MATERNAL HISTORY OF ABUSE AS A MODERATOR OF EFFECTIVENESS IN A PARENTING INTERVENTION PROGRAM FOR ABUSED WOMEN

by

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Abstract

This study examined the effectiveness of a parenting intervention for abused women and their children called Mothers in Mind™. Based on models of cumulative effects of trauma, it was hypothesized that women who experienced continuous abuse (from childhood to adulthood) would have more parenting difficulties initially and be less receptive to treatment than women whose abuse experiences began later in life (in youth and/or adulthood). Fifty-seven women completed the intervention. Overall, parenting intervention significantly increased women’s parenting competence but did not significantly change mothers’ perceptions of their attachment with their children. Contrary to hypotheses, there were no significant differences in initial parenting difficulties between the two groups and timing of abuse (continuous versus late onset) did not significantly differentiate treatment effects. Contributions of other contextual variables, such as poverty and parental psychopathology, to variation in the effectiveness of intervention for this population of multiply disadvantaged women are discussed.
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Chapter 1: Introduction

Overview

Developmental psychopathology can be “defined as the study of the origins and course of individual patterns of behavioural maladaptation” (Sroufe & Rutter, 1984, p. 18.) across the life span. Using ‘typical’ development as markers of comparison, developmental psychopathology is primarily concerned with understanding why some children go on to develop disordered adaptation patterns and subsequent psychopathology, whereas others display resilience in their environment despite various risk factors. One of the most well-founded risk factors for children’s adaptation patterns is a disturbance within the parent-child relationship (Garmezy, 1983).

Child maltreatment is considered one the most extreme violations of the parent-child union. According to researchers (Cicchetti, Toth, & Bush, 1988; Sroufe & Fleeson, 1986), children encounter critical stages of development throughout their childhood and, if these stages are disrupted by improper caregiving, children will have a higher probability of failing to reach developmental milestones and/or achieving tasks, leading to an array of mental health problems. Also important to consider are the dimensions of abuse associated with these prominent developmental periods. For instance, children who experience abuse in early childhood, compared to children who experience abuse later in childhood, suffer more detrimental effects (Keily, Howe, Dodge, Bates, & Pettit, 2001). Moreover, children who experience chronic forms of abuse beginning in childhood and extending into adulthood face the most profound challenges, especially as they begin to encounter more complex developmental tasks later in
life, such as parenting. Parenting deficits are not only more severe for those who have suffered chronic abuse (Black et al., 2001), but are also likely to be more resistant to change.

This study sought to explore how earlier traumatic experiences, and more importantly the continuity of these experiences, impact women’s parenting abilities and receptiveness to treatment, compared to women who were abused later in life. To set the context for this study the following sections will review this issue of child maltreatment from a developmental psychopathology perspective, and how various factors associated with the abuse itself, such as age of onset, and acute versus chronic forms of maltreatment, contribute to children’s patterns of development and psychopathology across the lifespan. Finally, the effects of abuse on parenting will be discussed as well as the type of interventions available that target parenting problems for women with an abuse history.

**Child Abuse Incidence**

Child maltreatment continues to be a significant issue in North America. Data from the Canadian Incidence Study of Reported Child Abuse and Neglect (CIS, 2008) estimates that over 200,000 investigations of child maltreatment occurred in 2008, indicating rates of 39.16 investigations per 1,000 children across Canada. Of these cases, 85,000 investigations were substantiated, which translates into rates of 14.19 substantiations per 1,000 children. Over 17,000 of these cases (20%) were recorded as physical abuse and nearly 3,000 (3%) as sexual abuse. Proportions in the US are similar, with more than 3 million maltreatment cases being investigated, which is a rate of 41.2 reports per 1,000 children. Nearly 700,000 of these cases were substantiated, translating into rates of 9.1 victimizations per 1,000 children (National Child
Abuse Neglect Data System, 2011). According to American government statistics, a high number of maltreatment cases continue to pertain to sexual and physical abuse, with nearly 18% of children experiencing physical abuse and approximately 10% being exposed to sexual abuse. Further inspection of maltreatment data reveals that the majority of abuse takes place within the confines of the caregiver/child relationship (CIS, 2008). Younger children aged 0-7 experience the highest rates of victimization (Shonkoff & Phillips, 2000), which is not surprising given their vulnerability and reliance on the caregiver relationship. What is also important to highlight is that many cases of child maltreatment go unreported, and therefore available statistics on substantiated maltreatment cases is an underestimation of the true extent of the problem (MacMillan, Jamieson, & Walsh, 2003; Trocmé et al., 2005). This is most troubling when you take into account the high number of documented re-victimizations (Finkelhor, 1995) and the even higher number of incidents that are likely occurring, but are not reported, and the pervasive damage that can result from these repeated incidents (Bolger & Patterson, 2001).

**Child Maltreatment: Environmental Risk Factors**

Discussing this critical issue of child maltreatment also requires recognition of the environmental influences that contribute to the occurrence of child maltreatment and subsequent psychopathology. Drawing upon Bronfenbrenner’s work (1979), Belsky’s (1980) model is the most widely adapted ecological framework used to explain the contexts associated with child maltreatment risk. Belsky’s theory purports that there are four nested layers within the environment that combine and interact to increase the risk of maltreatment. These layers include: an outer layer consisting of societal and cultural norms indirectly influencing family
functioning, factors inherent in local communities where these families live, and then more proximal factors including family context, and individual variables associated with the children themselves. In order to include a developmental perspective, Cicchetti and Rizley (1981) modified the use of this ecological framework from understanding child maltreatment risk to explaining how child maltreatment influences children’s developmental trajectories and future psychopathology, specifically the interplay among child, parent, and broader environmental characteristics that blend together to create a unique set of risk factors, impacting the heterogeneity of maltreated children’s mental health and wellbeing (Cicchetti & Rizley, 1981). Even though it is beyond the scope of this paper to provide an in-depth understanding of the outcomes associated with contextual concerns such as poverty, marital discord, parental psychopathology, and poor parenting, research suggests that they have all been found to play a role in child maltreatment outcomes (see Hecht & Hansen, 2001, for a review). Also important to acknowledge is that child abuse often occurs within these contextual difficulties (i.e., socioeconomic disadvantage, marital problems, parenting problems, and poor parental mental health (Wolfe & McEachran, 1997), and when child maltreatment does occur along with these stressors, it can exacerbate children’s individual expressions of their response to abuse (Finkelhor, 1995; Masten, 1989).

Child Maltreatment and Developmental Psychopathology

Acknowledging that environmental factors can contribute to child maltreatment outcomes is important; however, it is the profoundly negative experience of child abuse itself that is highly implicated in directing children’s developmental trajectories and future
symptomology. To provide a theoretical basis for understanding how these adverse familial experiences are connected to psychopathology, developmental pioneers Sroufe and Rutter (1984) discussed the direct and indirect influences of children’s experiences that can lead to mental health problems. These authors claimed that children’s experiences result in a series of adaptations. That is, how children choose to respond to experiences within their environment, such as trauma, can later cause psychological difficulties often persisting throughout the life span. Direct influences include: experience that impacts immediate functioning; experience that influences physiological changes; and experience that disrupts current behaviour, all of which impair later functioning. Indirect influences encompass children’s experiences that promote changes in their immediate environment, such as family circumstances, and in turn may reduce their ability respond to stress, disrupt coping mechanisms, alter self concept, and inhibit developmental opportunities in their environment, increasing the probability of mental health problems (Sroufe & Rutter, 1984). For instance, patterns of avoiding an abusive caregiver may reduce children’s opportunities to develop healthy relationships with others in the future (Sroufe & Rutter, 1984; Wolfe, 1987). Sroufe and Rutter suggested that this type of behaviour can lead to adaptation failure, whereby adaptations that were previously functional (e.g., avoiding an abusive caregiver) can over time compromise children’s healthy development. More specifically, children interact with their environment and form a special ‘fit’ with their surroundings over time, influencing this environment, and thus also being influenced by it. It is this transactional process between children and the negative experiences they encounter that sets the stage for developmental failure and future mental health problems.
Child Maltreatment: Developmental Tasks, Processes, and Psychopathology

