order to ensure that students can recognize the multiple interacting factors that influence developmental trajectories and effectively work with professionals across disciplines. Engaging and practice-focused child welfare courses must be available to social work students along with opportunities for continuing education to maintain competency in the ever-changing landscape of child welfare practice. Social work educators must also prepare students to be the child welfare policy makers and administrators of tomorrow, and must facilitate the acquisition of skills for tackling systems-level issues that impact outcomes for children and families.
5.4 How Do Child Welfare Services Respond Upon Identifying Behaviour Problems?

Chapter 4 of this thesis focused on the question of how child welfare services respond upon identifying aggressive and criminal behaviour problems in maltreated children and youth. While child welfare workers appear to perform an essential gateway service provider function and offer ongoing services in a large proportion of cases, few differences emerged in the services provided to maltreated children with and without behaviour problems. One exception to this was placement in out-of-home care for adolescents exhibiting aggression. Even after controlling for other factors, aggressive adolescents were three times as likely to experience a placement in out-of-home care compared to non-aggressive youth. Overall, of all maltreated children over age four who entered out-of-home child welfare care following a substantiated maltreatment investigation in Ontario in 2013, 39% exhibited aggression, while 21% of all youth entering care were involved in the youth justice system.

Child welfare workers must be knowledgeable about the unique challenges faced by maltreated children and youth with behavioural difficulties. These young people are at risk of worsening behaviour problems, poor mental health and developmental outcomes, and instability in out-of-home placements (Abram et al., 2003; Belknap & Holsinger, 2006; Leathers et al., 2012; Mallett, 2009; Thompson et al., 2011; Thornberry et al., 2014). Moreover, as demonstrated by the findings of this research, young people with behaviour problems are particularly vulnerable to experiencing abandonment by their caregivers in adolescence. With knowledge of these challenges, child welfare workers may be better able to recognize the importance of early intervention for young children demonstrating signs of aggressive and other behaviour problems. According to this research, young children age four to seven exhibiting aggression were not more likely to receive services compared to non-aggressive children, despite their documented co-morbid functioning problems and harsh experiences of maltreatment. As early aggression is a clear indicator that children are at risk of poor behavioural trajectories and separation from their families of origin, child welfare service providers may be missing an opportunity for early
intervention. Another possibility is that child welfare workers recognized the need for early intervention, but were unable to facilitate access to such interventions due to systemic issues. Research is needed to develop early interventions that can be feasibly delivered by child welfare workers and to determine which factors constrain the ability of these workers to implement high quality services.

When early intervention is not possible or unsuccessful and placement in out-of-home care is deemed necessary, it is critical that child welfare workers recognize that young people with behavioural difficulties are at significant risk of experiencing an unsuccessful placement (Aarons et al., 2010; Chamberlain et al., 2006; DeGue & Widom, 2009; Fisher et al., 2013; Newton et al., 2000). According to this thesis research, approximately one-third of young people who were placed in family-based settings exhibited aggression. Caregivers to children and youth exhibiting aggressive and criminal behaviours require support to manage the challenges of these young people. This support might entail additional funding to allow foster parents to dedicate more time to consistently support children and youth with behaviour problems, or funding to provide in-home professional or para-professional support in managing difficult behaviour.

While more research is needed to determine the best strategies for supporting caregivers to children and youth with behavioural challenges, policy makers must attend to the small body of existing intervention research evidence. For instance, research indicates that Multidimensional Treatment Foster Care is effective in supporting foster parents, improving placement stability and chances of reunification, and reducing child behaviour problems (Chamberlain et al., 2008; Chamberlain, Leve, & DeGarmo, 2007; Fisher, Kim, & Pears, 2009; Leve, Fisher, & Chamberlain, 2009; Westermark, Hansson, & Olsson, 2011). Developing, implementing, and evaluating interventions such as Multidimensional Treatment Foster Care will likely have benefits for children and families as well as for society. Immense societal costs are associated with externalizing, antisocial, and criminal behaviours (Biglan et al., 2004) and placements in out-of-home care (Commission to Promote Sustainable Child Welfare, 2012b). Interventions that reduce such behaviour and help children and youth remain with their families of origin will therefore likely result in significant cost savings.
According to this thesis research, all (100%) of the young people who entered group homes and residential treatment facilities displayed aggression and almost half of youth who entered this restrictive form of care were involved in the justice system. Group home and residential treatment placements are intensive services that are heterogeneous in nature. Although very little research supports the use of group home and residential treatment facilities (Barth, 2005; James, 2011), child welfare workers may have few alternatives for young people with behaviour problems. It is critical that the group home and residential treatment interventions currently utilized by Ontario child welfare service providers be evaluated for effectiveness. It is equally as important for child welfare workers to have access to other family-based placement options for maltreated youth with aggressive and criminal behaviours.

5.5 Conclusion

The pursuit of social justice is at the core of the social work profession. Social workers have a long legacy of promoting social justice through advocating for the most marginalized and vulnerable members of society. As social workers, we have a responsibility to recognize the unique vulnerabilities of children and youth who experience maltreatment and exhibit externalizing, antisocial, and criminal behaviours. These young people have suffered particularly harsh forms of abuse and neglect and they are at risk of being separated from their families of origin and placed in restrictive out-of-home settings, despite the lack of evidence of effectiveness. They are more likely to follow trajectories characterized by increasingly severe aggressive and violent criminal behaviour and worsening mental health problems. Clearly, the origins of their vulnerabilities are complex and heterogeneous. This demands that influences at all levels of the ecological system be considered and knowledge from across disciplines be integrated. Trans-disciplinary partnerships with researchers and practitioners across sectors are necessary to address the complex nature of these young people’s difficulties. All working toward the same goal of improving developmental outcomes for marginalized children and youth, social
workers and other professionals can offer a full continuum of integrated care for the vulnerable young people who experience maltreatment and exhibit externalizing, antisocial, and criminal behaviours.
References


Appendices
1. Date case opened:   

2. Source of allegation/referral (Fill in all that apply)  
- Custodial parent  
- Non-custodial parent  
- Child (subject of referral)  
- Relative  
- Police  
- Hospital (any personnel)  
- Community health nurse  
- Other child welfare service  
- Day care centre  
- Community agency  
- Other: ___________________________________   

3. Please describe referral, including alleged maltreatment or risk of maltreatment (if applicable)   

4. Which approach to the investigation was used?  
- Customized/alternate response  
- Traditional protection investigation  

5. Caregiver(s) in the home  
- Primary caregiver  
  - a) Sex  
    - Male  
    - Female  
  - b) Age  
    - <16 yrs  
    - 16-18 yrs  
    - 19-21 yrs  
    - 22-30 yrs  
    - 31-40 yrs  
    - 41-50 yrs  
    - >50 yrs  
- Second caregiver in the home at time of referral  
  - a) Sex  
    - Male  
    - Female  
  - b) Age  
    - <16 yrs  
    - 16-18 yrs  
    - 19-21 yrs  
    - 22-30 yrs  
    - 31-40 yrs  
    - 41-50 yrs  
    - >60 yrs  

6. Use the following RELATIONSHIP CODES to indicate caregiver’s relationship to the child in 6d) and 6e) and, in the case of “other,” please specify the relationship in the space provided  
- 1 Biological parent  
- 2 Parent’s partner  
- 3 Kin foster parent  
- 4 Non-kin foster parent  
- 5 Adoptive parent  
- 6 Grandparent  
- 7 Other: ____________________________________  

