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Children's Social Competence: The Role of Maternal Scaffolding

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Children's Social Competence: The Role of Maternal Scaffolding

By

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Children's Social Competence: The Role of Maternal Scaffolding

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CHILDREN'S SOCIAL COMPETENCE

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ABSTRACT

The present study examined the association between maternal scaffolding behaviours on children's social skills among preschool children (3 to 6 years old). Using an ecological framework, the influence of parent (i.e., parent emotion socialization practices) and child characteristics (i.e., child temperament) on maternal scaffolding behaviours and children's social skills were also explored. A total of one hundred and five parent-child dyads from Southwestern Ontario participated in the study. Through laboratory visits, data were collected on children's temperament, children's social skills, and maternal emotion socialization practices (i.e., maternal distress reaction). Maternal scaffolding behaviors were assessed using a video-recorded parent-child planning task. Contrary to expectations, the findings did not reveal a significant positive association between maternal scaffolding behaviors and children's social skills. However, a significant positive association was found between children's social skills and children's temperament (i.e., children's effortful control and negative affect). A significant positive was also found between autonomy maternal scaffolding behaviours and children's effortful control. Regression analyses found that children's social skills emerged as a significant predictor for children's temperament (i.e., children's effortful control and negative affect). These findings extend current research on the role of parental scaffolding behaviours and children's development, specifically children's social competency. Furthermore, results also provide insights into early prevention initiatives for preschool children.

Keywords: Parent Scaffolding Behaviours, Children's Social Skills, Preschool years, Children's Temperament, Parental Emotion Socialization Practice

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Chapter I

Introduction

In Canada, children's mental health difficulties are one of the current leading causes of health concerns (Waddell et al., 2005; Georgiades et al., 2019). In 2005, it was estimated that 14% of Canadian children from the ages of 4 to 17 years at any time experience distress associated with a mental health disorder (Climie, 2015). However, the prevalence rates of these mental health disorders among children and youth have been on the rise (Wiens et al., 2020). In 2014, the Ontario Child Health Study found that approximately 18 to 22% of children aged 4 to 17 years old met the DSM-IV-TR criteria for a mental health diagnosis for at least a six-month period (Boyle et al., 2019). Presently, studies have shown that mental health rates have soared, with symptomology intensifying because of the secondary effects of the COVID-19 pandemic (e.g., major disruptions such as restrictions on social interactions; Hawke et al., 2021; Vaillancourt et al., 2021; Cost et al., 2021).

The prevalence of mental health disorders among children can lead to significant distress experienced in various domains of a child's life including, at home, school, and the community (Waddell et al., 2005). Furthermore, research has also shown that without effective treatment, children who face mental health concerns early in their development will likely experience distress persisting into adulthood (Mulraney et al., 2021; Singh et al., 2008). Given both the short-term and long-term implications of mental health concerns in children, this necessitates the need to examine potential protective factors against child psychopathology to develop early intervention and prevention initiatives.

One area of interest that has been widely studied in relation to children's mental health is children's socio-emotional development. In the research literature, adaptive socio-emotional development has been found to be predictive of mental health concerns and later life adjustment (Adela et al., 2011). Among young children, research has shown that normative socio-emotional development can reduce the risk of developing mental health disorders and buffer against the negative impacts of poor mental health (Dunsmore et al., 2013). For instance, Schultz and colleagues (2009) found that maltreated children with higher levels of social competence were associated with internalizing and externalizing symptoms in the normative range. Similarly, research has shown that deficits seen in young children's socio-emotional functioning have been linked to negative outcomes, including internalizing and externalizing problems (Huber et al., 2019; Segrin, 2000). Lower levels of socially competent behaviours observed in young children have also been linked to elevated risk for later adjustment problems, including lack of peer acceptance, academic underachievement, and criminality (Jones et al., 2015; Volling et al., 1993). As such, this highlights a need to examine factors that contribute to adaptive socio-emotional development, including social competency (Dunlap et al., 2006).

Social competence is defined as an individual's ability to effectively engage in social interactions and formulate meaningful relationships with others (Dodge, 1986; Hops, 1982). For preschoolers, social competency is linked to the acquisition and performance of social skills, such as engaging in prosocial behaviours and the absence of anti-social behaviours (Diener & Kim, 2004; Spence, 2013). Prosocial behaviours can be defined as intrinsically motivated behaviours that benefit others (e.g., sharing, cooperating; Eisenberg & Miller, 1987). The examination of children's social competence, specifically among preschool years (3 to 6 years old) is of importance, given that many aspects of social competence begin to develop, including

prosociality (Denham, 2008). In addition, the preschool years are also a critical period given that children first begin to interact and socialize with individuals outside the home, such as peers (Huber et al., 2019; Thomson et al., 2017).

In consideration of children's social competency, parent-child interactions are likely to play an important role in the development of adaptive children's socio-emotional functioning as parents are the child's earliest and most proximal social interactions (Landry et al., 2000). The quality of parent-child interactions has been shown to contribute to the early development of children's social competency (Clark et al., 2000; Sirois et al., 2019). Parent-child interactions viewed as supportive may foster the child's burgeoning regulatory capacities, including self-regulation. In the child development literature, the mediating role of children's self-regulation on the association between parent-child interactions and children's social competence has been well-supported (Diener & Kim, 2004; McDowell et al., 2002).

Parent scaffolding has been proposed to contribute to the development of children's social skills (Clark et al., 2013). In the present study, parent scaffolding is defined as a bidirectional guidance-related process, whereby a parent employs supports (e.g., transferring of responsibility) to assist a child in developing new skills and knowledge during challenging tasks (Bibok et al., 2009; Wood et al, 1976). In other words, these early parent-child interactions can facilitate children's developmental continuities by providing appropriate emotional support, assisting in the child's cognitive processes related to problem-solving, and promoting autonomy within the child (Neitzel & Stright, 2003; Salonen et al., 2007).

As such, to better understand mental health concerns occurring in young children, further research examining the role of parent scaffolding behaviours on children's social competence is needed (Mermelshtine, 2017). The aim of this study was to investigate the relationship between

the use of parent scaffolding behaviours and the development of social skills among young children. However, to take on a more ecological approach to studying children's social development, the study also explored associations between parent characteristics (i.e., parent emotional socialization practices) and child characteristics (i.e., child temperament) on parent scaffolding behaviours, and how it may ultimately impact children's social skills.

The following sections (Chapter II) will provide a detailed review of constructs examined in the study, including children's social competence, children's social skills, parent scaffolding, parent emotional socialization practices, and child temperament. Also, a literature review is presented on current research conducted examining the relations between parental scaffolding and children's social skills. In Chapter III, an overview of the methodology of the study is presented. In Chapter IV, the statistical analyses conducted, and study results are presented. Lastly, in Chapter V, the findings, implications, and limitations of the study are discussed.

Chapter II

Literature Review

Defining Social Competency

In broad terms, social competence refers to one's ability to function adequately in social settings, or in other words, how effectively one can handle social situations (Del Prette & Del Prette, 2021; Rose-Krasnor, 1997). Social competence is a multi-faceted construct and is a social judgment of one's performance (McFall, 1982, p.1; Topping et al., 2000). As such, in current literature, a uniform definition of social competence has not been agreed upon, given that the emphasis can be placed on different aspects of social functioning (Dodge et al., 1986; O'Malley, 1977). Social competence can be operationalized or distinguished based on varying factors, such as *social outcomes*, *cognitive skills*, or the *content of observable behaviour* that reflect competency (Dodge & Murphy, 1984; Cavell, 1990). *Social outcomes* refer to the products of social functioning, such as peer acceptance and level of social adjustment (Greenspan, 1981). This reflects a global appraisal or an evaluation of the adequacy of social functioning based on the consequences of social behaviours (Cavell, 1990). Regarding *cognitive skills*, social competence can be defined as the possession of social cognitive abilities and interpersonal cognitive problem-solving skills (Mott & Krane, 1994; Rubin & Rose-Krasnor, 1992). This encompasses social information processing abilities, such as encoding and interpretation of social cues, and enactment of behaviour based on cues (Webster-Stratton & Lindsay, 1999). As well, it could also involve more developmentally complex socio-cognitive abilities, such as the recognition of social dilemmas/problems, formulation of alternative solutions for problems, developing a step-by-step guide to achieve a desired social goal, identifying consequences of chosen behaviours, and being able to understand the motives of others (Shure, 2001). These

skills are viewed as requisite for achieving social competence, as they facilitate interpersonal effectiveness during social interactions. Finally, regarding the *content of behaviours*, social competence is assessed using skills that are seen as desirable, such as prosocial behaviours (e.g., cooperation; Dodge & Price, 1994; Perry & Perry, 1987). Increased display of these discrete social behaviours has been presumed to enable successful interactions with others (Junttilla et al., 2006).

In this study, children's social competence is defined as possessing behavioural skills to effectively interact with others (Greener, 2000; Lazarus, 1971). This conceptualization is based on the behavioual approach, which suggests that having the necessary skills to perform specific social behaviours will enable children to function adequately across social situations (Cavell, 1990; Warnes et al., 2005). Examples of these specific social behaviours include the demonstration of empathy, cooperation with others, and social initiation (Bellack, 1983; Foster & Ritchey, 1979; Merell, 2001). The operationalization of social competence, assessed via social skills, has been the predominant approach used in child development literature (Bellack, 1983; McConnell & Odom, 1999). Many widely used and reliable assessments and measures of social competence rely on the direct observations or use of ratings provided by informants (e.g., self, peers, parents) on prosocial behaviours (Gresham, 1983; Huber & Schmitz., 2019). Furthermore, interventions for improving children's social functioning are also based on the principle that remediation of social skills deficits is fundamental to social competence (Asher, 1985; Gates et al., 2017). For instance, an evidence-based support intervention known as social skills training is based on the learning principle that bolstering prosocial behaviours will promote positive social interactions and allow for the accomplishment of social tasks (Gresham, 1998).

Children's Social Competence and Social Skills

The building of children's social competence begins during infancy and further develops throughout childhood and adolescence (Chandler et al., 1992; Merell, 2001). Beginning in infancy, infants begin to develop socio-cognitive capacities, through acquiring social skills such as joint attention (e.g., the ability to direct attention to multiple individuals during social encounters; Sheinkopf et al., 2004) and facial mimicry (e.g., mirroring other people's facial emotions; Isomura & Nakano et al., 2016). This suggests that infants begin developing perceptual systems to extract relevant social information and recognize emotional expressions, which are precursors and predictors of later social competence (Grossmann, 2010; Pons et al., 2019). Furthermore, in their first year of life, infants have also been found to demonstrate empathetic concern, showing concern for others who are distressed (Davidov et al., 2021). In a study conducted by Paz and colleagues (2022), empathetic concern was observed among infants (3 to 18 months) and empathetic concern was measured by the level of concern in affect displays made by the infant (e.g., facial expressions, gestures) when presented with a distress stimulation. Higher levels of empathetic concern observed in early infancy were associated with higher levels of social competence in early childhood (Paz et al., 2022).