Although child maltreatment is often thought of as an event, in the context of developmental psychopathology it is more complex, as over time children’s responses to these events become intertwined with developmental processes and distressing symptoms. Recognizing the interplay of critical developmental periods and processes, along with trauma symptoms, can continue to increase our understanding about the developmental pathways that lead to adjustment problems in maltreated children. According to developmental theorists (Cicchetti et al., 1988; Sroufe & Fleeson, 1986), a domino effect takes place along the developmental pathways of maltreated children. For example, a child’s failure at an important stage of development, such as developing an insecure attachment to their caregiver as a result of frightening/traumatic care-giving, leads to a higher risk of failure in future ‘stage-salient’ development tasks (Cicchetti & Toth, 1995). Stage-salient tasks are considered primary developmental tasks within a certain stage/age period, in which development is greatly influenced by caregivers, and where disruption has major negative effects (Cicchetti & Toth, 1995). As already mentioned, developing an attachment to one’s caregiver is considered stage-salient, as is affect regulation (i.e., developing the ability to regulate one’s emotions), development of the self system (a sense of self worth), establishing healthy peer relations, and adaptation to school (see Cicchetti & Toth, 1995, for a review). Disruption during these developmental stages has been associated with numerous impairments in cognitive, socio-emotional and behavioural functioning in maltreated children. These impairments occur in the domains of social competence, self esteem, autonomy, emotional adjustment, intellectual functioning and school performance (Conaway & Hansen, 1989; Finkelhor, 1995; Kendall-
Tackett, Williams, & Finkelhor, 1993; Kolko, 1992), with more recent studies recognizing the neurobiological interferences of development (Cicchetti & Rogosch, 2001; Cicchetti & Toth, 2005) such as cortisol/hyper-arousal activity and links to social functioning (Kim, Cicchetti, & Rogosch, 2012).

Symptoms of distress have also been found, particularly in children who have been physically and/or sexually abused. For example, maltreatment has been linked to numerous internalizing and externalizing problems such as depression, anxiety, suicidal behaviours, substance abuse and disordered eating (Conway & Hansen, 1989; Finkelhor, 1995; Kendall-Tackett et al., 1993; McClellan, Adams, Douglas, McCurry, & Storck, 1995; Kim & Cicchetti, 2010) as well as PTSD, sexualized behaviour and dissociation (Green, 1993; Kendall-Tackett et al., 1993; Teisl & Cicchetti, 2008), with many of these difficulties persisting into adulthood (Edwards, Anda, Felitti, & Dube, 2003; Green, 1993; Johnson-Reid, Kohl, & Drake, 2012; McCauley et al., 1997). The empirical ties between maltreated children’s developmental processes and psychopathology are also beginning to emerge, further supporting the idea that stage-salient development tasks such as attachment and emotion regulation serve as a mechanism for psychopathology (Kim & Cicchetti, 2010; Muller, Thornback, & Beti, 2012). Continuing the work in this area will provide further insight into the explicit developmental pathways of psychopathology and a more complete picture of the developmental sequelae for maltreated children. In particular, being able to assess the unique contribution of disrupted developmental tasks and processes, and how they stimulate and interact with symptomology, will better inform the development course for maltreated children.
Dimensions of Abuse: Age of Onset

Given a developmental psychopathology perspective, it follows that children who are abused at younger ages (during achievement of stage salient developmental tasks) are likely to show greater problems in adjustment. Evaluating such characteristics as age of onset, including age related developmental periods, not only provides further support for organizing child maltreatment within a developmental perspective, but also stresses the role of timing of abuse on both immediate and later functioning. The literature is consistent: the earlier children are maltreated, the more their quality of life suffers, with these difficulties often extending into adolescence and adulthood. For example, Keily et al. (2001) found that when they followed children from kindergarten to high school, those who experienced physical abuse earlier in life had greater negative patterns of behaviour in early adolescence than those abused later in childhood. Another study reported that earlier age of first maltreatment predicted poor daily living skills (English, Graham, Litrownik, Everson, & Bangdiwala, 2005), while yet another study demonstrated that children who had an earlier onset of sexual abuse, measured continuously between the ages of 0 and 13, experienced higher levels of anxiety of years later compared to those abused later in childhood (Kaplow, Dodge, Amaya-Jackson, & Saxe, 2005). Further, a recent meta-analysis that included 16 epidemiological studies found that those who had experienced physical child maltreatment earlier were at greater risk for chronic depression in adulthood, and among 10 of these studies, researchers found that participants experiencing abuse earlier in life were less likely to be receptive to treatment in later adolescence and/or adulthood (Nanni, Uher, & Danese, 2012).
Conceptualizing age of onset in terms of the developmental periods in which maltreatment can occur furthers our understanding about the role of stage-salient development tasks across the lifespan. One of the few studies to examine the effects of child maltreatment beyond adolescence into adulthood, combining age with the theoretically driven stages of psychosocial development outlined by Erikson (1963), was conducted by Kaplow and Windom (2007). This study classified children who had been physically abused, sexually abused and/or neglected in three different ways: 1) age as a continuous variable (ages 0-11); 2) age classified as a dichotomous variable, early (ages 0-5) and later (ages 6-11); and 3) by developmental period: infancy (ages 0-2), preschool (ages 3-5), early school age (6-8), and school age (9-11).

Findings from this prospective study indicated that children who were maltreated earlier (before the age of six and encompassing infancy and pre-school developmental periods) had higher levels of psychological distress at the age of 40 than those maltreated later. Results also suggested that the pre-school developmental period (ages 3-5) is particularly sensitive to abuse effects, as children maltreated during this stage suffered significantly more anxiety, depression, and antisocial personality diagnoses in adulthood, compared to those abused during early school years (ages 6-8) and later school periods (9-11). This study supports the theory that interference with stage-salient tasks during earlier development periods, and in particular during developmental tasks encountered during pre-school, predict problems across the life-span; however, when and how these problems are expressed is variable, signifying other possible dimensions of childhood abuse.
Dimensions of Child Abuse: Frequency, Severity and Chronicity

Frequency, severity, and chronicity of maltreatment are also important characteristics to consider when determining its effects. In an effort to better understand the role that these factors play in predicting child maltreatment outcomes, Barnett and colleagues created the Maltreatment Classification System (MCS: Barnett, Manly, & Cicchetti, 1993). This nosological system provides operational definitions of many interrelated aspects of maltreatment, including frequency, severity and chronicity. The MCS has spurred on work in this area and allows researchers to empirically evaluate the contributions of each of these dimensions, as well as how they interact (Manley, Kim, Rogosch, & Cicchetti, 2001). In 1994, Manley, Cicchetti and Barnett utilized the MCS in a large-scale case review of maltreatment cases, and validated the importance of these dimensions in predicting childhood problems. More specifically, Manley and colleagues found an interaction between severity and frequency of maltreatment – low severity abuse that occurred frequently was the strongest predictor, suggesting that frequent abuse is more harmful than single events of abuse, no matter how severe. A later study by Manley and colleagues (2001), using the MCS, explored the effects of severity of abuse, also incorporated developmental timing of maltreatment as a variable. Findings from this study confirmed a general assumption that children who were maltreated developed more problems than the non-maltreatment sample, but more importantly, provided evidence surrounding the implication of severity of abuse in early childhood. Specifically, Manley et al. found that severity of abuse during early childhood (between infancy and preschool - before the age of 5) predicted a range of deleterious outcomes in middle childhood, and that the earlier this abuse occurred (i.e., infancy), the more detrimental outcomes were found.
during middle childhood. Taken together, these studies suggest that severe and/or frequent abuse during early childhood contributes negatively to child outcomes. Further, when considering the independent effects of these dimensions of maltreatment (i.e., when controlling for gender, minority status, income, and age), a high frequency of abuse (considered chronic abuse) predicts negative outcomes over and above severity of abuse (English et al., 2005).