7. Other adults in the home (Fill in all that apply)  
- None  
- Grandparent  
- Children ≥ 16 yrs  
- Other:  

A Child Information Sheet should be completed for each child investigated for an incident of maltreatment (6g) or risk of maltreatment (6h). Only complete (6g) and (6h) for children who are the subject of an investigation. For children referred but NOT investigated, DO NOT complete (6g) or (6h) and DO NOT complete a Child Information Sheet.
# OIS Maltreatment Assessment: Household Information

### Primary Caregiver

#### Primary Income
- Full time
- Part time (<30 hrs/wk)
- Employment insurance
- Multiple jobs
- Social assistance
- Other

#### Ethno-racial
- White
- Black
- Aboriginal
- Latin American
- Arab
- West Asian
- South Asian
- Other

#### Aboriginality
- On reserve
- Off reserve
- First Nations status
- First Nations non-status
- Métis
- Inuit
- Other

#### Language
- English
- French
- Other

#### Contact with caregiver in response to investigation
- Co-operative
- Not co-operative
- Not contacted

#### Caregiver risk factors
- Alcohol abuse
- Drug/alcohol abuse
- Cognitive impairment
- Mental health issues
- Physical health issues
- Few social supports
- Victim of intimate partner violence
- Perpetrator of intimate partner violence
- History of foster care/group home

#### Child custody dispute
- Yes
- No
- Unknown

#### Housing
- Own home
- Hotel
- Rental
- Shelter
- Public housing
- Unknown
- Band housing
- Other
- Living with friends/family

#### Home overcrowded
- Yes
- No
- Unknown

#### Number of moves in past year
- 0
- 1
- 2 or more
- Unknown

#### In the last 6 months, household ran out of money for:
- Food
- Housing
- Utilities

### Second Caregiver in the home
- No other caregiver in the home

#### Primary Income
- Full time
- Part time (<30 hrs/wk)
- Employment insurance
- Multiple jobs
- Social assistance
- Other

#### Ethno-racial
- White
- Black
- Aboriginal
- Latin American
- Arab
- West Asian
- South Asian
- Other

#### Aboriginality
- On reserve
- Off reserve
- First Nations status
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- Alcohol abuse
- Drug/alcohol abuse
- Cognitive impairment
- Mental health issues
- Physical health issues
- Few social supports
- Victim of intimate partner violence
- Perpetrator of intimate partner violence
- History of foster care/group home

### Case will stay open for on-going child welfare services
- Yes
- No

### Referral(s) for any family member
- Parent support group
- In-home family or parent counselling
- Other family or parent counselling
- Drug or alcohol counselling
- Welfare or social assistance
- Food bank
- Shelter services
- Domestic violence services
- Housing
- Legal
- Other

### History of foster care/group home
- Yes
- No

### Housing safety
- Are there unsafe housing conditions?
- Yes
- No
- Unknown

- If yes, fill in all that apply
  - Mold
  - Broken glass
  - Inadequate heating
  - Accessible drugs or drug paraphernalia
  - Poisons/chemicals
  - Fire/electrical hazards
  - Other

### Case previously opened for investigation
- Never
- 1 time
- 2-3 times
- >3 times
- Unknown

### If case was previously opened for investigation, how long since the case was closed
- <3 mo
- 3-6 mo
- 7-12 mo
- 13-24 mo
- >24 mo

### Referral(s) for any family member
- Parent support group
- In-home family or parent counselling
- Other family or parent counselling
- Drug or alcohol counselling
- Welfare or social assistance
- Food bank
- Shelter services
- Domestic violence services
- Housing
- Legal
- Other
### OIS Maltreatment Assessment: Child Information

**First name:**

**Sex:**
- Male
- Female

**Age:**

**Ethno-racial**
- White
- Black
- Aboriginal
- Latin American
- Arab
- South Asian
- East Indian
- Pakistani
- Other

**If Aboriginal**
- First Nations
- First Nations non-status
- Metis
- Inuit

**Child functioning**
- Depression/low self-esteem
- Suicidal thoughts
- Self-harming behavior
- ADHD
- Attachment issue
- Aggression
- Running multiple incidents
- Impaired social functioning
- Youth Citadel/Justice Act involvement
- Intellectual/developmental disability
- Failures to meet developmental milestones
- Academic difficulties
- Substance abuse
- Physical disability
- Other

**Risk investigation only**
- Investigated incident of maltreatment
- Risk investigation only

### TYPE OF INVESTIGATION

Please note: all injury investigations are maltreatment investigations

**If you investigated an incident of maltreatment, please complete Column A.**

#### COLUMN A

<table>
<thead>
<tr>
<th>31. Alleged perpetrator</th>
<th>33. Was maltreatment a form of punishment?</th>
</tr>
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<tbody>
<tr>
<td>First 2nd 3rd 4th</td>
<td>Yes No Unknown</td>
</tr>
<tr>
<td>Primary caregiver</td>
<td>Age</td>
</tr>
<tr>
<td>Second caregiver</td>
<td>[3-13 13-15 16-20 21-30]</td>
</tr>
<tr>
<td>Other</td>
<td>[31-40 41-50 51-60 &gt;60]</td>
</tr>
<tr>
<td>Sex</td>
<td>Male Female</td>
</tr>
<tr>
<td>Substantiated</td>
<td>Yes No Unknown</td>
</tr>
<tr>
<td>Suspected</td>
<td>Yes No Unknown</td>
</tr>
<tr>
<td>Unsubstantiated</td>
<td></td>
</tr>
</tbody>
</table>

**If unsubstantiated, was the report a malicious referral?**
- Yes
- No
- Unknown

**Duration of maltreatment (First 2nd 3rd 4th)**
- Yes
- No

**Physical harm evident?**
- Yes
- No

**Types of physical harm:**
- Burns, cuts or scrapes
- Broken bones
- Burns or scalds
- Head/trauma
- Other

**Medical treatment required?**
- Yes
- No

**Emotional maltreatment:**

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Male</td>
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<td>Female</td>
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</table>

Please use these maltreatment codes to answer Question 3E.

**Maltreatment codes**

- Physical abuse
  - 1-3: hit or push
  - 4-6: pull, bite, or Nina
  - 7-9: punch, kick, or throw

- Sexual abuse
  - 10: Sexual contact
  - 11: Sexual penetration
  - 12: Sexual exploitation
  - 13: Sexual harassment

- Neglect
  - 14: Failure to provide physical care
  - 15: Failure to provide emotional care
  - 16: Failure to provide medical care

- Emotional maltreatment
  - 17: Verbal abuse or mandatory
  - 18: Subordination
  - 19: Consensual
  - 20: Invasive

- Exposure to intimate partner violence
  - 21: Direct access to physical violence
  - 22: Indirect exposure to physical violence
  - 23: Exposure to sexual violence
  - 24: Experiencing family violence
Appendix B

THE ONTARIO INCIDENCE STUDY
OF REPORTED CHILD ABUSE AND NEGLECT (OIS)

OIS-2013 Guidebook

BACKGROUND

The Ontario Incidence Study of Reported Child Abuse and Neglect 2013 (OIS-2013) is the fifth provincial study of reported child abuse and neglect investigations in Ontario. Results from the previous four cycles of the OIS have been widely disseminated in conferences, reports, books and journal articles (see Canadian Child Welfare Research Portal, http://cwrp.ca).

The OIS-2013 is funded by the Ministry of Children and Youth Services of Ontario. Significant in-kind support is provided by child welfare agency managers, supervisors, front-line workers, information technology personnel, and other staff. The project is led by Professor Barbara Fallon and managed by a team of researchers at the University of Toronto’s Factor-Inwentash Faculty of Social Work.

If you ever have any questions or comments about the study, please do not hesitate to contact your Site Researcher (see http://cwrp.ca/OIS2013_hub for Site Researcher contact information).