However, as children continue throughout their developmental trajectory, new components of social competence (e.g., performing and engaging in prosocial behaviours) may begin to become relevant for their adequate functioning in their social environments. For instance, during preschool years, children begin to engage in behaviours such as cooperation to formulate meaningful peer relationships (Perren & Alsaker, 2006). As such, the definition of children's social competence must also be reflective of age-appropriate and expected developmental milestones (Gouley et al., 2008; Mendez et al., 2002). Developmental progress in other domains such as emotion, cognition, and language during preschool years is also essential

to facilitate social development (Hartas, 2011). For example, the demonstration of prosocial

behaviour (e.g., empathy) during interactions may also require children to make use of more

complex socio-cognitive skills, such as the theory of mind, or being able to understand the mental

states of other people (Bakopoulou & Dockrell, 2016). Moreover, in assessing children's social

competence across development, it becomes essential to identify issues that are central to the

development period (Waters & Sroufe, 1983). For instance, for preschool children, having the

ability to engage in prosocial behaviours (e.g., cooperation) with peers is viewed as the

attainment of social competence (Lindsey, 2002).

An examination of children's social skills should also be considered when discussing

children's social competence. Social skills can be defined as a set of complex skills and socially

acceptable learned behaviours that enable individuals to have appropriate or positive interactions

with others (Chandler et al., 1992; Maleki et al., 2019). As children progress through

development, their social circle and experiences of social encounters begin to expand (e.g.,

transitioning from home to school). As a result, these changes require children to acquire new

and refine current social skills that will allow them to meet the demands of the new social

environment (Berry & Connor, 2010; Chan et al., 2000). In other words, the attainment

(possessing these abilities), and even performance (ability to make use) of social skills is highly

tied to the children's social competency (Waters & Sroufe, 1983). As an example, in comparison

to preschool years, children in their grade school years are required to have a wider array and

more complex social skills to formulate meaningful peer relationships (Bierman &

Montminy,1993; Jones et al., 2017). For preschool children, possessing social skills such as

displaying positive affect (e.g., smiling) and displaying low levels of aggressive behaviour (e.g.,

rough play) are deemed to be essential, whereas, for grade school children, those who

demonstrate cooperation and interpersonal support (e.g., thinking about others) are more well-liked by their peers (Bierman et al., 2009; Gulay, 2011). The assessment of social skills can also be used as an index of measuring social competence, given that these behaviours are likely to predict whether positive social outcomes are produced during social interactions and formulate a meaningful relationship with others (Burt et al., 2008; Hosokawa et al., 2017).

In current literature, researchers view children's positive social skills through two different facets, the presence of prosocial behaviour and the absence of anti-social behaviour. Prosocial behaviours are actions that are socially desirable, voluntarily done to benefit others and are highly encouraged in children (Junttila, 2006). Examples of these prosocial behaviours include actions such as cooperation, assertion, and self-control (Elliot & Busse, 1999; Gresham, 1981). For instance, cooperation involves helping others and working together to attain a specific goal (Elliott & Gresham, 1993). Assertion can be defined as the use of initiative to ask others for assistance or information. Self-control refers to one's ability to express emotions and behaviour that are socially appropriate across situations (Elliott & Gresham, 1993).

The second facet includes an absence of anti-social behaviour, which encompasses behaviour actions, whether intentional or unintentional, in being disruptive or harmful to others and oneself (Arnold et al., 2012). With regards to anti-social behaviours, this may include impulsivity (e.g., inability to inhibit dominant responses), aggression, hostility, and irritability (Sutton et al., 1999). Achievement of social competency in children has been theorized to include the display of high levels of prosocial behaviour and low levels of anti-social behaviour (Greenspan et al., 1992; Junttila et al., 2006). Previous research has supported this notion, as children who displayed increased levels of prosocial behaviours (e.g., cooperation), and low

levels of aggression have obtained more positive outcomes, including peer acceptance and

decreased peer victimization (Chavez et al., 2022; Wang et al., 2019). In a study conducted by

Wang and colleagues (2019), 537 children from the sixth to eight grade completed peer

nomination questionnaires to assess children's aggressive behaviour, their prosocial behaviour

and the degree of likeness by their peers. Results found that children who demonstrated

enhanced prosocial behaviours, displaying higher levels of empathy and lower levels of

aggression were associated with higher levels of peer acceptance.

Importance of Children's Social Competence and Social Skills

During the preschool years and into middle childhood, children's development across

domains including speech and language, social and emotional skills, and cognitive skills are

the most rampant and interconnected (Blair et al., 2010; Troller-Renfree et., 2022). Children

begin learning to function adaptively in social environments, communicate verbally, identify,

and label emotions, and even develop higher-order cognitive capacities (Monopoli &

Kingston, 2012). As such, children's abilities across these domains are said to have

bidirectional effects on one another, such that competency in one domain, can have

implications on the other, and vice versa. For instance, children who demonstrate difficulty

with modulating negative emotions may be more likely to display externalizing behaviours,

such as aggression (Metin Aslan et al., 2020). As a result, in considering children's social

competence and social skills, it becomes imperative to examine how deficits in these areas

impact children's development (McTaggart et al., 2020; Uslu, 2020).

This importance is further highlighted as social deficiencies identified in early childhood

have been found to be highly stable over the course of development, and rarely decline (Santos et

al., 2014). In a longitudinal study conducted by Coyne and Wright (2014), the developmental

trajectory of social skills, specifically self-control, was examined in a sample of 260 twins and 423 non-twins living in the United States. Self-control was assessed using the Social Skills Rating System (Gresham & Elliott, 1990) with ratings provided by parents and teachers that were collected starting from when the child entered kindergarten to when they were in grade 5. Results from this study found that in both twin and singleton samples, children who were low on self- control in kindergarten were also likely to score low on self-control in the fifth grade (Santos et al., 2014). Overall, this suggests that despite the rapid developmental period, self-control remains a relatively stable construct.

Deficiencies in children's social skills were found to significantly impact children's interpersonal functioning and social engagement (Hops, 1983). This can interfere with children's ability to establish and maintain relationships with others, which can lead to peer rejection and social isolation (Blandon et al., 2010; Choi & Kim, 2003). In turn, a lack of quality relationships with others, including peers, is linked to an array of negative consequences including low self-esteem, peer victimization, poor school adjustment, and academic difficulties (Malecki & Elliot, 2002; Perren & Alsaker, 2009; Strahan, 2003). Furthermore, concerns about social competence in children have also been associated with behavioural difficulties, including displays of aggressive behaviours and attention and concentration difficulties (Blumberg et al., 2018).

In addition, children's social skills deficits have also raised concerns about their impact on the mental and emotional well-being of children. In a systematic review conducted by Huber and colleagues (2019), the researchers reviewed 21 studies that examined the association between social competence and psychopathology across preschool age children (3 to 6 years). Across studies, social competence was operationalized as either a global construct or one of two dimensions: prosocial behaviour, and social initiative. In summary, results

indicated a negative association between prosocial behaviours (e.g., meeting the needs of others) and externalizing symptoms (e.g., attention difficulties) for both community and clinical samples of preschool age children (Huber et al., 2019). Regarding internalizing symptoms, while there were some mixed findings, most studies found a negative association between social behaviours, such as social initiative and internalizing symptoms (e.g., withdrawal and low moods; Huber et al., 2019). Overall, these findings suggest that social skills deficits may place children at a higher risk of developing both externalizing and internalizing problems (e.g., depression, anxiety, and conduct disorder; Masten et al., 2005).

These effects also appear to be long-term, as children's social skills deficits have been found to be associated with mental health difficulties in adulthood (Perren & Alsaker, 2009). Burt and colleagues (2008) conducted a longitudinal study examining the association between children's social competence and the emergence of psychopathology in children between the ages of 8 to 12 years old. Children's social competence, internalizing, and externalizing symptomology were assessed using self-report and parent-report measures and re-assessment took place after 7, 10, and 12 years (Burt et al., 2008). Findings from this study supported a negative longitudinal association between social competence in early childhood and the development and maintenance of internalizing symptoms, even into emerging adulthood (10 years later; Burt et al., 2008). Given the implications of children's social skills deficits and pervasive link to the emergence of psychopathology, this emphasizes the importance of examining factors that contribute to the acquisition of social skills, and achievement of social competency.

Role of Parent- Child Interaction on Children's Social Skills

According to Bronfenbrenner's Ecological System Theory, children's development is most influenced by the people who have direct contact with the child and are in their immediate environment (Bronfenbrenner, 1979; Stacks, 2005). As a result, parents play a fundamental role in the development of children's social skills, given that children's earliest social interactions occur within the immediate family. Children learn to acquire and perform social skills through a process known as socialization (Cheah & Rubin, 2003). During the process of socialization, parents can model, teach, and encourage children regarding actions and behaviours that are viewed to be socially acceptable (Maccoby, 1994; Martine-Escudero et al., 2020).

The notion that the quality of parent-child interactions may be integral to the development of children's social skills has been well-supported in current literature (e.g., Harrist & Waugh, 2002; Haven et al., 2014). For instance, longitudinal studies on parent-child interactions have shown that parenting behaviours that exhibit increased levels of warmth and sensitivity have been linked to increased use of prosocial behaviours and demonstrations of empathy amongst grade school children (Chen et al., 2002; Huang et al., 2022; Zhou et al., 2002). In contrast, parent behaviours that were characterized by high levels of stress were associated with higher levels of aggressive behaviour and fewer acts of cooperation (Anthony et al., 2005; Qian et al., 2022).

Several rationales have been provided to justify why quality parent-child interactions may predict a greater likelihood of prosocial behaviour in children. First, parents who are responsive to their child's needs may promote secure attachment styles, which, in turn, facilitates a greater sense of concern for others (Gross et al., 2017; Zhou et al., 2002). According to

Bowlby (1969) and Ainsworth's (1989) contributions to attachment theory, individuals with secure attachment styles are likely to develop internal working models that include more positive expectations of others, thus providing a road map for facilitating more prosocial behaviours. Furthermore, in accordance with social learning theory, parents who model more prosocial behaviour will elicit higher levels of these behaviours in their children (Bandura & Walters, 1977; Markiewicz et al., 2001; Neitola, 2018).