Studies on different dimensions of abuse help to shed light on this finding that chronically maltreated children fare worse than children who experience more acute maltreatment. Understanding the impact of chronic abuse is critical, as numerous children experience repeated incidents of abuse throughout childhood and into adolescence (Barnett et al., 1993; McGee, Wolfe, Yuen, Wilson, & Carnachon, 1995). Chronic abuse has been associated with many negative outcomes. Researchers have posited that chronic abuse fractures children’s underlying developmental mechanisms, distorting their social world view (see Bolger & Patterson, 2001, for a review), and predicts externalizing behaviours, social-emotional problems, and psychological distress in childhood (Bolger & Patterson, 2001; English et al., 2005). Links have also been made between the effects of chronic abuse in early childhood and maladaptive outcomes in middle childhood (Manley et al., 2001). The combined effects of maltreatment in childhood continuing into adolescence predict far greater mental health problems than does the experience of maltreatment in childhood alone (Thornberry, Ireland, & Smith 2001). These results also demonstrate sensitivity to key developmental social processes, and are consistent with the views of developmental researchers who assert that chronic maltreatment impacts key developmental outcomes (Egeland & Sroufe, 1981, Egeland, Sroufe,
Continuity into Adulthood

Unfortunately, there are few studies available that document the effects of abuse when it is experienced throughout childhood and yet again in adulthood. This lack of evidence is surprising given the links between childhood victimization and the increased likelihood of experiencing adult victimization (Maker, Kemmelmeier & Peterson, 1998). Extending the developmental psychopathology perspective across the lifespan from the evidence that chronic negative experiences contribute to continued developmental failure throughout childhood into adolescence, it is logical to assume that abuse into adulthood likely exacerbates the effects of previous developmental failures and subsequent psychopathology. In one of the few studies investigating the negative effects of chronic abuse from childhood and into adulthood, McCauley and colleagues (1997) compared the effects of physical versus sexual abuse of nearly 2000 women seen in primary care practices. Findings indicated that women who suffered abuse in childhood, adolescence, and adulthood experienced more psychological and physiological distress that those women who reported abuse before the age of 18 years old, or in adulthood only. This study and others (Black et al., 2001; van der Kolk, 1996) support the notion of pervasive effects of chronic abuse continuing into adulthood and more importantly, the cumulative detrimental effect that this extreme form of abuse has on functioning over time.

Finally, it is prudent to mention the role of different maltreatment types on abuse outcomes. Although this review attempts to highlight the specific effects of sexual or physical

& Erikson, 1983), resulting in continued impairment deficits over time (Coster, Beeghly, Gersten, & Cicchetti, 1989).
abuse in the outcome research, it is important to acknowledge that different types of abuse tend to co-occur (Higgins & McCabe, 2000). Therefore parsing out the effects, such as in the case of physical and sexual abuse, can be difficult. Manley et al. (2001) supported this notion, finding small differences between varying maltreatment types and outcomes. They highlight this issue as a limitation in their research, indicating there are few “pure” types of maltreatment, and when combined with chronic abuse this purity is virtually non-existent. Certainly the complex effects of maltreatment types should be taken into account where possible; however, consolidating the research on various types of maltreatment could also be useful, especially seeing that the available treatment support for women in adulthood is typically expanded to include those who have experienced multiple forms of abuse.

**Maternal Abuse and Parenting**

Emergence into adulthood is often associated with taking on a parenting role, which has been documented as an important development phase (Galinsky, 1987). Moving into this phase can be difficult for women with a history of abuse, often leading to a number of parenting problems (see DiLillo & Damashek, 2003, for a review). To date, research is in the early stages of separating out the mechanisms associated with a maternal history of abuse and poor parenting functioning (DiLillo & Damashek, 2003). One aspect that has gained attention in contributing to parenting problems is the relationship difficulties that these mothers typically encounter with their children (DiLillo & Damashek, 2003). Attachment theory provides solid theoretical evidence as to why children’s early experiences within this parent-child union impacts future close relationships (Bowlby, 1973). The reciprocal relationship between a child and its caregiver
creates internal working models or internalized blueprints that dictate a path for present and future relationships (Roisman, Madsen, Henninghausen, Sroufe, & Collins, 2001) and provide a rationale as to why women who have been maltreated in childhood experience relational difficulties in marriage and in parenthood (Banyard, 1997; DiLillo & Damashek, 2003; Lyons-Ruth & Block, 1996; Zuravin & Fontanella, 1999). For example, in an excellent qualitative review of mothers who experienced childhood sexual abuse, O’Dougherty Wright and colleagues (2012) discuss mothers as having difficulty in providing a secure base for their children along with problems in expressing empathy and affection, suggesting that their ability to emotionally connect and develop healthy relations with their children may be impaired.

Another area of research that highlights the parenting difficulties victims of abuse face, and which is embedded within these relational difficulties, focuses on certain aspects of women’s poor parenting attitudes and behaviours (see DiLillo & Damashek, 2003, for a review). For example, highly associated with survivors of abuse is the issue of mother-child role reversal, whereby mothers rely on their own children in order to meet their emotional needs. When women cross these boundaries within the mother-child relationship, and seek high levels of emotional support from their children, not only can a number of other relational problems occur, their children’s own development can suffer. (Chase, 1999). Moreover, the disciplinary practices that are often used by these women are problematic. For example, mothers who have been physically abused in childhood have been shown to have poorer parent-child interactions (Lang, Gerstein, Rodgers, & Lebeck, 2010) and harsher parenting practices (Pears & Capaldi, 2001) than mothers without a childhood history of maltreatment. These findings are similar to those found in childhood sexual abuse survivors, whereby mothers who have been sexually abused in
childhood tend to use coercive parenting practices with their children (Fopma-Loy, & Oberle, 2012; Zuravin & Fontanella, 1999), further impacting the quality of their relationship.

Finally, women who have a history of abuse often have a poor view of their ability to parent successfully. For example, women who have been abused have a negative self-view (Banyard, 1997) that often includes a lack of perceived competence surrounding their parenting abilities and behaviours (O’Dougherty Wright, Fopma-Loy, & Oberle, 2012; Zuravin & Fontanella, 1999).

Cumulative effects of abuse on parenting behaviours have also been found. In keeping with models of the cumulative effects of trauma indicated by Rutter (as cited in Zuravin, McMillen, DePanfilis, & Risley-Curtiss, 1999, p. 316.), studies have reported that continuous/chronic maternal victimization from childhood into adulthood predicts negative parenting outcomes (Banyard, Williams, & Siegel, 2003; Black et al., 2001; Cohen, Hein, & Batchheider, 2008; Morell, Dubowtiz, Kerr & Black, 2003), seriously impairing parents’ abilities to care for their children (Banyard, 1997). Specifically, chronically abused women have decreased parenting satisfaction (Banyard et al., 2003) and exhibit punitive and aggressive parenting practices (Cohen et al., 2008; Morell et al., 2003) substantially more than do women who have suffered from abuse during either childhood or adulthood alone (Black et al., 2001).

Of particular interest is that over 50% of the sample studied in the Black et al. (2001) research, which differentiated the effects of chronic abuse on parenting from the effects of abuse experienced during childhood or adulthood, experienced chronic abuse, indicating that lifetime adversity for mothers represents a major social problem.
Female abuse that begins in adulthood is also concerning, especially considering the high prevalence of women who are abused (both physically and/or sexually) within intimate partner relationships (Tjaden & Thoennes, 2000). Similar to the findings on earlier and more chronic forms of abuse, research indicates that mothers’ parenting behaviours are also negatively affected (Levendosky & Graham-Bermann, 1998; Levendosky & Graham-Bermann, 2000). However, mixed results exist (Levendosky & Graham-Berman, 2000; Levendosky, Lynch, & Graham-Berman, 2000). For example, contrary to their hypotheses and previous research, one study found that domestic violence victimization (physical abuse) did not predict authoritarian and controlling parenting behaviours in mothers (Levendosky & Graham-Berman, 2000). In another study, mothers who were abused by their partner actually reported using more positive parenting techniques with their children (Levendosky, et al., 2000), which is similar to previous work suggesting that mothers who have experienced domestic violence may actually try to compensate for these acts of violence with their children, resulting in more positive parenting behaviours (Letourneau, Fedick, & Willms, 2007). Finally, in a recent survey, researchers found that parenting quality was variable depending on whether women had experienced partner abuse in the past or were currently experiencing violence (Casanueva, Martin, Runyan, Barth, & Bradley, 2008), and that current experiences of abuse appear to be more detrimental to parenting outcomes. It is this variability in the findings of the effects of adult abuse on parenting (compared to the more severe and longstanding effects of childhood abuse, especially if this abuse continues into adulthood) that suggests adult abuse may be less detrimental to parenting outcomes.
Although empirical studies on the impact of chronic abuse on women's treatment progress are lacking, it is also important to recognize that women who have suffered early abuse continuing into adulthood, compared to women who have experienced abuse later in life, not only may exhibit more parenting deficits, but will likely have more difficulty progressing in parenting intervention programs. Given a developmental psychopathology perspective, which stresses the cumulative and more detrimental effects of trauma, it is plausible to suggest that women with chronic abuse histories may suffer from higher levels of cognitive and social-emotional impairment, compared to women whose victimization began in adulthood, and which is likely impacting their treatment success. Specifically, within this developmental framework, women who have been chronically abused from childhood into adulthood, have likely suffered many developmental failures in childhood, of which have been exacerbated over time, and may result in severe difficulties in social competence, self-esteem, emotional adjustment and intellectual functioning (Conaway & Hansen, 1989; Finkelhor, 1995; Kendall-Tackett, et al., 1993; Kolko, 1992) Due to the intensified effects of a longstanding history of these developmental failures, and accompanying psychopathology, it is reasonable to expect that chronically abused women’s heightened cognitive and social deficits, compared to women who suffered less harmful effects, may impact their capacity to make substantial treatment gains. For instance, deficits across these areas of functioning have likely impacted women’s ability to develop an insight into their parenting difficulties, which is an important first step in order to make change possible. Also, their capability to engage with others and fully participate in treatment is likely more affected than women who have experienced late onset abuse, as well as
their capacity to develop the necessary problem solving and coping skills to help facilitate treatment success.