OBJECTIVES

The primary objective of the OIS-2013 is to provide reliable estimates of the scope and characteristics of reported child abuse and neglect in Ontario, in 2013. Specifically, the study is designed to:

- determine rates of investigated and substantiated physical abuse, sexual abuse, neglect, emotional maltreatment, exposure to intimate partner violence and risk of maltreatment, as well as multiple forms of maltreatment;
- investigate the severity of maltreatment as measured by forms of maltreatment, duration, and physical and emotional harm;
- examine selected determinants of health that may be associated with maltreatment;
- monitor short-term investigation outcomes, including substantiation rates, out-of-home placements, use of child welfare court and criminal prosecution;

SAMPLE

In smaller agencies, information will be collected on all child maltreatment-related investigations opened during the three-month period between October 1, 2013, and December 31, 2013. In larger agencies, a random sample of 250 investigations will be selected for inclusion in the study.
OIS MALTREATMENT ASSESSMENT FORM

The OIS Maltreatment Assessment Form was designed to capture standardized information from child welfare investigators on the results of their investigations. It consists of four yellow legalized pages with “Ontario Incidence Study of Reported Child Abuse and Neglect 2013” marked on the top of the front sheet.

The OIS Maltreatment Assessment Form comprises four sheets: an Intake Face Sheet, a Comment Sheet (which is on the back of the Intake Face Sheet), a Household Information Sheet, and two Child Information Sheets. One Child Information Sheet must be completed for each investigated child and extra child sheets can be added for cases involving more than two investigated children. Children living in the household, who are not the subject of an investigation, should be listed on the Intake Face Sheet, although Child Information Sheets should not be completed for them. The form takes ten to fifteen minutes to complete, depending on the number of children investigated in the household.

The OIS Maltreatment Assessment Form examines a range of family, child, and case status variables. These variables include source of referral, caregiver demographics, household composition, key caregiver functioning issues, housing and home safety. It also includes outcomes of the investigation on a child-specific basis (including up to three forms of maltreatment), nature of harm, duration of maltreatment, identity of alleged perpetrator, placement in care, and child welfare court involvement.

DATA COLLECTION

Three models of data collection will be offered to participating agencies: the Site Researcher Training Model, the Agency Support Model and the Combination Model. In addition to these models, the research team is flexible and can determine a unique data collection plan based on specific agency needs.

1) For agencies that select the Site Researcher Training Model, a training session will be held in October 2013 for all workers involved in the study. With this model, the Site Researcher will visit the agency/office prior to the data collection period to administer training and will continue to make regular visits during the data collection process, although workers will complete the OIS Maltreatment Assessment Form independently. On-site visits will allow the Site Researcher to collect forms and resolve any issues that may arise.

2) For agencies that select the Agency Support Model, the Site Researcher will visit the agency/office regularly during the data collection period in order to provide face-to-face assistance to workers in completing the OIS Maltreatment Assessment Form in addition to verifying and collecting forms and attending to issues that may arise.

3) For agencies that select the Combination Model, both training and face-to-face support to workers in completing the OIS Maltreatment Assessment Form will be provided.
CONFIDENTIALITY

Confidentiality will be maintained at all times during data collection and analysis.

To guarantee client confidentiality, all near-identifying information (located at the bottom of the Intake Face Sheet) will be coded at your agency/office. Near-identifying information is data that could potentially identify a household (e.g., agency/office case file number, the first two letters of the primary caregiver’s surname and the first names of the children in the household). This information is required for purposes of data verification only. This tear-off portion of the Intake Face Sheet will be stored in a locked area at your agency/office until the study is completed, and then will be destroyed.

The completed OIS Maltreatment Assessment Form (with all identifying information removed) will be sent to the University of Toronto site for data entry and will then be kept under double lock (a locked RCMP-approved filing cabinet in a locked office). Access to the forms for any additional verification purposes will be restricted to select research team members authorized by the Ministry of Children and Youth Services.

Published analyses will be conducted at the provincial level. No agency/office, worker or team-specific data will be made available to anyone, under any circumstances.

COMPLETING THE OIS MALTREATMENT ASSESSMENT FORM

The OIS Maltreatment Assessment Form should be completed by the investigating worker when he or she is writing the first major assessment of the investigation. In most jurisdictions this report is required within four weeks of the date the case was opened.

It is essential that all items on the OIS Maltreatment Assessment Form applicable to the specific investigation be completed. Use the “Unknown” response if you are unsure. If the categories provided do not adequately describe a case, provide additional information on the Comment Sheet. If you have any questions during the study, contact your Site Researcher.
FREQUENTLY ASKED QUESTIONS

1. FOR WHAT CASES SHOULD I COMPLETE AN OIS MALTREATMENT ASSESSMENT FORM?

The Site Researcher will establish a process in your agency/office to identify to workers the openings or investigations included in the sample for the OIS-2013. Workers will be informed if any of their investigations will be included in the OIS sample.

In smaller agencies, information will be collected on all child maltreatment-related investigations opened during the three-month period between October 1, 2013, and December 31, 2013. Generally, if your agency/office counts an investigation in its official opening statistics reported to the Ministry of Children and Youth Services, then the case is included in the sample and an OIS Maltreatment Assessment Form should be completed, unless your Site Researcher indicates otherwise.

In larger agencies, a random sample of 250 investigations will be selected for inclusion in the study. Workers in large agencies will be provided with a case list of all selected cases, and should complete an OIS Maltreatment Assessment Form for all cases selected through this random selection process.

2. SHOULD I COMPLETE A FORM FOR ONLY THOSE CASES WHERE ABUSE AND/OR NEGLECT ARE SUSPECTED?

Complete an Intake Face Sheet and the tear-off portion of the Intake Face Sheet for all cases opened during the case selection period at your agency/office (e.g., maltreatment investigations as well as prenatal counselling, child/youth behaviour problems, request for services from another agency/office, and, where applicable, brief service cases) or for all cases identified in the random selection process.

If maltreatment was alleged at any point during the investigation, complete the remainder of the OIS Maltreatment Assessment Form (both the Household Information and Child Information Sheets). Maltreatment may be alleged by the person(s) making the report, or by any other person(s), including yourself, during the investigation (e.g., complete an OIS Maltreatment Assessment Form if a case was initially referred for parent/adolescent conflict, but during the investigation the child made a disclosure of physical abuse or neglect). An event of child maltreatment refers to something that may have happened to a child whereas a risk of child maltreatment refers to something that probably will happen. Complete a Household Information Sheet and relevant items on the Child Information Sheet (questions 24 through 29, and Column B) for any child for whom you conducted a risk assessment. For risk assessments only, do not complete the questions regarding a specific event or incident of maltreatment (Column A).

3. SHOULD I COMPLETE AN OIS MALTREATMENT ASSESSMENT FORM ON SCREENED-OUT CASES?

For screened-out or brief service cases that are included in opening statistics reported to the Ministry of Children and Youth Services, please complete the Intake Face Sheet of the OIS Maltreatment Assessment Form.
4. WHEN SHOULD I COMPLETE THE OIS MALTREATMENT ASSESSMENT FORM?

Complete the OIS Maltreatment Assessment Form at the same time that you prepare the report for your agency/office that documents the conclusions of the investigation (usually within four weeks of a case being opened for investigation). For some cases, a comprehensive assessment of the family or household and a detailed plan of service may not be complete yet. Even if this is the case, complete the form to the best of your abilities.

5. WHO SHOULD COMPLETE THE OIS MALTREATMENT ASSESSMENT FORM IF MORE THAN ONE PERSON WORKS ON THE INVESTIGATION?

The OIS Maltreatment Assessment Form should be completed by the worker who conducts the intake assessment and prepares the assessment or investigation report. If several workers investigate a case, the worker with primary responsibility for the case should complete the OIS Maltreatment Assessment Form.