Parent-child Interactions, Children's Self-Regulation and Social Skills

The quality of parent-child interactions may also promote children's acquisition of social skills and social competence by fostering children's self-regulation skills (Yavuz et al., 2022). Self-regulation skills can be defined as an individual's ability to control and manage emotional, cognitive, and motivational responses to meet the demands of their environment (Fuhs et al., 2013). During parent-child interactions, the exchanges made between the two active participants may facilitate children's understanding of emotions, recognition of causal relationships, and development of problem-solving abilities (Clark et al., 2013; Mirabile et al., 2018). Emotional, cognitive, and autonomy supports exhibited by parents can be internalized by the child (Haven et al, 2014). These learned skills can then be used later to foster their own self-regulatory skills, and ultimately adaptive social skills (Clark et al., 2013; Haven et al., 2014). '

The role of parent-child interactions on children's self-regulation skills has been well-supported in child development research (Karreman et al., 2006; Sun & Tang, 2017). For instance, in a study conducted by Pasiak and Menna (2015), parent-child interactional synchrony (an index for quality of parent-child interactions) and its relation to young children's social skills and aggressive behaviour was assessed among a sample of 59 (29 aggressive and 30 non-aggressive) preschool-age children (3 to 6 years old). Children were classified as aggressive if

they scored above the 95th percentile in the Child Behaviour Check List (Achenbach, 1991;

Pasiak & Menna, 2015). Consistent with the current literature, the researchers theorized that

high-quality parent-child interactions would create an optimal environment for children to

engender adaptive self-regulatory skills (Pasiak & Menna, 2015).Results of this study found that

higher levels of interactional synchrony (i.e., characterized by increased responsivity and shared

positive affect) were associated with higher levels of social skills, as reported by the mother

(Pasiak & Menna, 2015). However, children's aggression also appeared to account for a

significant amount of this relation, as children who were characterized as aggressive, were likely

to possess decreased levels of social skills (Pasiak & Menna, 2015). Overall, these findings lend

support that the quality of parent-child interaction may be an important proponent for children to

acquire adaptive social skills, which may be mediated through promoting children's self-

regulation skills (Pasiak & Menna, 2015).

Furthermore, children's own self-regulatory skills have also been found to be associated

with children's later social functioning (Hamaidi et al., 2021; Montroy et al., 2014). Specifically,

greater difficulty with children's ability to regulate emotions and behaviour has been linked to

increased conflicts in relationships, a decrease in the display of prosocial behaviours, and lower

levels of socials skills rated by parents and teachers (McDowell et al., 2002; Pelco & Victor,

2007). For instance, in a longitudinal study conducted by Spinrad and colleagues (2006), the

relation between children's ability to regulate emotions (e.g., effortful control and impulsivity)

and their level of social competence was assessed in a sample of 204 children aged 4.5 to 7 years

and re-assessed two years later. Social competence was defined as the demonstration of socially

appropriate behaviour and popularity ratings provided by teachers and parents. The researcher

found that a child's increased level of impulsivity (e.g., ability to inhibit a dominant response)

was associated with decreased levels of popularity (Spinrad et al, 2006). This suggests that children who displayed more controlled and appropriate behaviours in social settings were more liked by others (Spinrad et al, 2006). The importance of developing adaptive self-regulatory skills during early childhood may be of particular importance as the child makes a transition from home to daycare and school. The expansion of children's social circle as they grow older may place increasing demands on their self-regulatory skills, as children must build upon current social skills to interact with others aside from their families, such as peers and teachers (Arslan et al., 2011; McClelland & Morrison, 2003).

Parent Scaffolding

In current child developmental research, one construct that has been used as an index for the quality of parent-child interactions and conceptualized as a strategy used to promote children's self-regulation skills is parent scaffolding (Mermelshtine, 2017; Salonen et al., 2007; Vygotsky, 1962, 1978). Generally, scaffolding reflects a process by which adult experts guide a child's skills acquisition by identifying components of a difficult task that the child understands, but also what is beyond the child's capability (Vygotsky, 1962, 1978). In other words, it can be seen as a way that higher-skilled individuals, such as parents promote their children's self-regulatory development by scaffolding their early problem-solving efforts (Mermelshtine, 2017; Vygotsky, 1978).

Initially popularized in the teaching and education psychology literature, scaffolding was eventually refined and adapted to examine interactions between parent-child dyads (Mattanah, 2005; Van de pol et al., 2010). Parent scaffolding refers to a transactional interaction during which a parent employs support at different levels to meet the needs of the child, while simultaneously demonstrating awareness of the child's potential abilities and nurturing their

autonomy during difficult tasks (Bibok, et al., 2009; Salonen et al., 2007; Vygotsky, 1962, 1978). This was due to the contributions of Vygotsky's (1978) notion of the Zone of Proximal Development, whereby Vygotsky posits that children learn new skills (such as social skills) and experiences to direct their own behaviour, through social interactions and guidance of those who are more skilled. As a result, given that parents are the child's most proximal system, in considering children's normative development, it becomes essential to understand how children's social development may be supported by parenting practices such as scaffolding (Fay-Stammbach et al., 2014; Sun & Tang, 2019).

While approaches to assessing for scaffolding in parent-child dyads have varied, the most notable conceptualization for how the quality of scaffolding can affect children's development was developed by Neitzel and Stright (2003) and has been used in research (Carr & Pike, 2012; Sun & Tang, 2019). Neitzel and Stright (2003) postulate that parent scaffolding can be observed through three supportive behaviours that can be observed during parent-child interaction tasks: (1) *Cognitive support*, (2) *Emotional support*, and (3) *Autonomy support*. These supportive behaviours foster children's development of self-regulation. Each support has been said to present its own unique contributions to the experience of scaffolding (Stright et al., 2009; Mermelshtine, 2017). *Cognitive support* encompasses providing instructions, solutions, and feedback that meet the cognitive needs of the child, but also ensuring task difficulty is regulated and the underlying steps to solve the problems are communicated. *Emotional support* refers to the display of positive emotions verbally or non-verbally during interactions and conveying investment and cares for the child's success (Huang et al. 2021; Neitzel & Stright, 2003). *Autonomy support* involves providing direct assistance (i.e., solutions), but also fostering the child's own active involvement in problem-solving or decision-making processes.

These supportive behaviours are thought to contribute to children's self-regulation development by promoting a child's self-mastery of skills, their ability to manage frustration during a problem and to inhibit distractions, and a shifting of responsibility from the parent to child (Mazursky-Horowitz et al., 2017; Wood et al., 1976). In a study conducted by Sun and Tang (2019), the relation between maternal scaffolding and self-regulation of Chinese preschool children was examined. Thirty-three mother-child dyads, with children ranging from 3 to 5 years old completed several problem-solving tasks. Maternal scaffolding was conceptualized by Neitzel and Stright (2003)'s model, such that scaffolding was coded for cognitive assistance (i.e., being directive, providing suggestions and explanations that facilitate a child's own metacognitive thinking), emotional support (i.e., providing encouragement and praise), and transfer of responsibility (i.e., balancing between mother responsibility and the child's). Results found that maternal scaffolding strategies that were high on cognitive assistance (e.g., providing effective strategies in assisting children to problem solve and resisting temptations of distractors), and high on positive emotional feedback predicted children's self-regulation skills (Sun & Tang, 2019). Self-regulation skills in this study were measured using a chopstick tapping task, where the child was requested to tap after the assessor tapped their chopstick (Sun & Tang, 2019). As such, these processes learned are said to parallel those skills required for emotional and behavioural regulation (Hammond et al., 2012).

Several studies have also found support for the role of parenting scaffolding and the development of children's self-regulation skills (e.g., Fay-Stammbach et al., 2014; Mermelshtine, 2017). For instance, in a study conducted by Neale and Whitebread (2019), the association between maternal scaffolding behaviour and children's effortful control (e.g., ability to self-regulate) was examined across 36 mother-child dyads at 12 months, 18 months, and 24

months. The researcher's objectives were to elucidate specific scaffolding behaviours, including

maternal contingency (i.e., adjusting to meet the needs of the child) and maternal propensity (i.e.,

sensitivity and willingness to engage in scaffolding), and how they relate to children's effortful

control across several joint play tasks. Results found that mother's scaffolding behaviours

characterized by high contingency and propensity were associated with higher later effortful

control in children (Neale & Whitebread, 2019). Overall, the findings implicates that effective

scaffolding strategies can provide an appropriate context for the adaptive development of

effortful control in children.

Parenting Scaffolding and Children's Social Skills

Prior research has shown that parental scaffolding seen during parent-child interaction tasks

is associated with a range of child outcomes, including children's language acquisition, and

academic success (Bibok et al., 2009; Mattanah et al., 2005). For instance, in a study conducted

by Huang and colleagues (2022), parent scaffolding behaviours of both the mother and father

were examined in relation to children's mathematics performance of 103 preschoolers from ages

5 to 6 years old. The researchers found a significant positive association between parent

scaffolding and children's mathematics performance, such that high levels of cognitive,

emotional, and autonomy support scaffolding behaviours were associated with the children's

increased mastery of mathematics learning (Huang et al., 2022). Furthermore, parent scaffolding

behaviours have also been found to contribute to children's development of executive

functioning, as it facilitates the development of higher-order cognitive skills such as task

switching (Hammond et al., 2012).

In current work, the effects of parent scaffolding on children's social functioning and

socio-emotional competency have not been as widely studied. Although, most studies have found

support for the association between parental scaffolding behaviours during problem-solving tasks and children's social skills (Baker et al., 2007; Lengua et al.,2007). For instance, in a study conducted by Pettygrove and colleagues (2013), the use of children's early prosocial behaviour was examined in relation to maternal scaffolding and socialization behaviours in 60 children between 18 and 30 months old during clean-up tasks. Parent scaffolding behaviours were rated on how consistently child-centered and age-appropriate support (e.g., regulating autonomy) was provided (Hammond et al., 2012; Pettygrove et al., 2013). Results found that maternal scaffolding supportive behaviours were associated with an increase in prosocial behaviours seen in toddlers, including an increase in helping and sharing behaviours.