**Parenting Interventions**

Women with current and historic abuse are natural targets of parenting intervention programs. Many parenting programs are available in variety of settings that help parents develop the necessary skills to guide their children’s healthy development. In general, these programs have been found to be effective in reducing child behaviour problems (Barlow & Stewart-Brown, 2000; Richardson & Joughin, 2002), improving mothers’ psychological wellbeing (i.e., decreasing anxiety and depression), and increasing women’s self-esteem (Barlow, Coren, & Stewart-Brown, 2002). Recent research has focused on identifying the factors that make these parenting programs effective; these include rehearsal of newly learned parenting skills, developing strategies to build positive relationships with their children (Hutchings, Gardener, & Lane, 2004), incorporating parent-child play, encouraging parents to share their parenting experiences with others, and creating an environment where women’s parenting difficulties are normalized (Scott, 2010). A parenting program that subscribes to many of these principles is the Incredible Years program (Webster-Stratton, 1984). This program is seen as a model parenting program, particularly for families with young children, and has been found to help promote children’s social-emotional competence, treat child behavioural problems, improve parent-child interactions and increase parenting functioning (Webster-Stratton & Reid, 2006). These programs, however, are designed to address mainstream parenting problems and are less likely to be effective with special populations. Research has also indicated that adapting these
programs to specific populations can be problematic, often reducing treatment effects (Mihalic, Fagan, Irwin, Ballard & Elliot, 2002).

Program effectiveness concerns combined with a clear association between experiencing abuse and poor parenting have led to the development of parenting intervention programs specifically for adults with an abuse history. To date, there are a number of community-based programs that specialize in working with abuse victims; however, there appears to be a limited amount of research evaluating their effectiveness (Follette, Follette, & Alexander, 1991; Sullivan, Egan, & Gooch, 2004). This is partly because many of these programs are in their infancy, especially programs that target parenting after domestic violence (see Sullivan et al., 2004 for a review). Nevertheless, some intervention research on mothers with sexual and/or physical abuse histories has produced promising results, particularly when these programs target improving mothers’ self-esteem, developing a more positive attitude toward their children, increasing parenting satisfaction (Hiebert-Murphy & Richert, 2000) and lowering parenting stress (Sullivan et al., 2004). Although these programs adopt many of the effective strategies used by mainstream programs, such as The Incredible Years (Webster-Stratton, 1984), they differ in their ability to target specific parenting difficulties associated with trauma history. Women attending these programs are often still in the recovery process, while trying to manage the challenges associated with parenting. Intervention programs that provide a therapeutic component in the context of abuse, while also addressing dimensions of parenting, are valuable. Allowing women to process their trauma, while building upon their parenting skills and developing stronger relations with their children, has been purported to enhance mothers’ parenting competence (O’Dougherty Wright et al., 2012). These programs also attempt to
normalize women’s parenting problems connected to their abuse. More specifically, they help women identify the triggers typically associated with their children as a result of the abuse and assist in establishing a “new normal” with regards to feelings and behaviours associated with parenting. These programs also help women develop healthy mothering models as well as appropriate coping strategies to handle the difficulties that may arise within the context of abuse (O’Dougherty Wright et al., 2012).

**Statistical and Clinical Significance of Change**

To be able provide a broader picture of the change occurring in parenting intervention programs, they should be empirically evaluated in a number of different ways. Statistically significant change is commonly used to determine the effectiveness of intervention programs (i.e., identifying a significant difference in group means) and assessing the magnitude of change (i.e., how much change occurred in these groups from pre to post intervention). However, a criticism of this approach is that it does not assess individual variability in treatment response (Jacobson & Truax, 1991) and more importantly, it is unable to assess the practical value of treatment and how it affects individuals’ daily living (Kazdin, 1999). A highly regarded method for investigating individual treatment response is Jacobson and Truax’s (1991) Reliable Change Index (RCI). The RCI value is calculated on the variance of the normative comparison group, and accounts for measurement error. Specifically, this statistic is used to determine whether there has been a statistically significant change (based on the reliability of the measure) in the individual’s scores pre- versus post-intervention and whether such change meets a defined threshold for normative functioning. Reliable and positive change is attributed when a client’s
post-treatment score exceeds this standardized RCI value AND there is an improvement in the client’s level of functioning. As recommended by Jacobson and colleagues (Jacobson, Roberts, Berns & Mc Glinchey, 1999), when individuals meet these criteria they can be classified into the following two groups: 1) Recovered, where RCI is significant AND an individual’s post-test scores are no longer in the dysfunctional range and 2) Improved, where RCI is significant AND scores reflect change in the positive direction but still remain in the clinical concerning range. If individual negative change is detected, clients are classified as 3) Deteriorated, where RCI is significant AND individuals who were functioning in the normative range pre-intervention are now functioning in the dysfunctional range, or 4) Worsened, where RCI is significant AND individuals’ scores at the beginning of treatment are better than their scores post-treatment. Finally, 5) No Change is recorded when RCI does not reach significance.

Objectives and Hypotheses

Given that mothers with a history of abuse tend to have parenting difficulties, and could likely benefit from parenting interventions specifically designed for them, this study sought to explore the effectiveness of a parenting intervention program for abused women. Drawing from a developmental psychopathology perspective and a model of cumulative trauma, this study examined the effectiveness of a parenting program for women who have experienced trauma at various times throughout their life. More specifically, this research project aimed to evaluate both statistically significant and clinically significant change in parenting competencies after participation in this intervention program, and to assess the role of trauma history as a moderator of treatment effects. First, I hypothesized that participation in this mothering program
would lead to statistically significant changes in parenting characteristics. I also expected these changes to be clinically significant, whereby a large proportion of women would return to normative levels of functioning after receiving treatment. Second, I anticipated initial parenting differences between women who had experienced continuous abuse (from childhood into adulthood), and women whose abuse experiences began later in life (youth and/or adulthood). I expected that women with continuous abuse would show greater parenting deficits across parenting measures. Finally, I hypothesized that participation in an intervention would lead to more positive changes for women who have experienced late onset abuse, than for women who have experienced continuous abuse (childhood into adulthood).
Chapter 2: Method

Participants

The Child Development Institute, a children’s mental health agency in Toronto, provided permission for secondary data use for this research project. All participant information was collected from women who had attended the Mothers in Mind™ parenting intervention program in the Greater Toronto Area (GTA) since 1998. In total, data for 112 women were provided for analysis. Of these women, 78 completed a demographic questionnaire, 109 completed a Pre-test measure and 60 completed a Post-test survey. In total, 57 women completed both pre-intervention and post-intervention parenting surveys. Considerably more Pre-tests than Post-tests were completed: in total, 49 more women completed a survey at pre-test than at post-test. It is unclear why this large mismatch between Pre and Post-test measures exists, (i.e., whether it was due to treatment attrition or because women simply did not complete the surveys).

Of the 78 women that completed demographic questionnaires there was missing data from 4 of these surveys reducing the sample size to 74 for the following descriptive data. The mean age of mothers ($N=74$) in this sample (was 37.07 years ($SD = 6.72$, range: 17 to 44). The highest level of education reported by caregivers ($N=74$) included: Grade 0-8: 4.1%; Grade 9-11: 25.7%; high school or GED: 17.6%; some college/university: 14.9%; college/university graduate: 31.1%; and post-graduate education: 6.8%. Annual household income before taxes ($N=65$) was reported as: below $15,000: 72.3%;$15,000 to $24,999: 10.8%;$25,000 to $40,999: 4.6%;$41,000 to $57,999: 6.2%;$58,000 to $80,000: 3.1%; over $80,000: 3.1%.