6. WHAT SHOULD I DO IF MORE THAN ONE CHILD IS INVESTIGATED?

The OIS Maltreatment Assessment Form primarily focuses on the household; however, the Child Information Sheet is specific to the individual child being investigated. Complete one child sheet for each child investigated for an incident of maltreatment or for whom you assessed the risk of future maltreatment. If you had no maltreatment concern about a child in the home, and you did not conduct a risk assessment, then do not complete a Child Information Sheet for that child. Additional pads of Child Information Sheets are available at your agency.

7. WILL I RECEIVE TRAINING FOR THE OIS MALTREATMENT ASSESSMENT FORM?

Depending on the data collection method selected by your agency, all workers will either receive training prior to the start of the data collection period or will receive support by the research team in completing the OIS Maltreatment Assessment Form during the data collection period. If a worker is unable to attend the training session or agency support days or is hired after the start of the OIS-2013, he or she should contact the Site Researcher regarding any questions about the form (see http://cwrp.ca/OIS2013_hub for Site Researcher contact information).

8. WHAT SHOULD I DO WITH THE COMPLETED FORMS?

Give the completed OIS Maltreatment Assessment Form to your Agency/Office Contact Person. All forms will be reviewed by the Site Researcher during a site visit, and should he or she have additional questions, he or she will contact you during this visit. If you do not know who your Agency/Office Contact Person is, contact your Site Researcher (see http://cwrp.ca/OIS2013_hub for Site Researcher contact information).

9. IS THIS INFORMATION CONFIDENTIAL?

The information you provide is confidential, and no identifying information will leave your agency/office. Your Site Researcher will code any near-identifying information from the bottom portion of the Intake Sheet. Where a name has been asked for, the Site Researcher will black out the name prior to the form leaving your agency/office. Please refer to the section above on confidentiality.
DEFINITIONS: INTAKE FACE SHEET

QUESTION 1: DATE CASE OPENED
This refers to the date the case was opened. Please fill in date using dd/mm/yy format.

QUESTION 2: SOURCE OF ALLEGATION/REFERRAL
Fill in all sources of referral that are applicable for each case. This refers to separate and independent contacts with the child welfare agency/office. If a young person tells a school principal of abuse and/or neglect, and the school principal reports this to the child welfare authority, you would fill in the circle for this referral as “School.” There was only one contact and referral in this case. If a second source (neighbour) contacted the child welfare authority and also reported a concern for this child, then you would also fill in the circle for “Neighbour/friend.”

- Custodial parent: Includes parent(s) identified in Question 5: Caregiver(s) in the home.
- Non-custodial parent: Contact from an estranged spouse (e.g., individual reporting the parenting practices of his or her former spouse).
- Child (subject of referral): A self-referral by any child listed on the Intake Face Sheet of the OIS Maltreatment Assessment Form.
- Relative: Any relative of the child who is the subject of referral. If the child lives with foster parents, and a relative of the foster parents reports maltreatment, specify under “Other.”
- Neighbour/friend: Includes any neighbour or friend of the child(ren) or his or her family.
- Social assistance worker: Refers to a social assistance worker involved with the household.
- Crisis service/shelter: Includes any shelter or crisis service for domestic violence or homelessness.
- Community/recreation centre: Refers to any form of recreation and community activity programs (e.g., organized sports leagues or Boys and Girls Clubs).
- Hospital (any personnel): Referral originates from a hospital and is made by a doctor, nurse, or social worker rather than a family physician or nurse working in a family doctor’s office in the community.
- Community health nurse: Includes nurses involved in services such as family support, family visitation programs and community medical outreach.
- Community physician: A report from any family physician with a single or ongoing contact with the child and/or family.
- Community mental health professional: Includes family service agencies, mental health centres (other than hospital psychiatric wards), and private mental health practitioners (psychologists, social workers, other therapists) working outside a school/hospital/child welfare/Youth Criminal Justice Act (YCJA) setting.
- School: Any school personnel (teacher, principal, teacher’s aide, school social worker etc.).
- Other child welfare service: Includes referrals from mandated child welfare service providers from other jurisdictions or provinces.
- Day care centre: Refers to a child care or day care provider.
- Police: Any member of a police force, including municipal or provincial/territorial police, or RCMP.
- Community agency: Any other community agency/office or service.
- Anonymous: A referral source who does not identify him- or herself.
- Other: Specify the source of referral in the section provided (e.g., foster parent, store clerk, etc.).

QUESTION 3: PLEASE DESCRIBE REFERRAL, INCLUDING ALLEGED MALTREATMENT OR RISK OF MALTREATMENT (IF APPLICABLE) AND RESULTS OF INVESTIGATION

Provide a short description of the referral, including, as appropriate, the investigated maltreatment or the reason for a risk assessment, and major investigation results (e.g., type of maltreatment, substantiation, injuries). If the reason for the case opening was not for alleged or suspected maltreatment, describe the reason (e.g., adoption home assessment, request for information).

QUESTION 4: WHICH APPROACH TO THE INVESTIGATION WAS USED?

Identify the nature of the approach used during the course of the investigation:

- A customized or alternate response investigation refers to a less intrusive, more flexible assessment approach that focuses on identifying the strengths and needs of the family, and coordinating a range of both formal and informal supports to meet those needs. This approach is typically used for lower-risk cases.

- A traditional child protection investigation refers to the approach that most closely resembles a forensic child protection investigation, and often focuses on gathering evidence in a structured and legally defensible manner. It is typically used for higher-risk cases or those investigations conducted jointly with the police.

QUESTION 5: CAREGIVER(S) IN THE HOME

Describe up to two caregivers in the home. Only caregiver(s) in the child’s primary residence should be noted in this section. Provide each caregiver’s age and sex in the space indicated.

QUESTION 6: LIST ALL CHILDREN IN THE HOME (<16 YEARS)

Include biological, step-, adoptive and foster children.

a) List first names of all children (<16 years) in the home at time of referral: List the first name of each child who was living in the home at the time of the referral.

b) Age of child: Indicate the age of each child living in the home at the time of the referral. Use 00 for children younger than 1.

c) Sex of child: Indicate the sex of each child in the home.

d) Primary caregiver’s relationship to child: Describe the primary caregiver’s relationship to each child, using the codes provided.

e) Second caregiver’s relationship to child: Describe the second caregiver’s relationship to each child (if applicable), using the codes provided. Describe the second caregiver only if the caregiver is in the home.

f) Subject of referral: Indicate which children were noted in the initial referral.

g) Investigated incident of maltreatment: Indicate if the child was investigated because of an allegation of maltreatment. In jurisdictions that require that all children be routinely interviewed for an investigation, include only those children where, in your clinical opinion, maltreatment was alleged or you investigated an incident or event of maltreatment (e.g., include three siblings ages 5 to 12 in a situation of chronic neglect, but do not include the 3-year-old brother of a 12-year-old girl who was sexually abused by someone who does not live with the family and has not had access to the younger sibling).
h) Risk investigation only: Indicate if the child was investigated because of risk of maltreatment only. Include only situations in which no allegation of maltreatment was made, and no specific incident of maltreatment was suspected at any point during the investigation (e.g., include referrals for parent–teen conflict; child behaviour problems; parent behaviour such as substance abuse, where there is a risk of future maltreatment but no concurrent allegations of maltreatment). Investigations for risk may focus on risk of several types of maltreatment (e.g., parent’s drinking places child at risk for physical abuse and neglect, but no specific allegation has been made and no specific incident is suspected during the investigation).