Furthermore, the role of parental scaffolding on social skills has also been examined amongst young children with differing developmental trajectories. In a longitudinal study conducted by Baker and colleagues (2007), a sample of 207 parent-child dyads (children were 3 years old at the start and were followed for 6 years) was used to examine the association between parental scaffolding and children's social skills. Based on a cognitive assessment at age 3, children were classified as typically developing or experiencing developmental delays. Three parenting scaffolding supports were assessed in the study including motivational supports (e.g., engaging the child and inhibiting distractions), emotional supports (e.g., praising the child), and technical supports (e.g., structuring tasks for the child to succeed). Social skills were assessed using the Social Skills Rating System developed by Gresham and Elliott (1990). Results from the study found that parental scaffolding received when children were 3 years old was predictive of later children's social skills for both typically developing children and children with delays (Baker et al., 2007). These findings were still supported even when controlling the effects of children's dysregulation (i.e., difficulty managing emotion and behavioural responses), and

problem behaviours (e.g., aggression) suggesting that scaffolding uniquely contributes to children's later social functioning (Baker et al., 2007).

In addition, the role of maternal scaffolding behaviours on children's social skills were also examined among 60 preschool children between 3 to 6 years of age, with 30 classified as aggressive and 30 as non-aggressive children (Clark et al., 2013). Findings from this study revealed a significant association between the use of maternal supportive behaviours and preschool children's social skills, including high levels of cooperation and self-control (Clark et al., 2013). In comparison to non-aggressive preschoolers, parents of aggressive children displayed lower levels of cognitive, emotional, and autonomy support. In turn, the aggressive preschoolers displayed lower levels of social skills, as reported by the mother. Overall, these findings suggest that scaffolding supports employed by parents are crucial for children's social skills development, especially during a critical period of development, such as the preschool years.

Despite the body of literature that supports the association between parent scaffolding and children's social skills, most studies have not examined its relation to specific social skills, such as self-control, cooperation, assertion, and responsibility, except for Clark and colleagues (2013). Clark and colleagues (2013) found that among aggressive preschool children, only the association between maternal scaffolding and preschool children's level of responsibility was significant. However, these associations have yet to be examined in a community sample. As highlighted by this studies' findings, there is a need to conduct further research to elucidate the underlying mechanisms of scaffolding on children's social skills and to replicate current findings in this field of work. As well, in examining specific children's social skills, this information can also be used to inform intervention initiatives to build children's social competence.

Characteristics that Impact Parent Scaffolding and Children's Social Competence

While parent scaffolding predominantly focuses on support behaviours exhibited by the parent, it should be noted that both the parent and child are both active participants in the interactions (Conner & Cross, 2003; Harach & Kuczynski, 2005). Parent-child interactions are transactional, such that there are bidirectional and interactive effects that can occur between parent and child characteristics (e.g., child's gender or parent's personality), which can impact the specific behaviours or responses provided by each participant during the interaction (Pettit & Arsiwalla, 2008). As such, when examining parent scaffolding behaviours from an increasingly holistic perspective, it also becomes essential to consider the effects of parent and child characteristics on these behaviours, and their subsequent influence on child outcomes, such as children's social skills.

Child Temperament

Across parenting research, child characteristics such as child temperament have been shown to moderate the associations between negative parenting (e.g., harshness, lack of warmth) on child outcomes, such as social, behavioural, and emotional adjustment problems (Lengua & Kovacs, 2006; Lee et al., 2013). Child temperament can be defined as behavioural styles for how children react or self-regulate across situations; these behavioural styles are thought to be characteristics that are innate and stable across development (Rothbart et al., 2001; Martin et al., 2020). More specifically, children's negative temperament (e.g., high levels of irritability, anger proneness, and frustration), and lower levels of effortful control (e.g., low compliance and high impulsivity) are likely to elicit more negative interactions between parent and child (Gölcük & Berument, 2021; Morris et al., 2002). This includes increased parental assertion and decreased shared positive affect between the dyads (Hosokawa et al., 2017) which, in turn, can have a

negative impact on children's social skills. In a study conducted by Rispoli and colleagues (2013), the researchers examined the association between parent behaviours, children's temperament, and later social competence upon entry into school among a nationwide sample of 6850 parent-child dyads (children were 9 months). Parenting aspects, such as their level of responsivity, negativity (e.g., criticism), and emotional support, as well as the child's negative emotionality (e.g., display of anger in reaction to frustrating tasks), were assessed. Results from this study found a significant association between lower levels of child negative emotionality and parenting that was characterized by high levels of responsivity and emotional support and low levels of negativity (Rispoli et al., 2013). As well, lower levels of child negative emotionality and high parenting responsivity and emotional support predicted children's positive social competence (at the age of 2; Rispoli et al., 2013).

Furthermore, research has demonstrated links between children's temperament and lower levels of children's social skills (Séguin, & MacDonald, 2018). For instance, children who were more reactive (e.g., prone to negative affect) and/or had lower levels of self-regulation have been found to display higher levels of externalizing behaviours (e.g., aggression) and lower levels of prosocial behaviours (Eisenberg et al., 1993; Sanson et al., 2004). Overall, this suggests that in considering child outcomes (i.e., children's social functioning), child characteristics such as child temperament, specifically, negative affect and effortful control may be of relevance.

Regarding parent scaffolding, research conducted examining the role of child characteristics on children's social skills has been limited. Factors such as the age and gender of the child and their impact on parent scaffolding behaviours to the author's knowledge are the only characteristics which have been studied in past literature (Huang et al., 2022; Mermelshtine, 2017). In addition, research has focused more extensively on the bidirectional effects of parental

scaffolding and aspects of child temperament (Suor et al., 2019). For instance, in a study

conducted by Klein and colleagues (2018), researchers examined the bidirectional relationships

between parenting behaviours (including scaffolding), preschool-age children's temperament,

and social competency among a community sample. Laboratory observations of the child's

temperament and parent behaviour, including scaffolding (i.e., assessing for negative control,

autonomy, and guidance) were examined across three waves of data collection (child at age 36

months, 54 months, and 63 months). Social competence of preschool children was assessed using

a teacher rating of the Social Skills Rating System (Gresham & Elliott, 1990; Klein et al., 2018).

Results found that higher levels of maternal scaffolding were associated with increased level of

executive control in preschool children. Specifically, providing child autonomy and guidance

was associated with higher levels of effortful control. The authors did not find support for an

association between parent scaffolding behaviours and children's negative affect. Nor did they

find support for the association between maternal scaffolding and preschooler's social

competence (Klein et al., 2018).

However, in a study conducted by Seo and Lee (2019), the role of maternal scaffolding

on toddler's social skills, specifically joint-attention engagement and physical activity level was

examined among a sample of Korean parent-toddler dyads. The researchers also hypothesized

that toddler's temperament, specifically temperamental activity (i.e., high level of expressive

energy) would moderate this association. Maternal scaffolding in this study was assessed using a

Three Box Task, which combined the measurement of two facets (cognitive stimulation and

sensitivity) and the toddler's temperament was assessed by maternal rating of temperamental

activity (Seo & Lee, 2019). The study supported a relationship with maternal scaffolding and

toddler's joint engagement, but not physical activity. Furthermore, temperamental activity did

moderate the association between maternal scaffolding and toddler's engagement, such that lower temperamental activity was likely to benefit more from maternal scaffolding (Seo & Lee, 2019).

As such, with the author's knowledge, more studies are needed to examine the impact of child temperament, specifically effortful control, and negative affect on children's social skills given the mixed findings seen in current literature. As seen in previous work (i.e., Klein et al., 2018), the associations between maternal scaffolding behaviours, children's temperament, and children's social skills remain unclear. In addition, due to different methods for assessing parent scaffolding, the use of the Neitzel and Stright (2003)'s framework of maternal scaffolding may lend itself to different relationships with children's temperament and children's social skills if it were utilized.

Parental Emotion Socialization Practices

The Emotion Socialization theory postulates that parents' own emotion regulation is associated with children's development of emotion regulation skills (Hajal & Paley, 2020; Havighurst & Kehoe, 2017). This is thought to be accomplished through several avenues including: (1) parents modelling appropriate expression of emotions, (2) parents validating and discussing the meaning of emotions with children, and (3) parents teaching children how to regulate and express their emotions (Eisenberg et al., 1998; Denham et al., 2015). Research has shown that adaptive emotion socialization processes, such as validation and being supportive of children's emotional experience may promote the development of adaptive children's self-regulation skills, which, in turn, is associated with higher levels of social functioning in children (Baker et al., 2011; Secer et al., 2016). For instance, Mirabile and colleagues (2018) found that parents of preschool-age children who responded to children's negative emotions (e.g., sadness,

anger) with supportiveness (e.g., redirecting their distress or trying to solve the cause of

emotions) reported higher levels of social competence. Furthermore, Khabir and colleagues

(2015) also examined the association between maternal emotion socialization practices measured

using the Coping with Children's Negative Emotional Scale (CCNES; Fabes et al., 1990) and

children's social skills assessed using the Social Skills Rating Scale (SSRS; Gresham & Elliott,

1990) among 60 preschool age children. Specifically, maternal distress reactions (i.e., having

more personal distress in relation to negative affect displayed by the child) was found to be

associated children's social skills, such that higher levels of maternal distress reactions were

related to lower levels of cooperation, empathy, assertion, self, and responsibility in preschool

children. As well, higher levels of maternal distress reactions were also associated with higher

levels of difficulty with preschool children's emotion regulation skills (Khabir et al., 2015).

In addition, the role of parents' emotion socialization practices and their effects on

children's development are thought to be particularly salient in the presence of children's

negative emotions (Meyer et al., 2014; Sanders et al., 2015). Research has shown that parents

who react negatively to children's negative emotions report higher levels of dissatisfaction with

their child's behaviour and their parent-child relationship (Root & Ramussen, 2017). This

suggests that the quality of parent-child interactions can be impacted by parents' ability to

respond and modulate children's negative emotions.