Mothers also identified with the following ethnicity status: White: 48%; Latin American:
13.5%; Black: 8.1%; Asian: 14.9% (which includes identification with any of the following; South Asian, West Asian, Southeast Asian, Filipino, Korean, Chinese, and “Other” (14.9%)). Nearly half of this sample (40.8%) reported that they have held in the past, or currently hold, immigrant or refugee status in Canada.

**Measures**

**Demographic questionnaire.** An in-house questionnaire was created to collect demographic information and women’s trauma background. Information pertaining to women’s history of trauma and basic socio-economic information (i.e., age, income, education, immigrant status and ethnicity) was provided for secondary use. To determine women’s trauma history they were asked to categorize their experiences based on timing of abuse (i.e., whether abuse occurred in any or all of these stages: childhood, adolescence, adulthood). For the purpose of this study, women’s abuse experiences were then categorized into two groups: 1) continuous abuse group (sexual and/or physical abuse experienced throughout the lifespan – childhood, adolescence and adulthood), or 2) late onset abuse group, whereby abuse was experienced in later adolescence and/or adulthood only. This questionnaire was provided to women during intake and completed once.

The majority of women attending this program reported having experienced sexual and/or physical abuse during various stages in their life. Of the 73 women who provided trauma information, 32 (44%) of women experienced continuous trauma, 22 (30%) of women experienced late onset trauma, 15 (20%) experienced early onset abuse, and 4 (6%) of women did not experience either sexual or physical abuse. All of the women that completed pre-
intervention and post – surveys were included in this study (N=57) when evaluating overall program effectiveness; however, only women from either the continuous abuse group or the late onset trauma group were included in the moderation analysis.

**Parental sense of competence.** The competence scale is composed of 13 items and taps into one’s parental sense of competence surrounding practical child development knowledge and understanding of child management skills (e.g., “I often have the feeling that I can’t handle things very well” – reverse coded). Items are rated on a five-point Likert scale ranging from “Strongly Agree” to “Strongly Disagree.” High scores on this subscale can be associated with doubtful feelings about being a parent (i.e., the role being less fulfilling than expected) and generally feeling overwhelmed as a parent. The competence scale is from the Parenting Stress Index (PSI; Abidin, 1995) and is commonly used to assess sense of competence related to parenting (Jones & Prinz, 2005). The clinical cut off score for this scale is 35. Past studies reported a reliability coefficient for this scale of $\alpha = .83$ (see PSI manual, Abidin, 1995). For the current sample, internal consistency coefficients were also $\alpha = .83$, which represents good internal consistency. The competence scale from the PSI (Abidin, 1995) was completed pre- and post-intervention.

**Perceptions of Attachment.** The attachment scale consists of 7 items and assesses two main issues: parent’s perceptions of ‘emotional closeness’ with their child as determined by a lack of warmth in their perceptions of care-giving (e.g., “I expected to have warmer and closer feelings toward my child(ren) than I do and this bothers me” – reverse coded), and parent’s ability to effectively evaluate their child’s emotional and practical needs (e.g., how easy is it for
you to understand what your child(ren) wants or needs?”). Items are rated on a five-point Likert scale ranging from “Strongly Agree” to “Strongly Disagree”, except for the question asking mothers to evaluate how easy it is to understand their children’s needs, which is rated from “1 - very easy” to “5- I usually can’t figure out what the problem is”. The attachment scale is from the Parenting Stress Index (PSI; Abidin, 1995). High scores on this subscale suggest problems in the two previously indicated areas. The clinical cut off score for this scale is 16. Prior studies reported acceptable reliability coefficients for the attachment scale: $\alpha = .75$. For the current sample, the internal consistency coefficient was $\alpha = .49$, which is poor. The attachment subscale of the PSI (Abidin, 1995) was also competed pre- and post-intervention.

**Procedures**

**The Mothers in Mind™ Parenting Intervention Program.** This is a 10-week parenting intervention program for mothers who have a history of abuse, and their children aged 0-4. Mothers are either referred to the program from family service agencies, child protection agencies and shelters, or are self-referred. This group-based intervention program is founded on attachment theory principles and focuses on improving parent-child interactions, while addressing practical parenting strategies and child discipline problems. More specifically, this program is designed to enhance parenting skills, strengthen parent-child relationships and reduce parenting stress, in the context of women’s trauma histories using a number of psycho-educational and behavioural approaches. This program advises weekly attendance for the entire 10 weeks, and runs for approximately two hours each week. The topics included are: Child Play, learning how to use the principles of child led play; Feelings, how to better identify children’s
expressed emotion; Managing Stress, learning practical strategies; Child Development; Safety, discussing how women can protect their family’s physical and emotional safety; Sensitivity and Attunement, understanding how to respond to children in a sensitive and timely manner; Techniques to Foster Self-esteem, which is often difficult for women with abuse histories, and finally Self Care, how mothers can care for themselves. All of these topics are covered in the context of women’s abuse histories. That is, where appropriate participants discuss how past abuse experiences can trigger certain parenting responses in relation to these weekly topics, which helps normalize the parenting difficulties that women may be facing. Typically, mothers attend the entire two hour session with their children; however, when difficult circumstances arise (i.e., if a child is having extreme behavioral problems, or women are feeling overwhelmed) opportunities for individual discussion away from children are provided. It is important to note that previous preliminary analyses have been conducted by the Child Development Institute agency in order to begin to evaluate this program’s overall effectiveness. To date, preliminary results yield some potential, particularly in the domain of women’s sense of parenting competence. However, continued program evaluation efforts are required, especially as it relates to increasing the sample size for this population to be able to better detect treatment effects.

**Statistical Analyses**

Statistical significance testing was used to determine the effectiveness of this mothering program, as well as whether women’s abuse history moderated treatment receptiveness. Magnitude of change was also assessed. To gain a better understanding of treatment effects at
the individual level, clinical significance testing was also conducted. These analyses are described in more detail below.

**Statistical significance.** To test for overall program effectiveness, paired *t*-tests were used to establish whether scores on the parenting competence and attachment measures were significantly different from pre-intervention to post-intervention. In addition, magnitude of change between pre- and post-scores, (i.e., effect sizes for the mean differences), were computed using Cohen’s (1992) *d* statistic. Interpretation of the size of these effects followed Cohen’s (1992) proposed criteria: small (0 - 0.29), medium, (.30 - .79) and large, (≥.80).

**Reliable Change Index.** Individual clinical significance was calculated using Jacobson’s and Truax’s (1991) Reliable Change Index (RCI) method. First, and following the formulas outlined in Appendix A, the standard error of measurement was calculated. Similar to Lishak’s and Scott’s (2010) computations, internal consistency coefficients were used to calculate error of measurement due to the unavailability of test-retest reliability scores. Next, for each individual, the difference between pre- and post-test scores was divided by the Standard Error of Measurement to produce individual RCI scores. RCIs greater than the absolute score of 1.96 were considered significant. Following Jacobson’s and Truax’s (1991) categorization method: 1) women who demonstrated significant positive change AND moved from the clinical range to below the clinical cut off were considered *Recovered*; 2) women who made significant positive change but continued to remain in the clinically concerning range were considered *Improved*; 3) women with significant RCI’s and scores below clinical cut off before treatment, but who yielded scores in the clinical range post-treatment, were considered *Deteriorated*; 4) women with significant RCIs whose scores at the beginning of treatment were better than their
scores at end of treatment were classified as *Worsened*. The remaining women were grouped into the “*No Change*” category. The clinical cut off information was based on normative data and obtained directly from the PSI manual (Abidin, 1995). For reliability coefficients and clinical cut-off scores refer to Table 1.

**Moderation Analyses.** Next, ANOVA’S were computed to evaluate whether women who had suffered chronic abuse throughout their lives, compared to women who experienced late onset abuse, had significantly different scores across all parenting measures upon entering the program. Finally, a repeated measures ANOVA was used to determine whether there was a moderator effect (interaction) between timing of trauma (i.e., continuous forms of abuse versus late onset abuse) and change from pre- to post-intervention. Statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 21. The significance level was set at 0.05.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Normative Mean (SD)</th>
<th>N</th>
<th>Reliability</th>
<th>Clinical Significance Cut-off (CSC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI-CO</td>
<td>29.1 (6.0)</td>
<td>2,633</td>
<td>.83</td>
<td>35</td>
</tr>
<tr>
<td>PSI-AT</td>
<td>12.7 (3.2)</td>
<td>2,633</td>
<td>.75</td>
<td>16</td>
</tr>
</tbody>
</table>
Chapter 3: Results

An outlier analysis was completed using Z score procedures and criteria suggested by Field (2009); no significant outliers were found. All variables satisfied skewness and kurtosis requirements for normality and assumptions were met for homogeneity of variance. For missing values, mean substitutions were imputed for all cases where there was no more than 15% of information missing from the relevant measure.