QUESTION 7: OTHER ADULTS IN THE HOME
Fill in all categories that describe adults (excluding the primary and second caregivers) who lived in the house at the time of the referral to child welfare. Note that children (<16 years of age) in the home have already been described on the Intake Face Sheet. If there have been recent changes in the household, describe the situation at the time of the referral. Fill in all that apply.

QUESTION 8: CAREGIVER(S) OUTSIDE THE HOME
Identify any other caregivers living outside the home who provide care to any of the children in the household, including a separated parent who has any access to the child(ren). Fill in all that apply.

TEAR-OFF PORTION OF INTAKE FACE SHEET
The near-identifying information on the tear-off section will be kept securely at your agency/office, for purposes of verification. It will be destroyed at the conclusion of the study.

WORKER’S NAME
This refers to the person completing the form. When more than one individual is involved in the investigation, the individual with overall case responsibility should complete the OIS Maltreatment Assessment Form.

FIRST TWO LETTERS OF PRIMARY CAREGIVER’S SURNAME
Use the reference name used for your agency/office filing system. In most cases this will be the primary caregiver’s last name. If another name is used in the agency/office, include it under “Other family surname” (e.g., if a parent’s surname is “Thompson,” and the two children have the surname of “Smith,” then put “TH” and “SM”). Use the first two letters of the family name only. Never fill in the complete name.

CASE NUMBER
This refers to the case number used by your agency/office.

DEFINITIONS: COMMENT SHEET
The back of the Intake Face Sheet provides space for additional comments about an investigation and there is also space provided at the top for situations where an investigation or assessment was unable to be completed for children indicated in 6a).
DEFINITIONS: HOUSEHOLD INFORMATION SHEET

The Household Information Sheet focuses on the immediate household of the child(ren) who have been the subject of an investigation of an event or incident of maltreatment or for whom the risk of future maltreatment was assessed. The household is made up of all adults and children living at the address of the investigation at the time of the referral. Provide information for the primary caregiver and the second caregiver if there are two adults/caregivers living in the household (the same caregivers identified on the Intake Face Sheet).

If you have a unique circumstance that does not seem to fit the categories provided, write a note on the Comment Sheet under “Comments: Household information.”

Questions A9–A14 pertain to the primary caregiver in the household. If there was a second caregiver in the household at the time of referral, complete questions B9–B14 for the second caregiver. If both caregivers are equally engaged in parenting, identify the caregiver you have had most contact with as the primary caregiver. If there was only one caregiver in the home at the time of the referral, endorse “no other caregiver in the home” under “second caregiver in the home” at the top right of the Household Information Sheet.

QUESTION 9: PRIMARY INCOME

We are interested in estimating the primary source of the caregiver’s income. Choose the category that best describes the caregiver’s source of income. Note that this is a caregiver-specific question and does not refer to a combined income from the primary and second caregiver.

- **Full time**: Individual is employed in a permanent, full-time position.
- **Part time (fewer than 30 hours/week)**: Refers to a single part-time position.
- **Multiple jobs**: Caregiver has more than one part-time or temporary position.
- **Seasonal**: This indicates that the caregiver works at either full- or part-time positions for temporary periods of the year.
- **Employment insurance**: Caregiver is temporarily unemployed and receiving employment insurance benefits.
- **Social assistance**: Caregiver is currently receiving social assistance benefits.
- **Other benefit**: Refers to other forms of benefits or pensions (e.g., family benefits, long-term disability insurance, child support payments).
- **None**: Caregiver has no source of legal income. If drugs, prostitution or other illegal activity are apparent, specify on Comment Sheet under “Comments: Household information.”
- **Unknown**: Check this box if you do not know the caregiver’s source of income.

QUESTION 10: ETHNO-RACIAL GROUP

Examining the ethno-racial background can provide valuable information regarding differential access to child welfare services. Given the sensitivity of this question, this information will never be published out of context. This section uses a checklist of ethno-racial categories used by Statistics Canada in the 2011 Census.

Endorse the ethno-racial category that best describes the caregiver. Select “Other” if you wish to identify two ethno-racial groups, and specify in the space provided.
QUESTION 11: IF ABORIGINAL

a) On or off reserve: Identify if the caregiver is residing “on” or “off” reserve.

b) Caregiver’s status: First Nations status (caregiver has formal Indian or treaty status, that is, registered with Aboriginal Affairs and Northern Development Canada [formerly INAC]), First Nations non-status, Métis, Inuit or Other (specify and use the Comment Sheet if necessary).

QUESTION 12: PRIMARY LANGUAGE

Identify the primary language of the caregiver: English, French, or Other. If Other, please specify in the space provided. If bilingual, choose the primary language spoken in the home.

QUESTION 13: CONTACT WITH CAREGIVER IN RESPONSE TO INVESTIGATION

Would you describe the caregiver as being overall cooperative or non-cooperative with the child welfare investigation? Check “Not contacted” in the case that you had no contact with the caregiver.

QUESTION 14: CAREGIVER RISK FACTORS

These questions pertain to the primary caregiver and/or the second caregiver, and are to be rated as “Confirmed,” “Suspected,” “No,” or “Unknown.” Fill in “Confirmed” if the risk factor has been diagnosed, observed by you or another worker or clinician (e.g., physician, mental health professional) or disclosed by the caregiver. Use the “Suspected” category if your suspicions are sufficient to include in a written assessment of the household or a transfer summary to a colleague. Fill in “No” if you do not believe there is a problem and “Unknown” if you are unsure or have not attempted to determine if there was such a caregiver risk factor. Where applicable, use the past six months as a reference point.

- Alcohol abuse: Caregiver abuses alcohol.
- Drug/solvent abuse: Abuse of prescription drugs, illegal drugs or solvents.
- Cognitive impairment: Caregiver has a cognitive impairment.
- Mental health issues: Any mental health diagnosis or problem.
- Physical health issues: Chronic illness, frequent hospitalizations or physical disability.
- Few social supports: Social isolation or lack of social supports.
- Victim of intimate partner violence: During the past six months the caregiver was a victim of intimate partner violence, including physical, sexual or verbal assault.
- Perpetrator of intimate partner violence: During the past six months the caregiver was a perpetrator of intimate partner violence.
- History of foster care/group home: Indicate if this caregiver was in foster care and/or group home care during his or her childhood.

QUESTION 15: CHILD CUSTODY DISPUTE

Specify if there is an ongoing child custody/access dispute at this time (court application has been made or is pending).
QUESTION 16: HOUSING

Indicate the housing category that best describes the living situation of this household at the time of referral.

- **Own home:** A purchased house, condominium or townhouse.
- **Rental:** A private rental house, townhouse, or apartment.
- **Public housing:** A unit in a public rental-housing complex (i.e., rent subsidized, government-owned housing), or a house, townhouse or apartment on a military base. Exclude Band housing in a First Nations community.
- **Band housing:** Aboriginal housing built, managed and owned by the band.
- **Living with friends/family:** Living with a friend or family member.
- **Hotel:** An SRO (single room occupancy) hotel or motel accommodations.
- **Shelter:** A homeless or family shelter.
- **Unknown:** Housing accommodation is unknown.
- **Other:** Specify any other form of shelter.

QUESTION 17: HOME OVERCROWDED

Indicate if household is made up of multiple families and/or is overcrowded.

QUESTION 18: NUMBER OF MOVES IN PAST YEAR

Based on your knowledge of the household, indicate the number of household moves within the past twelve months.

QUESTION 19: IN THE LAST 6 MONTHS, HOUSEHOLD RAN OUT OF MONEY FOR:

a) **Food:** Indicate if the household ran out of money to purchase food at any time in the last 6 months.

b) **Housing:** Indicate if the household ran out of money to pay for housing at any time in the last 6 months.

c) **Utilities:** Indicate if the household ran out of money to pay for utilities at any time in the last 6 months (e.g., heating, electricity).