In relation to parental scaffolding behaviours, there is limited research that has examined

the role that parent emotion socialization practices can have on the children's development of

social skills (Havighurst & Kehoe, 2017; Mermelshtine, 2017). However, Lincoln and colleagues

(2017) examined 30 mother-child dyads (children aged 2 to 4 years) to investigate how mothers'

scaffolding strategies and perception of a child's self-regulation relate to the child's actual

observed self-regulation. Scaffolding was assessed using a parent interview which consisted of asking open-ended questions about how they support their children's self-regulation (e.g., "do you teach specific strategies to your child about being patient?"). Narrative responses were coded based on coherence, or the degree to which a parent understands their child's own ability to foster their child's own autonomy and has clear guidelines and strategies to assist their child in developing self-control. The researchers found that mothers of preschool children who had negative perceptions of their child's ability to regulate emotions observed an increase in disruptive behaviours displayed by their child during parent-child tasks. As well, lower levels of engagement in maternal scaffolding (in the form of lower autonomy support) were associated with an increase in non-compliance and hostility used by children during social interactions (Lincoln et al., 2017). As such, while this provides some preliminary supporting evidence of this relationship, further research will need to be conducted to examine parents' emotion socialization practices, such as their reactions to children's negative emotions (i.e., parent distress reactions), and how this may influence the scaffolding strategies they employ, and subsequently, their children's social skills. Given that previous work had found an association with maternal distress reactions on children's social skills and emotional regulation, parental distress reactions may also influence parent scaffolding behaviours (Khabir et al., 2015),

The Present Study

While the role of parental scaffolding has been demonstrated to have positive effects on child development, research has predominantly focused on child outcomes, such as their cognitive abilities and academic achievement (Bibok et al., 2009; Huang et al., 2021). One area that has been largely overlooked in the field of parental scaffolding research is the construct's contributions to children's social skills (Mermelshtine, 2017). During the preschool years,

understanding how parents scaffold their children may provide insight into strategies and

supports that should be employed by the parent to foster adaptive social functioning in children.

This is of importance given that deficits in children's social skills have been linked to a range of

negative child outcomes, including peer rejection and later child psychopathology (Perren &

Alsaker, 2009; Strahan, 2003).

To further our current knowledge and understanding of parental scaffolding behaviours

and their role on children's social skills, the present study used an archival dataset of mothers

and their preschool children to examine links between maternal scaffolding behaviours and

children's social skills. Several research questions were addressed including: (1) How do

maternal scaffolding behaviours relate to preschool children's social skills?, (2) Does children's

temperament, specifically, negative affect and effortful control predict maternal scaffolding

behaviours and children's social skills ?, (3) Do mothers' emotion socialization practices,

specifically their distress reactions, predict maternal scaffolding behaviours and children's social

skills?

Based on a review of the preceding literature review on parent scaffolding behaviours and

children's social skills literature, it was predicted that:

I. Higher levels of maternal scaffolding behaviours (i.e., autonomy, emotion, and cognitive

    supports) will be associated with higher levels of social skills in children (Séguin &

    MacDonald, 2018; Sun & Tang, 2017).

II. Higher levels of maternal distress reactionswill be associated with lower levels of

    maternal scaffolding behaviours (Havighurst & Kehoe, 2017; Mermelshtine, 2017).

    Higher levels of children's negative affect will be associated with lower levels of

maternal scaffolding behaviour. Higher levels of children's effortful control will be associated with lower levels of maternal scaffolding behaviours (Mermelshtine, 2017).

III.   Higher levels of children's negative affect will be associated with lower levels of children's social skills. However, higher levels of children's effortful control will be associated with higher levels of children's social skills (Rispoli et al., 2013; Séguin, & MacDonald, 2018),

IV.   Higher levels of maternal distress reactions will be associated with lower levels of children's social skills (Baker et al., 2011; Secer et al., 2016).

Chapter III

Methodology

Participants

The following study used an archival dataset collected by Dr. Rosanne Menna (Primary Investigator; Grant #807374, University of Windsor Social Sciences and Humanities Research Grant) to examine the relationship between parenting practices, quality of the parent-child relationship, and young children's social behaviour and overall adjustment. This data has been previously used in research examining the role of parent-child interactional synchrony (Pasiak, 2017; Hanceroglu, 2021) on child socio-emotional outcomes.

Participants were mother-child dyads (children were age 3 to 6 years) from a mid-size city in Southwestern Ontario. They were recruited through advertisements posted across local community centers, libraries, daycare settings, parent resource centres, parenting magazines, parenting websites, children's community events, the participant pool at the University of Windsor, as well as by word of mouth. Prospective participants were contacted by phone or email. They were also provided with information about the study, including a brief description of study aims, the activities and time required to participate for both parent and child, as well as compensation for participation.

There were several exclusion criteria for children in the study. Children who did not speak English or had a prior diagnosis of a developmental delay or pervasive developmental disorder were not eligible to participate. As well, children who achieved a standardized score of 80 or below on both the Kaufmann Brief Intelligence Test Second Edition (KBIT-2; Kaufman & Kaufman, 2004) and the Wechsler Preschool and Primary Scale of Intelligence-Third Edition (WPPSI- III; Wechsler, 2002) were also excluded from the study.

Participants were 136 mother-child dyads. Two dyads were removed as a result of poor audio quality during the parent-child interaction task. Two additional dyads were removed as a different language was spoken through the video-recorded of the parent-child task. Due to missing data, twenty-seven dyads were also removed from the study analyses as they did not complete at least one of the measures used in the present study. As such, the final sample consisted of 105 mother-child dyads. An a priori power analysis using G Power 3.1 was conducted to determine the sample size that was required to detect a medium effect size (Cohens f^2= .15) for multiple regression with seven predictors at a significance level of .05 (Faul et al., 2009; Cohen, 2016). These seven predictors include the overall and subtypes of maternal scaffolding behaviours (cognitive, emotional, and autonomy support), maternal distress reactions, child negative affect and effortful control. To meet these requirements, an estimated total sample size of $n = 103$ participants was required.

The children's ages ranged from 3 to 6 years *(M = 57.97 months, SD = 10.84)*. There were 62 male and 43 female children. Mothers were between the ages of 24 to 52 years (*M* = 35.34, *SD* = 5.17), and the majority of them completed a post-secondary education. In terms of ethnicity, most mothers were of Caucasian decent (81.0.%), followed by other (4.8%), South Asian (3.8%), and Native Canadian (3.8%). Children were mainly from two-parent households, with one sibling, and most households had an income of $60,000 and above. Presented in Table 1 is the demographic information of the participants.

Table 1

Demographic Characteristics of the Sample (N = 105)

Characteristic	*n*	%
Child Gender		
Male	62	59.0%
Female	43	41.0%
Education		
Junior high	1	1.0%
Graduated High school	3	2.9%
Some college or university	13	12.4%
College or university	66	62.9%
Graduate or professional school	22	21.0%
Mother Ethnicity		
South Asian	4	3.8%
East Asian	3	2.9%
Caucasian	85	81.0%
African Canadian	1	1.0%
Hispanic	1	1.0%
Native	4	3.8%
Biracial	2	1.9%
Other	5	4.8%

Household Income

> $30, 000	10	9.5%
$30, 000 to 60, 000	22	21.0%
$61, 000 to $100, 000	31	29.5%
$101, 000 to $ 150, 000	27	25.7%
$151, 000 to $ 250, 000	11	10.5%
$ 250, 000 (and over)	1	1.0%
Missing	3	2.9%

Family Structure

Single parent	6	5.7%
Two parent	97	92.4%
Missing	2	1.9%

Number of Siblings

0	8	7.6%
1	66	62.9%
2	27	25.7%
3	3	2.9%
4	0	0%
5	1	1.0%

Procedure

Prior to data analysis, clearance was sought from the Research Ethics Board at the University of Windsor to use the de-identified archival dataset. The original study received clearance from the Research Ethics Board at the University of Windsor. In the procedures of the original study, mother-child dyads that met the inclusion criteria of the study were scheduled for two, one-and-a-half-hour to two-hour sessions. All sessions took place in a laboratory at the University of Windsor. At the beginning of the visit, parents were verbally provided with an overview of the study. Written consent was obtained from the parent, while verbal assent was also obtained from the child.

The laboratory visits consisted of two separate sessions. In the first session, mothers completed a questionnaire package that included measures of themselves and their child's socio-emotional and behavioural functioning. All measures in the battery were counterbalanced. Meanwhile, children worked with a trained research assistant to complete several cognitive assessment measures. In the second session, mother-child dyads completed a series of interaction tasks together. These interaction tasks were also administered in counterbalanced order across all dyads, except for the warm-up task which was always completed first. The four tasks included a warm-up task (5 minutes), a free-play task (10 minutes), a planning task (10 minutes), and a structured-teaching task (10 minutes). For this present study, only the planning task was coded to assess maternal scaffolding. The two separate sessions were also counterbalanced across all dyads. Research assistants provided the instructions for the tasks to the mothers and monitored the interactions through a one-way mirror in an observation room. A camera was also set up at the corner of the laboratory lab to record the parent-child interactions.

Mothers were compensated $10 to cover the costs of transportation and parking. As well, mothers were also given an additional $5 gift card to a local coffee shop. Mothers who were recruited from the participant pool at the University were awarded 3 bonus marks in their chosen

psychology course. Children were compensated with a small prize at the end of the visit (e.g., toy, colouring book, stickers).

A total of four research assistants were trained to conduct the procedures of the original study. These research assistants were one third-year undergraduate psychology student, as well as one MA and two Ph.D. level graduate students in a clinical psychology program. The graduate students received sufficient and adequate training as part of the research staff on the project to conduct cognitive assessments with the child. To reduce any potential for experimenter bias, all research assistants were told to rotate on the tasks they administered. The principal investigator (Dr. Rosanne Menna) oversaw the study but was not involved in the data collection. For the present study, two trained graduate researchers (including the researcher on this study) coded the video-taped mother-child dyad interaction task to assess maternal scaffolding behaviours.

Measures

The data used in the present study consists of videotaped mother-child interactions, a demographic measure, parent-report measures of children's social skills and temperament, and a parent self-report measure of emotion socialization practices.

Background Information. Mothers completed a questionnaire that included questions about their child's age, education, medical and psychological history, marital status, ethnicity, family structure, household income, and age and education level of both parents (see Appendix A).

Cognitive Ability. The Kaufman Brief Intelligence Test- Second Edition (KBIT-2; Kaufman & Kaufman, 2004) was used to assess children's cognitive ability for children over the age of 4 completed the KBIT-2 (Kaufman & Kaufman, 2004). The KBIT-2 is a standardized test

that is administered individually by a trained research assistant to individuals aged 4 to 90 years old. In children, it is often used as a screener for intellectual disabilities or to identify children at risk for academic problems (Bain et al., 2010). As a cognitive assessment, the KBIT-2 evaluates children's abilities across multiple domains including verbal and non-verbal reasoning. Nonverbal reasoning is a child's ability to analyze, make sense of information, and solve problems using visual reasoning. Verbal reasoning is a child's ability to understand and apply learned words. Children completed three subtests including Verbal Knowledge, Matrices, and Riddles. These three subtests yield a Nonverbal score and a Verbal score. These two scores combine to form a composite IQ score, a measure of intelligence. A standardized score of 80 and below indicates that the individual is performing below the average of what is expected for their age (Kaufman & Kaufman, 2004). The KBIT-2 has demonstrated good to excellent psychometric properties across Nonverbal, Verbal, and IQ composite scores (Bain et al., 2012). In terms of reliability, the internal consistency coefficient ranges from Cronbach's alpha = .80 to .95 (Kaufman & Kaufman, 2004). With regards to validity, the KBIT-2 has been found to be comparable to other cognitive tests, including the widely used Wechsler Preschool and Primary Scale of Intelligence (Canivez et al., 2005).