Overall Program Effectiveness: Hypothesis 1.

Consistent with hypotheses, participation in the Mothers in Mind™ program \((n=52)\) contributed to significant changes in sense of parenting competence from pre- to post-intervention \((M = 34.51, SD = 8.73 \text{ vs. } M = 32.69, SD = 32.69)\), \(t(52) = 2.729, p < .05\). The amount of change represented is a medium effect size, with \(d = .70\). Contrary to expectations, mothers’ attachment scores \((n= 57)\) did not significantly differ from pre-test \((M = 13.56, SD = 3.84)\) to post-test \((M = 13.35, SD = 3.53)\), \(t(57) = .471, p > .05\).

In looking at individual treatment response (see Table 2), 52% (27) of women scored within the clinical range on the competence scale before intervention. Of these women, one quarter made substantial treatment gains, as 15% (4) recovered (moved to the normative range) and 11% (3) improved (but did not move to the normative range). There were no women identified who deteriorated or worsened as a result of the treatment. For the attachment scale, 28% (16) scored within the clinical range. Of these women, 31% (5) were considered recovered and none were deemed improved. Similar to the results evaluating parent’s sense of competence, there were no women who reported negative treatment effects (i.e., worsened or deteriorated).
Due to the low reliability coefficients (α = .49) of the attachment scale, additional data analyses were conducted to explore the possibility that measurement error masked treatment effects. To aid in this endeavor, exploratory analyses were conducted using principal component analysis, which is considered a sound psychometric procedure (Field, 2009). This method assesses the linear components (also called factors) existing within the scale and how these variables contribute to that component (Field, 2009). The goal of using this procedure is to determine whether there is a more reliable cluster of items that should be used for further statistical analyses. In principal components analyses of items making up the attachment scale, three components had eigenvalues of Kaiser’s criteria of over one, and in combination explained 60.31% of the variance. The scree plot displayed inflections to support three components; however, given the limited number of items proposed for components two (2 items) and three (1 item), only component one (which consisted of 4 items; see Appendix B) was included for further analyses. Paired t-tests were then conducted on component 1 of the attachment scale.
Although reliability was increased to more acceptable levels (α = .62), findings were consistent with the original t-test analysis. Specifically, women’s perceptions of attachment with their children did not significantly change from pre-test (M=7.88, SD=3.02) to post-test (M=7.84, SD=2.68), t(49) = .112, p = .911.

**Initial Quality of Parenting Across Trauma Groups: Hypothesis 2**

ANOVAs yielded no initial significant differences in parental sense of competence between trauma groups prior to receiving treatment. More specifically, there were no significant differences between women who experienced continuous abuse (n=31, M=33.96, SD=8.85) and women who experienced late onset abuse (n=20, M=31.57, SD=8.75) before treatment, F(1, 51) = .897, p > .05. There were also no significant differences in women’s initial attachment scores between those who experienced continuous abuse (n=31, M=13.13, SD=3.54) and those who experienced abuse later in life (n=22, M=12.77, SD=3.08), F(1, 51) = .126, p > .05.

**Timing of Abuse as a Moderator of the Parenting Intervention Program: Hypothesis 3**

A repeated measures ANOVA was conducted to evaluate whether timing of abuse moderated treatment effects. Contrary to this hypothesis, there were no interaction effects between abuse (continuous abuse versus late onset abuse) and the intervention program. Specifically, parenting competence was not significantly affected by timing of abuse, F(1, 34) = .636, p > .05. Similar findings were obtained for mother’s attachment perceptions in relation to timing of abuse, F(1, 34) = .724, p > .05. In other words, the effectiveness of this parenting
intervention program was not significantly different for women who were continuously abused than for women who experienced abuse later in life.
Chapter 4. Discussion

This study was designed to examine the effectiveness of a parenting intervention for women with a history of abuse. It specifically explored how earlier traumatic experiences, and more importantly the continuity of these experiences, impact women’s parenting abilities and receptiveness to treatment, compared to women who were abused later in life. Overall, the findings did not support the hypothesized effects of abuse chronicity. To gain a better understanding of these results, first, outcomes of overall treatment effectiveness will be discussed, including the amount of individual change women experienced after participating in this program. Next, parenting difficulties between the two abuse groups prior to beginning the intervention will be elaborated on, and finally, treatment effects for women who experienced continuous abuse compared to those who experienced later abuse will be reviewed.

Overall Program Effectiveness

One of the goals of this study was to examine the overall effectiveness of the Mothers in Mind™ program. Results indicate partial support for the effectiveness of this program, as there was a treatment effect for women’s sense of parenting competence; however, women’s perceptions of attachment with their children did not significantly change. The Mothers in Mind™ program primarily targets parenting difficulties associated with previous trauma and helps mothers strive toward developing a healthier parenting model. With its unique ability to focus on improving parenting competencies, while normalizing and validating past parenting problems in the context of trauma, it is not surprising that women’s feelings of uncertainty related to parenting were significantly reduced after treatment.
Another core feature of the program is to help improve the mother-child bond through teaching mothers how to be more sensitive and attuned to the needs of their children. The non-significant findings in this area were unexpected. There are a number of possible explanations for these non-significant findings. First, it may be unrealistic to expect to create change in attachment, or even in mothers’ sense of attachment, in 10 weeks. Based on the evidence found in another attachment-based intervention program, a mother’s ability to better evaluate and be more warm and responsive to her children’s needs has taken up to four months to develop (Page & Cain, 2009). Another possible explanation is that even if there is an impact on attachment, these changes may occur more powerfully well after the intervention has ended. Specifically, and in keeping with child development perspectives (Stroufe & Rutter, 1984), this bi-directional relationship between mothers and their children may require more time to change previously learned negative interaction patterns, which only then can translate into more positive perceptions of the attachment relationship that mothers have with their children. Finally, mothers could also take longer to develop more positive perceptions of attachment due to previous trauma histories, as many of the women’s own internal working models of attachment are likely disrupted as a result of these earlier experiences (Lyons-Ruth & Block, 1996). The majority of the sample (approximately 65%) of mothers had experienced early childhood abuse, which has likely impaired their care-giving systems and their ability to provide their children with a secure base (O’Dougherty Wright et al., 2012). Though this moderating effect did not receive support in the current study, it is reasonable to expect that the ability to effectively evaluate their children’s needs and establish positive close relations with them could be more
difficult for these women, and they may require more time and support to develop healthy attachment relations with their children.

**Individual Clinical Significance**

Another goal of this study was to evaluate the individual clinical gains achieved by women participating in this program. Overall, just over half of the women (52%) scored within the clinical range on the competence scale before intervention, with over a quarter (26%) making substantial treatment gains. None of the women were identified as deteriorated or worsened as a result of the treatment. For the attachment scale, just over a quarter of women (28%) scored within the clinical range and of these women, nearly a third (31%) were considered recovered. None of these women were identified as improved or deteriorated or worsened as a result of participating in the treatment. Considering that all of the women attending the program had experienced traumatic pasts, it was expected that more of them would score within the clinical range. Taking a developmental perspective into account, and the fact that many of these women have experienced childhood and/or continuous forms abuse, higher levels of dysfunction were anticipated. However, further investigation revealed that many of these women scored close to the clinical cutoff, particularly on the competence scale, indicating that many of the women who scored at subclinical levels could have been experiencing a level of parenting difficulty that was very similar to the women whose scores were in the clinical range.

For women who did exceed the clinical cut off scores, we can use the reliable change statistic as a marker of success. We can use this indicator as a way to compare our results with
others, especially those studies where participants were chosen from a traumatized population and/or from populations similar to ours who have experienced multiple disadvantages. For example, we can make a direct comparison of individual improvement across parenting competence between the Mothers in Mind Program™ and the Home-Start Program (a program for mothers experiencing parenting difficulties and social disadvantage; Asscher, Deković, Prinzie, & Hermanns, 2008). The Home-Start program demonstrated individual gains in parenting competence of 14%, which is similar to the gains reported for Mothers in Mind™ (15%). Also, reported gains in parental responsiveness and maternal warmth in the Home-Start program (6-9%), which is comparable to the attachment domain in Mothers in Mind™, were also similar (8%). Another treatment study investigating reliable change in women’s trauma-related symptoms after sexual abuse (Sikkema et al., 2004) found slightly increased improvement rates (15-22%), compared to either Mothers in Mind™ or Home-Start; however, they also experienced higher deterioration rates (up to 9%), whereas Home-Start reported 0-5% (measure dependent) and Mothers in Mind™ reported zero deterioration across both measures.