QUESTION 20: HOUSING SAFETY

a) **Are there unsafe housing conditions?** Indicate if there were unsafe housing conditions at the time of referral.

b) **If yes, fill in all that apply.** If there are unsafe housing conditions, fill in all conditions that apply.

- **Mold:** The presence of mold in the living environment poses a health risk to the child.
- **Broken glass:** The presence of broken glass in the living environment poses a risk of injury to the child.
- **Inadequate heating:** The absence of adequate heating in the living environment poses a health risk to the child.
- **Accessible drugs or drug paraphernalia:** Illegal or legal drugs stored in such a way that a child might access and ingest them, or needles stored in such a way that a child may access them.
- **Poisons/chemicals:** Poisons and/or chemicals stored in such a way that a child might access and ingest or touch them.

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• **Fire/electrical hazards:** The presence of fire and/or electrical hazards in the living environment (e.g., no smoke detector, frayed or worn electrical cords).
• **Other:** Specify any other unsafe housing condition(s).

**QUESTION 21:** CASE PREVIOUSLY OPENED FOR INVESTIGATION

**Case previously opened for investigation:** Has this family been previously investigated by a child welfare agency/office? Respond if there is documentation, or if you are aware that there has been a previous investigation. Estimate the number of previous investigations. This would relate to investigations for any of the children identified as living in the home (listed on the Intake Face Sheet).

a) **If case was previously opened for investigation, how long since the case was closed**

How many months between the date the case was last closed and this current investigation opening date? Please round the length of time to nearest month and select the appropriate category.

**QUESTION 22:** CASE WILL STAY OPEN FOR ON-GOING CHILD WELFARE SERVICES

At the time you are completing the GIS Maltreatment Assessment Form, do you plan to keep the case open to provide on-going child welfare services?

**QUESTION 23:** REFERRAL(S) FOR ANY FAMILY MEMBER

Indicate referrals that have been made to programs designed to offer services beyond the parameters of “on-going child welfare services.” Include referrals made internally to a special program provided by your agency/office as well as referrals made externally to other agencies/services. Note whether a referral was made and is part of the case plan, not whether the young person or family has actually started to receive services. Fill in all that apply.

- **No referral made:** No referral was made to any programs.
- **Parent support group:** Any group program designed to offer support or education (e.g., Parents Anonymous, Parenting Instruction Course, Parent Support Association).
- **In-home family or parent counselling:** Home-based services designed to support families, reduce risk of out-of-home placement, or reunify children in care with their families.
- **Other family or parent counselling:** Refers to any other type of family or parent support or counselling not identified as “parent support group” or “in-home family/parenting counseling” (e.g., couples or family therapy).
- **Drug or alcohol counselling:** Addiction program (any substance) for caregiver(s) or children.
- **Welfare or social assistance:** Referral for social assistance to address financial concerns of the household.
- **Food bank:** Referral to any food bank.
- **Shelter services:** Regarding domestic violence or homelessness.
- **Domestic violence services:** Referral for services/counselling regarding domestic violence, abusive relationships or the effects of witnessing violence.
- **Housing:** Referral to a social service organization that helps individuals access housing (e.g., housing help center).
- **Legal:** Referral to any legal services (e.g., police, legal aid, lawyer, family court).

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• Psychiatric or psychological services: Child or parent referral to psychological or psychiatric services (e.g., trauma, high risk behaviour or intervention).
• Special education placement: Any specialized school program to meet a child’s educational, emotional or behavioural needs.
• Recreational services: Referral to a community recreational program (e.g., organized sports leagues, community recreation, Boys and Girls Clubs).
• Victim support program: Referral to a victim support program (e.g., sexual abuse disclosure group).
• Medical or dental services: Any specialized service to address the child’s immediate medical or dental health needs.
• Child or day care: Any paid child or day care services, including staff-run and in-home services.
• Cultural services: Services to help children or families strengthen their cultural heritage.
• Speech/language: Referral to speech/language services (e.g., speech/language specialist).
• Other: Indicate and specify any other child- or family-focused referral.

DEFINITIONS: CHILD INFORMATION SHEET

QUESTION 24: CHILD NAME AND SEX
Indicate the first name and sex of the child for which the Child Information Sheet is being completed. Note this is for verification only.

QUESTION 25: AGE
Indicate the child’s age. Use 00 for children younger than one year of age.

QUESTION 26: CHILD ETHNO-RACIAL GROUP
Examining the ethno-racial background can provide valuable information regarding differential access to child welfare services. Given the sensitivity of this question, this information will never be published out of context. This section uses a checklist of ethno-racial categories used by Statistics Canada in the 2011 Census.

Select the ethno-racial category that best describes the child. Select “Other” if you wish to identify two ethno-racial groups, and specify in the space provided.

QUESTION 27: IF ABORIGINAL
Indicate the Aboriginal status of the child for which the OIS Maltreatment Assessment Form is being completed. First Nations status (child has formal Indian or treaty status, that is, is registered with Aboriginal Affairs and Northern Development Canada [formerly INAC]). First Nations non-status, Métis, Inuit or Other (specify and use the Comment Sheet if necessary).

QUESTION 28: CHILD FUNCTIONING
This section focuses on issues related to a child’s level of functioning. Fill in “Confirmed” if the problem has been diagnosed, observed by you or another worker or clinician (e.g., physician, mental health professional), or disclosed by the parent or child. Suspected means that, in your clinical opinion, there is reason to suspect that the condition may be present, but it has not been diagnosed, observed or disclosed. Fill in “No” if you do not believe there is a problem and
“Unknown” if you are unsure or have not attempted to determine if there was such a child functioning issue. Where appropriate, use the past six months as a reference point.

- **Depression/anxiety/withdrawal**: Feelings of depression or anxiety that persist for most of the day, every day for two weeks or longer, and interfere with the child’s ability to manage at home and at school.
- **Suicidal thoughts**: The child has expressed thoughts of suicide, ranging from fleeting thoughts to a detailed plan.
- **Self-harming behaviour**: Includes high-risk or life-threatening behaviour, suicide attempts, and physical mutilation or cutting.
- **ADD/ADHD**: ADD/ADHD is a persistent pattern of inattention and/or hyperactivity/impulsivity that occurs more frequently and more severely than is typically seen in children at comparable stages of development. Symptoms are frequent and severe enough to have a negative impact on the child’s life at home, at school or in the community.
- **Attachment issues**: The child does not have physical and emotional closeness to a mother or preferred caregiver. The child finds it difficult to seek comfort, support, nurturance or protection from the caregiver; the child’s distress is not ameliorated or is made worse by the caregiver’s presence.
- **Aggression**: Aggressive behaviour directed at other children or adults (e.g., hitting, kicking, biting, fighting, bullying) or violence to property at home, at school or in the community.
- **Running (Multiple incidents)**: The child has run away from home (or other residence) on multiple occasions for at least one overnight period.
- **Inappropriate sexual behaviour**: Child displays inappropriate sexual behavior, including age-inappropriate play with toys, self or others; displaying explicit sexual acts; age-inappropriate sexually explicit drawing and/or descriptions; sophisticated or unusual sexual knowledge; prostitution or seductive behaviour.
- **Youth Criminal Justice Act involvement**: Charges, incarceration or alternative measures with the youth justice system.
- **Intellectual/developmental disability**: Characterized by delayed intellectual development, it is typically diagnosed when a child does not reach his or her developmental milestones at expected times. It includes speech and language, fine/gross motor skills, and/or personal and social skills (e.g., Down syndrome, Autism spectrum disorders).
- **Failure to meet developmental milestones**: Children who are not meeting their development milestones because of a non-organic reason.
- **Academic difficulties**: Includes learning disabilities that are usually identified in school, as well as any special education program for learning difficulties, special needs, or behaviour problems. Children with learning disabilities have normal or above-normal intelligence, but deficits in one or more areas of mental functioning (e.g., language usage, numbers, reading, work comprehension).
- **FAS/FAE**: Birth defects, ranging from mild intellectual and behavioral difficulties to more profound problems in these areas related to in utero exposure to alcohol abuse by the biological mother.
- **Positive toxicology at birth**: When a toxicology screen for a newborn tests positive for the presence of drugs or alcohol.
- **Physical disability**: Physical disability is the existence of a long-lasting condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting or carrying. This includes sensory disability conditions such as blindness.