The Wechsler Preschool and Primary Scale of Intelligence- Third Edition (WPPSI-III; Wechsler, 2002) is a standardized test used to assess children's cognitive functioning, processing speed, and verbal performance for children between the ages of 2 years and 6 months to 7 years and 3 months. In this study, the WPSSI-III was individually administered to children below the age of 4 years to evaluate their cognitive abilities by trained graduate student research assistants. To obtain composite scores for domains such as Verbal Performance, and General Language composite, the number of subtests that are administered is dependent on age. However, for this

study, all children completed two subtests of the WPSSI-III, including Information and Object

Assembly to screen for cognitive impairments or developmental delays. These subtests were

used to assess the verbal and non-verbal abilities of the child. A standard score of below 80

suggests that an individual is performing below the average of what is expected for their age

(Wechsler, 2002). The WPSSI-III has demonstrated adequate to good psychometric properties

(Freeman, 2021). In terms of reliability, the internal consistency and test-retest reliability range

from Cronbach's alpha =.70 to .96, and r = .70 to .80 for subtests and composite scores (Gordon,

2004; Wechsler, 2002).

Children's Social Skills. The Social Skills Rating System (SSRS; Gresham & Elliott,

1990) parent form was completed by the mothers and was used to assess children's social skills.

The SSRS measures three areas including Social Skills, Problem Behaviours, and Academic

Competence. For the purposes of this study, only the Social Skills scale was used. The Social

Skills scale consists of 38 items that inquire about children's behaviour and the frequency of

these behaviours. These behaviours are rated on a 3-point Likert-type scale, 0 (*not at all*) to 2

(*often*). The overall rating of a child's social skills is comprised of scores from the four social

skills subscales: (1) Cooperation, (2) Self-control, (3) Assertion, and (4) Responsibility

(Gresham & Elliott, 1990). Cooperation refers to the use of behaviours that enable them to be

successful and perform well academically. Self-control refers to the inhibition of impulses or

negative behaviour (e.g., controlling temperament during conflict). Assertion refers to the

initiation of socially interacting with others or being expressive of their opinion. Responsibility

refers to following rules at home, at school, or in community settings. A higher overall total

score of the social skills subscale suggests that the child may have well-developed social skills

across multiple domains. The SSRS has demonstrated good to excellent psychometric properties

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for the Social Skills scale (Gresham & Elliott, 1990). In terms of reliability, internal consistency

and test-retest reliability range from Cronbach's alpha = .80 to .90, and *r* = .65 to .80. (Demaray

et al., 1995). Regarding construct validity, the SSRS was found to have an *r* = .75 correlation to

the Walker-McConnelll Scale of Social Competence and School Adjustment (Gresham & Elliott,

1990). For the present study, the following Cronbach alpha coefficients were acceptable ranging

from. 68 to .77 (for the subscales), and for the total score Cronbach alpha was .69.

 Maternal Emotion Socialization. The Coping with Children's Negative Emotion Scale

(CCNES; Fabes et al., 1990) was used to assess mothers' emotion socialization practices,

specifically how mothers respond to preschool or grade school children's negative emotions. In

this measure, parents are provided with 12 scenarios in which children may experience distress

or negative affect. Parents are asked how likely they would respond to these situations using one

of 6 possible coping strategies. Responses are rated on a 7-point Likert-type scale ranging from *1*

(very unlikely) to 7 (*very likely)*. The scores on the 12 vignettes are averaged to produce a score

for six subscales including Problem-Focused reactions, Emotion-Focused reactions, Expressive

Encouragement, Minimization Reactions, Punitive Reactions, and Distress Reactions. For this

study, only the Distress Reactions subscale was used, as it examines the degree to which a parent

would experience distress or become adversely reactive when their child expresses negative

affect (e.g., frustration). Higher scores on the Distress Reactions subscale indicate a greater

likelihood of parents experiencing distress in response to children's negative affect. The CCNES

has been found to demonstrate adequate psychometric properties (Fabes et al., 2002). In terms of

reliability, the internal reliability and test-retest reliability have been found to be acceptable in

samples of mothers and preschool children, ranging from Cronbach's alpha = .62 to .70, *r* = .57

to .83 (Eisenberg & Fabes, 1994; Fabes et al., 2002). Regarding construct validity, the CCNES

subscales have been found to be significantly associated with other parent-related indexes of

emotion socialization practices on the Parent Attitude Toward Children's Expressiveness

(PACES; Fabes et al., 2002). For this study, Cronbach's alpha was .79 for the CCNES measure

and Cronbach's alpha was .60 for the CCNES Distress Reactions scale.

Child Temperament. The Children's Behaviour Questionnaire (CBQ: Rothbart et al.,

2001) is a caregiver-reported measure used to assess children's temperament during early to

middle childhood. The scale is comprised of 195 items that ask about children's behaviours and

reactions across everyday situations. Each item is rated on a 7-point Likert-type scale ranging

from 1 *(extremely untrue)* to 7 (*extremely true*). A total of 16 dimensions of temperament are

typically assessed, including Activity Level, Anger/Frustration, Attentional Focusing,

Discomfort, Fear, High-Intensity Pleasure, Impulsivity, Inhibitory Control, Low-Intensity

Pleasure, Perceptual Sensitivity, Positive Anticipation, Sadness, Shyness, Smiling/Laughter, and

Suitability. Individual scale scores are then totaled to create three higher-order factor scores,

Surgency (Extraversion), Negative Affectivity and Effortful Control. For the purposes of this

study, only Negative Emotionality and Effortful Control factors were examined. Negative

Affectivity is comprised of Anger/Frustration, Discomfort, Fear, Sadness, and Soothability

(reverse scored). Negative Affectivity refers to children's tendency to experience negative affect

(i.e., frustration, irritability). The Effortful Control factor consisted of Attentional Focusing,

Inhibitory Control, Low-Intensity Pleasure, and Perceptual Sensitivity. Effortful control refers to

the child's ability to self-regulate and inhibit a dominant response. The CBQ is a widely used

measure and has demonstrated adequate to good psychometric properties (Sleddens et al., 2011;

Rothbart et al., 2001). In terms of reliability, internal consistency has been found to range from

acceptable to good, Cronbach's alpha =.64 to .92 (Rothbart et al., 2001). CBQ scales also

demonstrated good construct validity, with substantial conceptual similarities to the parent report

Childhood Temperament Questionnaire (Rothbart et al., 2001). For the present study, the

Cronbach's alpha was. .72 and .70 in Negative Affectivity and Effortful Control subscales

respectively.

Maternal Scaffolding. The mother and child completed a birthday planning task that was

taken from the study by Neitzel and Stright (2003) to assess parental scaffolding behaviours. The

task was chosen so mothers could demonstrate their use of cognitive and emotional support for

their children during tasks that could evoke potential frustration. For the task, the researcher

assistants informed mothers to assist the child in planning a birthday party for a stuffed bear by

providing any information they felt would help the child succeed. They were instructed to decide

on the following: friends the stuffed animal would like to invite, a game the stuffed animal might

like to play, a gift the stuffed animal would enjoy, and the kind of cake the stuffed animal would

like. A stuffed animal, blank paper, and crayons were provided. Mothers and children were

encouraged to scribe or draw their plans on the paper provided. The entirety of the task was

about 10 minutes in duration.

Maternal Scaffolding Coding. An observational coding system developed by Neitzel and

Stright (2003) and adapted by Clark et al, (2013) was used to code the planning task for maternal

scaffolding. Drawing on Vygotsky's (1962, 1978), Neitzel and Stright (2003) identified seven

factors that they considered to reflect the notion of scaffolding: metacognitive information,

regulation of task difficulty, review, emotional support, rejection, control, and encouragement of

the child's active involvement. Three of these variables are intended to measure cognitive

support (i.e., metacognitive information, regulation of task difficulty, review), two are

considered to assess emotional support (i.e., emotional support, rejection) and two are considered

to measure autonomy support (i.e., control and encouragement of the child's active

involvement).

     Cognitive support refers to the communication of strategies and providing problem-

solving steps while ensuring that the difficulty of the task is regulated. *Emotional support* refers

to the parent's ability to create a positive emotional environment for the child to self-regulate

while attending to the sensitivity and needs of the child. *Autonomy support* refers to the use of

strategies that promote a child's sense of agency (Neitzel & Stright, 2003). Using this coding

system, two raters scored the seven maternal scaffolding strategies on a 5-point scale from 1

(low) to 5 *(high)*. All composite scores for each dimension were calculated by adding together

the facet scores for each dimension of scaffolding.

     Composite scores for *cognitive support* were derived from the scores on two facets:

Metacognitive Information and Cognitive Support. The use of Metacognitive Information is

present if (a) the parent communicates any task management information or strategies, (b) the

information advances the knowledge the child has on the task, and (c) if they can provide

reasoning to the child as to why the strategy is employed. The rating of the second facet of

Cognitive Support examines whether the mother: (a) regulates the task (e.g., giving small steps of

instructions), (b) reviews the steps of tasks, and (c) communicates how it relates to overall

progress toward the goal. High scores on the cognitive support composite suggest that the parent

uses meaningful instructions to support the child and provides a review of these learned steps.

The *Emotional Support* composite score is derived from scores from two facets of emotional

support, (i.e., expression of positive emotions and warmth) and rejection (i.e., being critical or

dismissive). High scores on this composite suggest that the parent provides high levels of

positive emotional support for the child. The *Autonomy Support* composite score is derived from

scores on the facets of control and encouragement. The aspect of control refers to the amount of control exercised on the child by the parent that is beyond necessary to complete the task. The aspect of encouragement relates to how much transfer of responsibility the parent provides, such as using hints or questions to assist the child, rather than directing them to the right course of action or providing the correct response. A high composite score on autonomy support suggests that the parents appropriately balanced exercising control of the task and encouraging the child's autonomy (Neitzel & Stright, 2003; Clark et al., 2013). Two of the seven strategies, rejection, and controlling, were reverse scored.