Considering the high levels of trauma experienced by women in the current study, a large proportion of women achieved individual and meaningful change post intervention. These reported gains are also consistent with the available research in both traumatized and non-traumatized populations (Sikkema et al., 2004; Asscher et al., 2008). Important to mention is that the majority of the women demonstrating reliable improvements can be considered ‘recovered’ after completing the program. That is, these women moved from the clinically concerning range to more functional levels of parenting after treatment. These findings suggest that this program could be more beneficial for a small subset of women with the greatest
problems. In particular, the overall positive impact of treatment on mothers’ sense of parenting competence helped move many of these women with the most severe problems into the normative range. However, further research is required to determine what other factors are contributing to these improvements for these particular women.

**Initial Parenting Quality across Trauma Groups**

Contrary to our second hypothesis, there was no significant difference in parenting skill at program entry between women who experienced continuous abuse and those who experienced abuse later in life. These were unforeseen findings given the documented negative effects of cumulative trauma on parenting, compared to discrete accounts of abuse later in life. In light of these results, we suspect that other variables such as parental psychopathology and poverty may be operating alongside the parenting difficulties associated with women’s traumatic pasts, and making it difficult to differentiate the effects of patterns of abuse on parenting abilities between these two groups.

Women with traumatic pasts are likely to experience mental health problems in adulthood, which can negatively impact their parenting abilities. For instance, parental psychopathology can impact mothers’ care-giving styles and the amount of sensitivity they display toward their children, contributing to a number of problems in the mother-child relationship (Hecht & Hansen, 2001). A developmental psychopathology explanation, such as one outlined here, focuses on the impact of *individual level* variables on human behavior and outcomes. However, as acknowledged by developmental psychopathologists and others, other layers of influence can also contribute to behaviour and functioning (Belsky, 1980; Cicchetti & Rizley, 1981). Other
impacts of past trauma that can negatively affect parenting include those found within the family context (e.g., in families experiencing financial hardship), the communities where families live (e.g., living in poor and disadvantaged neighbourhoods where there are limited resources, including a lack of social support), and broader social issues (e.g., a difficulty in navigating through and accessing government resources, including medical care in times of need). Often, these layers combine and interact to exacerbate their effects. For instance, parental psychopathology has been found to co-exist with such issues as poverty, further heightening the negative effects of poor mental health (Hecht & Hansen, 2001), and perhaps explains why there is some overlap in the type of parenting problems found in abused and/or impoverished women. Similar to mothers who are abuse survivors, mothers who face poverty often subscribe to harsh disciplinary practices and a lack of parental warmth (Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000). In addition, a lack of family resources is highly correlated with parenting stress (Burrell, Thompson, & Sexton, 1994).

In interpretation of the results of the current study these are important issues to consider, since 75% of the current sample was living well below the poverty line. The stress associated with poverty is also ongoing and persistent for these women (Hecht & Hansen, 2001), as they are likely facing a number of daily struggles associated with their lack of financial means. For instance, these mothers may be living in sub-standard housing or having difficulty in meeting their children’s basic needs for food and/or medical care, which is likely causing them a great deal of distress, and impacting their ability to parent competently. Another important risk factor that is likely negatively influencing some women’s parenting abilities is their immigration and refugee status. Nearly half of the women in this current sample have held in the past, or
currently hold, immigrant or refugee status in Canada, which can contribute to the parenting difficulties that these women may be facing. For instance, women who are currently involved in immigration proceedings may be experiencing a great deal of stress associated with trying to navigate through these complex legal processes, especially if they are just learning the English language. It is also logical to expect that many newcomers would have a limited social and professional network after only being in Canada a short time, and when combined with language barriers, could prove difficult for these women to access the support they need for themselves and their children. Situations such as these likely contribute to heightened stress in these women, overloading their capacity to parent successfully (Abidin, 1992).

Given the possible effects of poverty and stresses associated with being a newcomer to Canada, it is possible that contextual factors may be playing at least as significant a role in the parenting challenges of this population of women and their abuse history. In other words, it is reasonable to speculate that, within our sample, similarities in contextual risk factors may have overwhelmed any differences at the individual level at program entry, as participants from both trauma groups likely had common experiences of high levels of psychopathology and incomes well below the poverty line.

**Timing of Abuse as a Moderator of the Parenting Intervention Program**

Finally, and also divergent from the study’s hypotheses, the program was not differentially effective for women who had experienced late onset trauma compared to women with continuous trauma experiences. Certainly, the above-stated rationale regarding a combination of mental health problems and social disadvantage is likely contributing to some of
the difficulty in differentiating treatment effects. However, seeing that the mothering program is targeted to help reduce some of the difficulties associated with poverty (i.e., reducing parenting stress), it is likely that additional factors are operating within the treatment setting. More specifically, it could be the heterogeneity of women’s traumatic pasts that is contributing to their overall positive parenting changes, and why we are unable to detect moderating effects of timing of abuse. For example, differences in vulnerabilities, such as having varying coping strategies, conflict areas, and interpersonal styles, have actually been found to promote change in treatment settings (Yalom & Leszcz, 2005). A diversity of experiences within therapeutic group settings helps provide clients with different perspectives, promote alternate problem solving and develop further insight into their problems (Hornsey, Dwyer, & Oei, 2007). Recent work by Cinnamon, Muller and Rosenkrantz (2012) provided further support for this explanation by exploring the extent to which poly-victimization and trauma severity predicted a change in treatment. Similar to this current study, Cinnamon and colleagues found that different types of abuse experiences did not predict treatment response, and that their treatment was similarly effective for those who experienced varying levels of victimizations and severity of traumatic experiences.

Limitations

There are a number of limitations to consider in this study. First, a comparison group was not used so we are unable to offer a reliable benchmark with which to compare our results. Second, seeing as we are unable to discern why there is such a large discrepancy in the number of pre- and post -intervention surveys (i.e., whether it was due to women dropping out of the
program or if women did in fact remain in the program but did not complete surveys), we cannot say whether treatment had a positive effect or whether women whose lives were improving anyway, due to external factors, were more likely to continue to come to the intervention or complete post-group surveys. Third, there were no follow-up assessments beyond the intervention, so we are unable to ascertain whether the positive changes found were maintained and/or if there were further improvements well after the intervention had ended. Also, considering the relatively small sample size of nearly 60 women, there was limited power to detect any overall changes post-intervention. An even smaller sample size was used to compare the two abuse groups when testing for initial parenting differences and a moderation of treatment effects. This sample consisted of approximately 20 women in each of the abuse groups, which further reduced power and therefore lowered the ability to detect significant differences between these two groups, and a moderation of treatment effects.

Another important issue to consider is that of social desirability bias, as this could cause reporting difficulties in women’s self-report questionnaires. Many of the mothers who participated in the program were either previously, or are currently, working with protective child services where parenting quality is of the utmost importance. Women’s concern about having their parenting abilities assessed may lead to a self-report bias and social desirability effects. In this particular situation, where women could be overestimating their parenting abilities, the need for independent measures evaluating women’s parenting competencies is crucial. That is, by including other raters of parenting competencies (i.e., by day care workers or through observation), any biases in the results can be reduced.
Finding an effect of intervention on attachment can also be called into question due to measurement issues. Low reliabilities found within the attachment scale could be causing measurement problems and masking treatment effects. Poor reliability calls into question how well the items on the attachment scale hang together and subsequently, whether they are effectively measuring women’s perceptions of attachment for this population. Although reliability was somewhat increased when some of the items were discarded after a factor analysis for this scale, internal consistency was still poor. More importantly, the best fitting group of items derived from this factor analysis captured a much smaller aspect of mother-child relations, and therefore is less suitable for measuring program effectiveness in this domain.