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deafness, or a severe vision or hearing impairment that noticeably affects activities of daily living.

- **Alcohol abuse**: Problematic consumption of alcohol (consider age, frequency and severity).
- **Drug/solvent abuse**: Include prescription drugs, illegal drugs and solvents.
- **Other**: Specify any other conditions related to child functioning; your responses will be coded and aggregated.

**QUESTION 29: TYPE OF INVESTIGATION**

Indicate if the investigation was conducted for a specific incident of maltreatment, or if it was conducted to assess risk of maltreatment only. Refer to question 6 g) and h) for a detailed description of an “incident of maltreatment” versus a “risk investigation only”. If this is a risk investigation only, please complete column B only (questions 38 to 42).

Please note: all injury investigations are maltreatment investigations (complete column A and B).

**QUESTION 30: MALTREATMENT CODES**

The maltreatment typology in the OIS-2013 uses five major types of maltreatment: **Physical Abuse**, **Sexual Abuse**, **Neglect**, **Emotional Maltreatment**, and **Exposure to Intimate Partner Violence**. These categories are comparable to those used in the previous cycles of the Ontario Incidence Study. Rate cases on the basis of your clinical opinion, not on provincial or agency/office-specific definitions.

Select the applicable maltreatment codes from the list provided (1–32) on the tear off portion of the bottom of the **Child Information Sheet**, and write these numbers clearly in the boxes under Question 30. Enter in the first box the maltreatment code that best characterizes the investigated maltreatment. If there are multiple types of investigated maltreatment (e.g., physical abuse and neglect), choose one maltreatment code within each typology that best describes the investigated maltreatment. All major forms of alleged, suspected or investigated maltreatment should be noted in the maltreatment code box regardless of the outcome of the investigation.

**Physical Abuse**

The child was physically harmed or could have suffered physical harm as a result of the behaviour of the person looking after the child. Include any alleged physical assault, including abusive incidents involving some form of punishment. If several forms of physical abuse are involved, please identify the most harmful form.

- **Shake, push, grab or throw**: Include pulling or dragging a child as well as shaking an infant.
- **Hit with hand**: Include slapping and spanking, but not punching.
- **Punch, kick or bite**: Include as well any hitting with parts of the body other than the hand (e.g., elbow or head).
- **Hit with object**: Includes hitting with a stick, a belt or other object, throwing an object at a child, but does not include stabbing with a knife.
- **Choking, poisoning, stabbing**: Include any other form of physical abuse, including choking, strangling, stabbing, burning, shooting, poisoning and the abusive use of restraints.
- **Other physical abuse**: Other or unspecified physical abuse.
Sexual Abuse

The child has been sexually molested or sexually exploited. This includes oral, vaginal or anal sexual activity; attempted sexual activity; sexual touching or fondling; exposure; voyeurism; involvement in prostitution or pornography; and verbal sexual harassment. If several forms of sexual activity are involved, please identify the most intrusive form. Include both intra-familial and extra-familial sexual abuse, as well as sexual abuse involving an older child or youth perpetrator.

- Penetration: Penile, digital or object penetration of vagina or anus.
- Attempted penetration: Attempted penile, digital, or object penetration of vagina or anus.
- Oral sex: Oral contact with genitals either by perpetrator or by the child.
- Fondling: Touching or fondling genitals for sexual purposes.
- Sex talk or images: Verbal or written proposition, encouragement or suggestion of a sexual nature (include face to face, phone, written and Internet contact, as well as exposing the child to pornographic material).
- Voyeurism: Include activities where the alleged perpetrator observes the child for the perpetrator’s sexual gratification. Use the “Exploitation” code if voyeurism includes pornographic activities.
- Exhibitionism: Include activities where the perpetrator is alleged to have exhibited himself or herself for his or her own sexual gratification.
- Exploitation: Include situations where an adult sexually exploits a child for purposes of financial gain or other profit, including pornography and prostitution.
- Other sexual abuse: Other or unspecified sexual abuse.

Neglect

The child has suffered harm or the child’s safety or development has been endangered as a result of a failure to provide for or protect the child.

- Failure to supervise: physical harm: The child suffered physical harm or is at risk of suffering physical harm because of the caregiver’s failure to supervise or protect the child adequately. Failure to supervise includes situations where a child is harmed or endangered as a result of a caregiver’s actions (e.g., drunk driving with a child, or engaging in dangerous criminal activities with a child).
- Failure to supervise: sexual abuse: The child has been or is at substantial risk of being sexually molested or sexually exploited, and the caregiver knows or should have known of the possibility of sexual molestation and failed to protect the child adequately.
- Permitting criminal behaviour: A child has committed a criminal offence (e.g., theft, vandalism, or assault) because of the caregiver’s failure or inability to supervise the child adequately.
- Physical neglect: The child has suffered or is at substantial risk of suffering physical harm caused by the caregiver(s)’ failure to care and provide for the child adequately. This includes inadequate nutrition/clothing, and unhygienic, dangerous living conditions. There must be evidence or suspicion that the caregiver is at least partially responsible for the situation.
- Medical neglect (includes dental): The child requires medical treatment to cure, prevent, or alleviate physical harm or suffering and the child’s caregiver does not provide, or refuses, or is unavailable, or unable to consent to the treatment. This includes dental services when funding is available.
• **Failure to provide psych. treatment**: The child is suffering from either emotional harm demonstrated by severe anxiety, depression, withdrawal, or self-destructive or aggressive behaviour, or a mental, emotional or developmental condition that could seriously impair the child’s development and the child’s caregiver does not provide, or refuses, or is unavailable, or unable to consent to treatment to remedy or alleviate the harm. This category includes failing to provide treatment for school-related problems such as learning and behaviour problems, as well as treatment for infant development problems such as non-organic failure to thrive. A parent awaiting service should not be included in this category.

• **Abandonment**: The child’s parent has died or is unable to exercise custodial rights and has not made adequate provisions for care and custody, or the child is in a placement and parent refuses/is unable to take custody.

• **Educational neglect**: Caregivers knowingly permit chronic truancy (5+ days a month), or fail to enrol the child, or repeatedly keep the child at home.

**Emotional Maltreatment**

The child has suffered, or is at substantial risk of suffering, emotional harm at the hands of the person looking after the child.

• **Terrorizing or threat of violence**: A climate of fear, placing the child in unpredictable or chaotic circumstances, bullying or frightening a child, threats of violence against the child or child’s loved ones or objects.

• **Verbal abuse or belittling**: Non-physical forms of overtly hostile or rejecting treatment. Shaming or ridiculing the child, or belittling and degrading the child.

• **Isolation/confine**: Adult cuts the child off from normal social experiences, prevents friendships or makes the child believe that he or she is alone in the world. Includes locking a child in a room, or isolating the child from the normal household routines.

• **Inadequate nurturing or affection**: Through acts of omission, does not provide adequate nurturing or affection. Being detached, uninvolved; failing to express affection, caring and love, and interacting only when absolutely necessary.