All coding was conducted by two graduate graduate students in psychology. The coders were trained in the use of the adapted Parental Scaffolding Coding Manual by Neitzel and Stright (2003). Coders were blind to all information about the participants and were trained to code for dimensions of maternal scaffolding on the birthday party planning task. The researcher of the present study was one of the trained coders. The researcher first learned to code by thoroughly reading the manual and meeting with the supervisor to discuss the coding system. The first coder trained the second coder. Then, a subset of parent-child interactions was coded individually by each coder. After the coding was done, the coders met to discuss any discrepancies in their coding. The coders also meet with the supervisor to review codes. Detailed coding forms were used to assist with coding. The forms featured clear and concise definitions for the five coding alternatives per variable. The forms also contained a section for the coders to note particular aspects of the interactions that served as the basis for the rating.

The coders evaluated their inter-rater agreement and the reliability of their coding across a randomly selected subset of the parent-child interactions. Periodic reliability checks were also conducted to prevent coder drift. Inter-rater reliability was aimed to be above an Intraclass

Correlation Coefficient (ICC) of .80. Inter-rater agreement was also established between both coders prior to coding individually. Five randomly selected tapes were coded, meeting an inter-rater agreement of (31/35) 88% , and with 100% of the codes in agreement after discussion. The number of videos coded were then divided equally across the coders. Twenty percent of the parent-child dyads were coded for reliability (26 tapes). These 26 tapes had an inter-rater agreement of 91% (166/182 codes) and 100 % after the agreement. In terms of the inter-reliability, the Intraclass Correlational Coefficient, ICC was .97.

Chapter IV

Results

Analyses

IBM SPSS Statistics Version 28 was used to complete all the analyses. To test the

significance, all analyses were set at an Alpha level of .5, but the exact *p*-values are reported

for more accurate interpretation. Means, standard deviations and ranges were calculated for the

study variables. T-tests were performed to examine child gender differences. Bivariate

correlations were conducted to examine relations between demographics variable (i.e.,

household income, family structure, child gender, and parent's education) and the study

variables. To analyze the association between maternal scaffolding and the study variables

(i.e., children's social skills, maternal distress reactions, children's negative affect and

children's effortful control), bivariate correlations were conducted. Additional analyses,

specifically regression analyses, were conducted to examine significant bivariate correlations.

Data Preparation

Missing data. Prior to conducting any statistical analyses, data were screened for missing

data. The summary of missing values in sample indicated that 100% of the variables had some

missing data, and across all variables and participants, 0.05% of the total data was absent. From

each study variable, 5.9 % were missing data on the SSRS, 11.8 % of missing data on the

CCNES, 11.8% missing data on CBQ, and 5.1 % for maternal scaffolding behaviours. Majority

of missing data were a result of participants not completing the required measures or only

partially completing them.

To ensure that missing data was not systematic, a missing value analysis (MVA) using Little's Missing Completely Random (MCAR; Little, 1998) was conducted. Results indicated that MCAR test was not significant, χ^2 (167, N = 136) = 137.0, p = .39). This indicates that the mechanism of the missing data is unlikely to be related to the demographics or the response style. For cases that had less than 10% of missing data in a measure, Expectation Maximization method was used to impute values that were missing. EM was used as this iterative method is most appropriate for estimating covariances and variances that are the least biased when MCAR data is normative or slightly skewed (Graham et al., 1996). For cases with more than 10% of missing data on measure, the case was subsequently removed.

Outliers and Assumptions: First, the data set was examined to determine if it had a sufficient sample size. In order to detect a reasonable effect with sufficient power, each independent variable should have at least 15 observations observed in the data set (Cohen et al., 2003). The present study started with 136 participants and the final sample was 105 participants. This indicates an adequate sample size for the seven independent variables.

Outliers for the independent variables were identified using the calculated Mahalanobis Distance and Leverage values. To calculate the Leverage values, the formula of three times the value of (k+1)/n) recommended by Field (2009) was used. The cut- off value was 0.23 and one outlier was identified. In regards to Mahalanbois Distance, a critical cut-off value of 24.32 was used. This critical value was identified using a chi- square distribution of 7 degrees of freedom (df = # predictor variables) and p = 0.001. Again, one outlier was identified. Outliers for the dependent variables were identified by examining Standardized residuals. A cut-off value of

above |2.5| was used and two outliers were identified. Outliers were left in the dataset as they were found to have negligible influence on the overall analysis.

To test for the assumption of normality, this was assessed through a visual inspection of histograms of standardized residual and identifying the skewness and kurtosis of each variable to ensure that all variables fell within a normal curve (Osborne & Waters, 2002). In addition, the normality of the variables was also assessed using the Shapiro-Wilk Test. All variables fell within the range of ±2 for skewness and kurtosis fell within ±3. When examining histograms of the standardized residuals, most variables fell within a normative curve. However, two maternal scaffolding behaviours, including the emotional composite, and autonomy composite did not appear to fall within a normative distribution. The Shapiro-Wilk Test of two scaffolding behaviours (emotional and autonomy composites) yielded a significant result, $W = .82, p < .001,$ $W = .85, p < .001, W = .64, p < .001$ respectively. Therefore, this suggests that these two maternal scaffolding variables violated the assumption of normality. However, with respect to the research objectives, the non-normative distribution of maternal scaffolding behaviours may be indicative of differences in scaffolding behaviours across mothers in the samples that are informative. As such, no transformations were applied, and the non-transformed scores were used in subsequent analyses.

Influential observations were also examined for both independent and dependent variables using Cook's Distance, which should have a cut-off value of 1. This assumption was met as there were no influential variables that were observed. Violations of singularity and multicollinearity were also examined. In terms of singularity, when examining the correlation matrix, among the predictor variables, the highest correlation was $r = .49$ indicating that the correlation between variables is within an acceptable range. As well, in terms of

multicollinearity, Tolerance values had to be greater than .1 and VIF values computed must not exceed a value greater than 10 (Cohen et al., 2003). For both independent and dependent variables, Tolerance values were all greater than .1 and VIF values were all less than 10, with the largest VIF value being 1.10.

    Linearity was evaluated by visually inspecting a scatter plot graph depicting the standardized predicted value on the x-axis and the dependent variable on the y-axis. On the scatterplot plot, a linear regression was observed. To examine Homoscedasticity, a scatter plot graph with the standardized predicted value on the x-axis and the standardized residuals on the y- axis was visually examined. In evaluating the scatter plot, it seemed to show an equal distribution of data points above and below the regression line, and there was no presence of fanning or funnel shape in the distribution. As a result, both assumptions of linearity and homoscedasticity were met.

    To determine if the independence of errors is present, Durbin-Watson values were computed and had to follow within the range of 1.5 to 2.5. The assumption for independence of errors was met as the Durbin-Watson statistical value was 1.63.

    Finally, in regard to the assumptions of independence of observations, based on the methodology, it can be assumed that the data in the sample was independent of each dyad. Only one single parent-child dyad was at the lab during the time of testing. In addition, the order of activities completed by dyads in the laboratory, the order of the sessions, and the research assistants were randomized.

Preliminary Analyses

A summary of the descriptive statistics of the study variables, which includes the means, standard deviations and ranges can be seen in Table 2. Bivariate correlations between the demographic variables and the main variables of interest were also conducted. This is to ensure that any confounding variables are controlled for in subsequent analyses. The correlations are presented in Table 3.

Table 2

Mean, Standard Deviation and Ranges of Primary Study Variables (N= 105)

| Measure | *M* | *SD* | Range | |
			Minimum	Maximum
SSRS total	52.56	9.33	28.00	69.00
MSCognitive	8.72	2.35	3.00	15.00
MSEmotional	5.41	0.99	3.00	7.00
MSAutonomy	5.94	.66	4.00	9.00
MSOverall	20.10	2.17	14.00	27.00
CBQNEGAFF	4.13	0.83	2.00	6.08
CBQEFFCON	5.40	0.70	3.50	6.92
CCNES Distress	2.52	0.62	1.17	4.00

Note. SSRS total = Social Skills Rating Scale total scores, MSCognitive = Cognitive Maternal Scaffolding Behaviours, MSEmotional = Emotional Maternal Scaffolding Behaviours, MSAutonomy = Autonomy Maternal Scaffolding Behaviours, MSOverall= Total Maternal Scaffolding Behaviours, CBQNEGAFF = Children's Negative Affect, CBQEFFCON = Children's Effortful Control, CCNES Distress= Maternal Distress Reactions

Table 3

Correlations of Study Variables and Demographic Variables (N=105)

Measure	Child Age	Child Gender	Maternal Education	Household Income
SSRS total	0.02	0.12	*0.07*	0.09
MSCognitive	-0.21*	-0.04	-0.06	0.23**
MSEmotional	- 0.11	0.15	0.01	< .001
MSAutonomy	-0.06	0.16	-0.02	-0.08
MSOverall	-0.23*	0.06	-0.05	0.12
CBQNEGAFF	0.07	-0.10	- 0.07	- 0.08
CBQEFFCON	0.12	0.19	0.14	0.02
CCNESdistress	-0.09	0.02	-0.17	- 0.06

p * < .05, ** <. 01

Note. SSRS total = Social Skills Rating Scale Total, MSCognitive = Cognitive Maternal Scaffolding Behaviours, MSEmotional =

Emotional Maternal Scaffolding Behaviours, MSAutonomy = Autonomy Maternal Scaffolding behaviours, MSOverall= Total Maternal

Scaffolding Behaviours, CBQNEGAFF = Children's Negative Affect, CBQEFFCON = Children's Effortful Control, CCNES

Distress= Maternal Distress Reactions

Mother-child dyads from higher-income households employed higher levels of maternal scaffolding cognitive supports. For mothers of younger children, higher levels of overall maternal scaffolding cognitive supports were observed.

To examine if there were any gender differences across the study variables, t-tests were conducted. As seen in Table 4, no statistically significant gender differences were found across the primary study variables.