Finally, as indicated in the section on individual clinical significance, although a number of women appear to be experiencing clinical or sub-threshold clinical levels of difficulty associated with their parenting, there also appear to be some women scoring well within the “normal range,” indicating there are no concerns with their sense of parental competence or perceptions of attachment with their children. In considering the detrimental outcomes of abuse, especially for those who have encountered abuse in childhood and/or experienced abuse continuously, these results are questionable. In order to better evaluate the parenting challenges that most of these women are likely facing, it is suggested that a more extensive range of measures be included. As mentioned earlier, this includes additional independent measures and a more sensitive measure of attachment, or perhaps one that is better able to detect the progress made in the mother and child relationship throughout intervention – one which is more aligned with program goals. Also, seeing that the main aim of this intervention program was to target parenting difficulties in the context of past abuse, it is recommend that measures are included
that target the improvement of these specific parenting difficulties associated with this past abuse. Being able to measure these unique elements is not only more aligned to intervention goals, but could also contribute to more positive findings in the future.

**Future Directions and Conclusion**

Future research in this area should include a more extensive battery of measures to evaluate this program effectively. Specifically, a more reliable and comprehensive measure to assess improvements in the mother-child relationship is required. A measure that is sensitive to change among this population is ideal, as it is likely that only small relational improvements can be achieved within this 10-week program. Measures that better target the main goal of this program (i.e., parenting challenges in the context of abuse) are also recommended. Next, in addition to increasing the sample size, future studies should also include randomized assignment of potential clients to the treatment group and a control group. Also, dropout rates should be tracked and included in future studies when considering the effects of intervention and a follow up data collection point at least 6 months after the intervention has ended is also recommended. Finally, the inclusion of more program segments to target the difficulties associated with socioeconomic hardship may be warranted.

Notwithstanding the outlined limitations, this program holds potential in helping women with traumatic histories improve their quality of parenting. This mothering program provides women with an opportunity to explore their parenting difficulties within the context of their past trauma, aiding in women’s overall path to recovery. In particular, improving women’s parenting
competence – that is, women’s perceptions regarding their ability to parent their children – may have long-term positive outcomes for these women, (Deković et al., 2010).
References


Appendix A. Formulas

Reliable Change Index (RCI) formulas (taken from Jacobson & Truax, 1991).

Individual RCIs (using total individual pre and post scores ($X_{pre}$, $X_{post}$) and standard deviation of normative comparison group ($S_{NC}$)

\[
RCI = \frac{X_{post} - X_{pre}}{S_{diff}}
\]

\[
S_{diff} = \sqrt{2(SE)^2}
\]

using test-retest reliability ($r_{xx}$)

\[
SE = S_{NC} \sqrt{1 - r_{xx}}
\]

or using internal consistency ($\alpha$)

\[
SE = S_{NC} \sqrt{1 - \alpha}
\]
Appendix B. Summary of Exploratory Factor Analyses for the Attachment Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>67. The number of children I have now is too many</td>
<td>.739</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65. When I was young I never felt comfortable holding or taking care of children</td>
<td>.714</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63. I expected to have closer and warmer feelings toward my child than I do and this bothers me.</td>
<td>.665</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62. It takes a long time for parents to develop close, warm feelings for their children</td>
<td>.571</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61. How easy is it for you to understand what your child wants or needs</td>
<td></td>
<td></td>
<td>.781</td>
</tr>
<tr>
<td>64. Sometimes my child does things to bother me just to be mean</td>
<td></td>
<td></td>
<td>.733</td>
</tr>
<tr>
<td>66. My child knows I am his or her parent and wants me more than other people</td>
<td></td>
<td></td>
<td>.934</td>
</tr>
<tr>
<td><strong>Eigenvalues</strong></td>
<td>1.84</td>
<td>1.28</td>
<td>1.10</td>
</tr>
<tr>
<td><strong>% of variance</strong></td>
<td>26.27</td>
<td>18.32</td>
<td>15.72</td>
</tr>
<tr>
<td><strong>α</strong></td>
<td>.62</td>
<td>.37</td>
<td></td>
</tr>
</tbody>
</table>

*(N=96)*
Appendix C. Ethics Approval

UNIVERSITY OF TORONTO

OFFICE OF THE VICE PRESIDENT, RESEARCH

PROTOCOL REFERENCE # 28784

April 8, 2013

Dr. Kateena Scott
DEPT OF HUMAN DEVEL. & APPL.
PSYCHOLOGY
OISE/UT

Ms. Amanda Dyson
DEPT OF HUMAN DEVEL. & APPL.
PSYCHOLOGY
OISE/UT

Dear Dr. Scott and Ms. Amanda Dyson,

Re: Your research protocol entitled, "Maternal abuse as a moderator of the effectiveness of an abuse intervention program"

ETHICS APPROVAL

Original Approval Date: April 8, 2013
Expiry Date: April 7, 2014
Continuing Review Level: 1

We are writing to advise you that the Social Sciences, Humanities, and Education Research Ethics B has granted approval to the above-named research protocol under the REB’s delegated review process. Your protocol has been approved for a period of one year and ongoing research under this protocol must be renewed prior to the expiry date.

Any changes to the approved protocol or consent materials must be reviewed and approved through the amendment process prior to its implementation. Any adverse or unanticipated events in the research should be reported to the Office of Research Ethics as soon as possible.

Please ensure that you submit an Annual Renewal Form or a Study Completion Report 15 to 30 days prior to the expiry date of your current ethics approval. Note that annual renewals for studies cannot be accepted more than 30 days prior to the date of expiry.

If your research is funded by a third party, please contact the assigned Research Funding Officer in Research Services to ensure that your funds are released.

Best wishes for the successful completion of your research.

Yours sincerely,

Sarah Wakefield, Ph.D.
REB Chair

Dean Sharpe
REB Manager

OFFICE OF RESEARCH ETHICS
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Appendix D. Copy of Pre/Post Measure

Child Development Institute

Mothers in Mind

Pre/Post-Group Parenting Survey

Please circle one response for each of the following statements. While you may not find a response that exactly describes your feelings, please circle the response that comes closest to how you feel.

1 = Strongly Agree  2 = Agree  3 = Not Sure  4 = Disagree  5 = Strongly Disagree

1. When my child came home from the hospital, I had doubtful feelings about my ability to handle being a parent
   1  2  3  4  5

2. Being a parent is harder than I thought it would be
   1  2  3  4  5

3. I feel capable and on top of things when I am caring for my child
   1  2  3  4  5

4. I can’t make decisions without help
   1  2  3  4  5

5. I have had many more problems raising children than I expected
   1  2  3  4  5

6. I enjoy being a parent
   1  2  3  4  5

7. I feel that I am successful most of the time when I try to get my child to do or not do something
   1  2  3  4  5

8. Since I brought my last child home from the hospital, I find that I am not able to take care of this child as well as I thought I could. I need help
   1  2  3  4  5

9. I often have the feeling that I cannot handle things very well
   1  2  3  4  5

10. It takes a long time for parents to develop close, warm feelings for their children
    1  2  3  4  5

11. I expected to have closer and warmer feelings for my child than I do and this bothers me
    1  2  3  4  5
12. Sometimes my child does things that bother me just to be mean
13. When I was young, I never felt comfortable holding or taking care of children
14. My child knows I am his or her parent and wants me more than other people
15. The number of children I have now is too many
16. I feel alone and without friends
17. When I go to a party, I usually expect not to enjoy myself
18. I am not as interested in people as I used to be
19. I often have the feeling that other people my own age don’t particularly like my company
20. When I run into a problem taking care of my children, I have a lot of people to whom I can talk to, get help, or advice
21. Since having children, I have a lot fewer chances to see my friends and to make new friends

For the following statements please circle your choice from 1 to 5.

22. When I think about myself as a parent I believe:
   1. I can handle anything that happens
   2. I can handle most things pretty well
   3. Sometimes I have doubts, but find that I can handle most things without any problems
   4. I have some doubts about being able to handle things
   5. I don’t think I handle things very well at all

23. I feel that I am:
   1. A very good parent
   2. A better than average parent
   3. An average parent
   4. A person who has some trouble being a parent
   5. Not very good at being a parent
24. What were the highest levels in school or college you and the child’s father have completed? (Please circle one response for each)

**Mother**

1. 1st to 8th grade
2. 9th to 12th grade
3. Some college/university
4. College/university graduate
5. Graduate or professional school

**Father**

1. 1st to 8th grade
2. 9th to 12th grade
3. Some college/university
4. College/university graduate
5. Graduate or professional school

25. How easy is it for you to understand what your child(ren) wants or needs?

1. Very easy
2. Easy
3. Somewhat difficult
4. It is very hard
5. I usually can’t figure out what the problem is