• **Exploiting or corrupting behaviour**: The adult permits or encourages the child to engage in destructive, criminal, antisocial, or deviant behaviour.

**Exposure to Intimate Partner Violence**

• **Direct witness to physical violence**: The child is physically present and witnesses the violence between intimate partners.

• **Indirect exposure to physical violence**: Includes situations where the child overhears but does not see the violence between intimate partners; or sees some of the immediate consequences of the assault (e.g., injuries to the mother); or the child is told or overhears conversations about the assault.

• **Exposure to emotional violence**: Includes situations in which the child is exposed directly or indirectly to emotional violence between intimate partners. Includes witnessing or overhearing emotional abuse of one partner by the other.

• **Exposure to non-partner physical violence**: A child has been exposed to violence occurring between a caregiver and another person who is not the spouse/partner of the caregiver (e.g., between a caregiver and a neighbour, grandparent, aunt or uncle).
QUESTION 31: ALLEGED PERPETRATOR

This section relates to the individual who is alleged, suspected or guilty of maltreatment toward the child. Fill in the appropriate perpetrator for each form of identified maltreatment as the primary caregiver, second caregiver or “Other.” If “Other” is selected, specify the relationship of the alleged perpetrator to the child (e.g., brother, uncle, grandmother, teacher, doctor, stranger, classmate, neighbour, family friend). If you select “Primary caregiver” or “Second caregiver,” write in a short descriptor (e.g., “mom,” “dad,” or “boyfriend”) to allow us to verify consistent use of the label between the Household Information and Child Information Sheets. Note that different people can be responsible for different forms of maltreatment (e.g., common-law partner abuses child, and primary caregiver neglects the child). If there are multiple perpetrators for one form of abuse or neglect, fill in all that apply (e.g., a mother and father may be alleged perpetrators of neglect). Identify the alleged perpetrator regardless of the level of substantiation at this point of the investigation.

If Other Perpetrator

If Other alleged perpetrator, identify

a) Age: If the alleged perpetrator is “Other,” indicate the age of this individual. Age is essential information used to distinguish between child, youth and adult perpetrators. If there are multiple alleged perpetrators, describe the perpetrator associated with the primary form of maltreatment.

b) Sex: Indicate the sex of the “Other” alleged perpetrator.

QUESTION 32: SUBSTANTIATION (fill in only one substantiation level per column)

Indicate the level of substantiation at this point in your investigation. Fill in only one level of substantiation per column; each column reflects a separate form of investigated maltreatment, and thus should include only one substantiation outcome.

- Substantiated: An allegation of maltreatment is considered substantiated if the balance of evidence indicates that abuse or neglect has occurred.
- Suspected: An allegation of maltreatment is suspected if you do not have enough evidence to substantiate maltreatment, but you also are not sure that maltreatment can be ruled out.
- Unfounded: An allegation of maltreatment is unfounded if the balance of evidence indicates that abuse or neglect has not occurred.

If the maltreatment was unfounded, answer 32 a).

a) Was the unfounded report a malicious referral? Identify if this case was intentionally reported while knowing the allegation was unfounded. This could apply to conflictual relationships (e.g., custody dispute between parents, disagreements between relatives, disputes between neighbours).

QUESTION 33: WAS MALTREATMENT A FORM OF PUNISHMENT?

Indicate if the alleged maltreatment was a form of punishment for the child.
QUESTION 34: DURATION OF MALTREATMENT

Check the duration of maltreatment as it is known at this point in time in your investigation. This can include a single incident or multiple incidents. If the maltreatment type is unfounded, then the duration needs to be listed as “Not Applicable (Unfounded).”

QUESTION 35: POLICE INVOLVEMENT

Indicate the level of police involvement for each maltreatment code listed. If a police investigation is ongoing and a decision to lay charges has not yet been made, select the investigation item.

QUESTION 36: IF ANY MALTREATMENT IS SUBSTANTIATED OR SUSPECTED, IS MENTAL OR EMOTIONAL HARM EVIDENT?

Indicate whether the child is showing signs of mental or emotional harm (e.g., nightmares, bed wetting or social withdrawal) following the maltreatment incident(s).

a) If yes, child requires therapeutic treatment: Indicate whether the child requires treatment to manage the symptoms of mental or emotional harm.

QUESTION 37: PHYSICAL HARM

a) Is physical harm evident? Indicate if there is physical harm to the child. Identify physical harm even in accidental injury cases where maltreatment is unfounded, but the injury triggered the investigation.

If there is physical harm to the child, answer 37 b) and c).

b) Types of physical harm: Fill in all types of physical harm that apply.

- Bruises/cuts/scrapes: The child suffered various physical hurts visible for at least 48 hours.
- Broken bones: The child suffered fractured bones.
- Burns and scalds: The child suffered burns and scalds visible for at least 48 hours.
- Head trauma: The child was a victim of head trauma (note that in shaken-infant cases the major trauma is to the head, not to the neck).
- Fatal: Child has died; maltreatment was suspected during the investigation as the cause of death. Include cases where maltreatment was eventually unfounded.
- Health condition: Physical health conditions, such as untreated asthma, failure to thrive or sexually transmitted infections (STIs).

c) Was medical treatment required? In order to help us rate the severity of any documented physical harm, indicate whether medical treatment was required as a result of the physical injury or harm.

QUESTION 38: IS THERE A SIGNIFICANT RISK OF FUTURE MALTREATMENT?

Indicate, based on your clinical judgment, if there is a significant risk of future maltreatment.

QUESTION 39: PREVIOUS INVESTIGATIONS

Child previously investigated by child welfare for alleged maltreatment: This section collects information on previous Child Welfare investigations for the individual child in question. Report

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if the child has been previously investigated by Child Welfare authorities because of alleged maltreatment. Use “Unknown” if you are aware of an investigation but cannot confirm this. Note that this is a child-specific question as opposed to question 21 (case previously opened for investigation) on the Household Information Sheet.

a) If yes, was the maltreatment substantiated? Indicate if the maltreatment was substantiated with regard to this previous investigation.

QUESTION 40: PLACEMENT

a) Placement during investigation. Indicate whether an out-of-home placement was made during the investigation.

b) If yes, placement type: Check one category related to the placement of the child. If the child is already living in an alternative living situation (emergency foster home, receiving home), indicate the setting where the child has spent the most time.

- Kinship out of care: An informal placement has been arranged within the family support network; the child welfare authority does not have temporary custody.
- Customary care: Customary care is a model of Aboriginal child welfare service that is culturally relevant and incorporates the unique traditions and customs of each First Nation.
- Kinship in care: A formal placement has been arranged within the family support network; the child welfare authority has temporary or full custody and is paying for the placement.
- Foster care (non-kinship): Include any family-based care, including foster homes, specialized treatment foster homes and assessment homes.
- Group home: Out-of-home placement required in a structured group living setting.
- Residential/secure treatment: Placement required in a therapeutic residential treatment centre to address the needs of the child.
- Other: Specify any other placement type.

QUESTION 41: CHILD WELFARE COURT APPLICATION

Indicate whether a child welfare court application has been made. If investigation is not completed, answer to the best of your knowledge at this time. Select one category only.

a) Referral to mediation/alternative response: Indicate whether a referral was made to mediation, family group conferencing, an Aboriginal circle, or any other alternative dispute resolution (ADR) process designed to avoid adversarial court proceedings.

QUESTION 42: CAREGIVER(S) USED SPANKING IN THE LAST 6 MONTHS

Indicate if caregiver(s) used spanking in the last 6 months. Use “Suspected” if spanking could not be confirmed or ruled out. Use “Unknown” if you are unaware of caregiver(s) using spanking.

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