Table 4

Gender Differences Among Study Variables (N = 105)

Measure	Male (n = 62) M *(SD)*	Female (n = 43) M *(SD)*	t(df)
SSRS total	51.6 *(10.1)*	54.0 (8.0)	t(103) = -1.26
MSCognitive	8.8 *(2.4)*	8.6 *(2.4)*	t(103) = 0.43
MSEmotional	5.3 *(1.0)*	5.6 *(1.0)*	t(103) = -1.50
MSAutonomy	5.85 *(0.6)*	6.1 *(0.7)*	t(103) = 0.89
MSOverall	20.0 *(2.7)*	20.6 *(2.7)*	t(103) = -0.56
CBQNEGAFF	4.2 *(0.8)*	4.0 (0.9)	t(103)= 0.98
CBQEFFCON	5.3 *(0.7)*	5.6 (0.6)	t(103) = -1.96
CCNESdistress	2.5 *(0.6)*	2.5 (0.7)	t(103) = -0.15

Note. SSRS total = Social Skills Rating Scale Total, MSCognitive = Cognitive Maternal Scaffolding Behaviours, MSEmotional = Emotional Maternal Scaffolding Behaviours, MSAutonomy = Autonomy Maternal Scaffolding Behaviours, MSOverall= Total Maternal Scaffolding Behaviours, CBQNEGAFF = Children's Negative Affect, CBQEFFCON = Children's Effortful Control, CCNES Distress = Maternal Distress Reactions

Study Hypotheses

To test the hypotheses proposed in the study, bivariate correlations were conducted to explore the

association among the primary study variables (see Table 5).

Hypothesis I: Maternal scaffolding behaviours would be significantly positively associated with

children's social skills.

Results indicated that maternal scaffolding behaviours overall and children's social skills were

not significantly associated, $r(103) = -.15$, $p = .12$. In addition, cognitive maternal scaffolding

behaviours ($r(103) = -.12$, $p = .21$), emotional maternal scaffolding behaviours ($r(103) = -.03$, p

$= .78$), and autonomy maternal scaffolding behaviours $r(103) = -.15$, $p = .13$) were not significantly

associated with children's social skills. This suggests that hypothesis I was not supported. Given the

absence of a significant correlation between maternal scaffolding behaviours and children's social

skills, further regression analysis was deemed unwarranted in this context.

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Table 5

Correations Among Primary Study Variables (N = 105)

Measure	1	2	3	4	5	6	7	8
1. SSRStotal	--							
2. MSCognitive	-.123	--						
3. MSEmotional	-.027	.033	--					
4. MSAutonomy	-.150	.144	-.140	--				
5. MStotal	-.154	.914**	.358**	.318**	--			
6. CCNESdistressreacti ons	-.046	.046	.113	.003	.082	--		
7. CBQNEGAFF	-.223*	.152	-.020	.140	.158	.238*	--	
8. CBQEFFCON	.486**	-.138	.015	-.207*	-.165	.043	-.071	--

*p * < .05, ** < .01*

Note. SSRS total = Social Skills Rating Scale Total , MSCognitive = Cognitive Maternal Scaffolding Behaviours, MSEmotional = Emotional Maternal

Scaffolding Behaviours, MSAutonomy = Autonomy Maternal Scaffolding Behaviours, MSOverall= Total Maternal Scaffolding Behaviours, CBQNEGAFF

= Children's Negative Affect, CBQEFFCON = Children's Effortful Control, CCNES Distressreactions= Maternal Distress Reactions

Hypothesis II. Maternal distress reactions would be significantly positively associated with maternal scaffolding behaviours.

Results indicated no statistically significant association between maternal distress reactions and overall maternal scaffolding behaviours, $r(103) = .08$, $p = .41$. Also, cognitive maternal scaffolding behaviours ($r(103) = .05$, $p = .64$), emotional maternal scaffolding behaviours ($r(103) = .11$, $p = .25$) and autonomy maternal scaffolding behaviours ($r(103) = .003$ $p = .97$) were not statistically significantly associated with maternal distress reactions. As such, this indicates that Hypothesis II was not supported.

Hypothesis III. Children's negative affect and effortful control would be significantly associated with maternal scaffolding behaviours.

Results found that children's negative affect was not significantly associated with overall maternal scaffolding behaviours ($r(103) = .16$, $p = .11$), cognitive maternal scaffolding behaviour ($r(103) = .15$, $p = .12$), emotional maternal scaffolding behaviour ($r(103) = -.02$ $p = .84$), and autonomy maternal scaffolding behaviour ($r(103) = .14$, $p = .15$). There was no significant negative association between children's effortful control and overall maternal scaffolding behaviours ($r(103) = -. 22$, $p =.12$), cognitive maternal scaffolding behaviours ($r(103) = .14$ $p =. 16$) and emotional maternal scaffolding behaviours ($r(103) = -. 02$, $p =.88$). However, children's effortful control was negatively associated with autonomy maternal scaffolding behaviours, $r(103) = -.21$, $p = .034$. As such, this suggests that for children with lower levels of effortful control, higher levels of autonomy maternal scaffolding behaviours were observed. Hypothesis III was partially supported.

Hypothesis IV. Maternal distress reactions would be significantly negatively associated with children's social skills.

There was no significant association between maternal distress reactions and children's social skills, $r(103) = -.05$, $p = .64$. As such, hypothesis IV was not supported.

Hypothesis V. Children's negative affect would be significantly negatively associated with children's social skills and children's effortful control would be positively associated with children's social skills.

Results indicated a significant but negative association between children's negative affect and children's social skills, $r(103) = -.22$, $p = .022$. This suggests that children who display higher levels of negative affect were reported to possess lower levels of social skills. Furthermore, the correlational analysis revealed a significant positive association between children's effortful control and children's social skills $r(103) = .48$, $p < .001$. As such, this indicates that children who display higher levels of effortful control were reported to possess higher levels of social skills. Hypothesis V was supported.

Regression Analyses

Significant associations were identified between autonomy maternal scaffolding behaviours, children's social skills total, and maternal distress reactions on children's negative affect and effortful control. As such, additional analyses were conducted to further elucidate the nature of these relationships. As discussed in the literature review, children's temperament, specifically negative affect, and effortful control have been found to be associated with children's social skills, parents' emotion socialization practices and parenting behaviours, which extend to scaffolding practices. Emerging literature has also suggested the construct of children's temperament, specifically effortful control has substantial overlap with self-regulation skills among preschool children (Schmidt et al., 2022). For instance, using a factor analysis, Lin and colleagues (2019) found that the tasks that were assessing for children's effortful control and executive functioning loaded well onto a one-factor model for children's self regulation. Thus, there is increasing support in literature which suggests that children's temperament should be conceptualized as a measure for assessing children's self-regulation skills. Given that maternal scaffolding has been theorized to promote children's self-regulation skills, regression analyses were conducted to determine if maternal scaffolding supports did predict children's self-regulation skills. Furthermore, as highlighted by Bornstein and colleagues (2019), while child temperament has often been considered a stable and enduring construct across childhood, given the rapid development that occurs during preschool years, moderators of their stability can be found. As such, children's social skills were examined as a predictor of self-regulation skills due to the bidirectional nature of the relationship between children's temperament and children's social skills.

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Model I: Multiple Linear Regression for Children's Effortful Control

To further examine the relationship between autonomy maternal scaffolding behaviours (MSAutonomy) and children's social skills total scores (SSRS total) on children's effortful control, a multiple regression model was conducted. Results of the regression model indicated that MSAutonomy and SSRS total accounted for 25.5 % of the total variance of children's effortful control, ($R^2 = .26$, $F(2, 102) = 17.44$, $p < .001$). Of the two variables added, only SSRStotal was a significant predictor for children's effortful control, ($B = .035$, $t(102) = 5.40$, $p < .001$), refer to Table 6. The unstandardized regression coefficients indicate children who score high on SSRS total, see an average increase of .04 in maternal ratings of children's effortful control.

Table 6

Summary of Regression Coefficients for Children's Effortful Control

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	p
1	(Constant)	4.42	.68		6.47	<.001
	MSAutonomy	-.15	.09	-.14	-1.59	.115
	SSRStotal	.04	.01	.47	5.39	<.001

Note. MSAutonomy = Autonomy Maternal Scaffolding Behaviours, SSRS = Social Skills Total

Model II: Multiple Linear Regression for Children's Negative Affect

To further examine the relationship between maternal distress reactions and children's social skills on children's negative affect, a multiple regression model was conducted. As such, maternal distress reactions (CCNESdistressreactions) and children's social skills (SSRStotal) were entered into the model. Results of the regression model indicated that maternal distress reactions and children's social skills accounted for 10.2 % of the total variance of negative affect ($R^2 = .10$ $F(2,102) = 5.76$, $p < .001$). Maternal distress reactions and children's social skills were both significant predictors of negative affect, with reported p values of .02 and .03 respectively, see Table 7. The unstandardized regression coefficients suggest that for children who score high on social skills, an average decrease of .02 is seen in maternal ratings of negative affect (refer to Table 7). Furthermore, for mothers who experience high levels of distress reactions towards children's negative affect, on average, an increase of .31 is seen in maternal ratings of children's negative affect.

Table 7

Summary of Regression Coefficients for Children's Negative Affect

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval	
	B	Std. Error	Beta	t	p	Lower Bound	Upper Bound
(Constant)	4.35	.56		7.80	<.001	3.24	5.45
CCNESdistressreactions	.31	.13	.23	2.43	.017	.06	.56
SSRStotal	-.02	.01	-.21	-2.26	.026	-.04	-.002

Note. MSAutonomy = CCNESdistressreactions = Maternal Distress Reactions, SSRStotal = Children's Social Skills Total

Summary of Findings

Overall, the results did not lend support to the first hypothesis. A significant association between maternal scaffolding behaviours (i.e., total, autonomy, emotional, and cognitive) and children's social skills was not found. Also, the second and fourth hypotheses were not supported as maternal distress reactions was not significantly associated with maternal scaffolding behaviours or children's social skills. The third and fifth hypotheses of the study were partially supported. In relation to children's temperament, it was found that autonomy maternal scaffolding supports and children's social skills were positively associated with children's effortful control. As well, there was a significant negative association between children's social skills and children's negative affect. Further regression analyses revealed that children's social skills emerged as the only significant predictor of children's self-regulation, as indexed by children's temperament (i.e., effortful control and negative affect).

Chapter V

Discussion

The purpose of this present study was to extend current research examining the relationship between parental scaffolding behaviours and children's social skills. In particular, the study utilized a community sample of mothers and their preschool children to explore the role of parental scaffolding on children's social skills. In addition, to add to the literature on parent scaffolding behaviours and children's social competency, the influence of parent characteristics (i.e., maternal distress reactions), and child characteristics (i.e., effortful control and negative affect) on maternal scaffolding behaviours and preschool children's social skills were also examined. There were several hypotheses that were partially supported which will be discussed in greater detail below.

Maternal Scaffolding and Children's Social Skills

The first hypothesis of the study investigated the relationship between maternal scaffolding behaviours and children's social skills. Specifically, it was proposed that higher levels of maternal cognitive, emotional, autonomy and overall scaffolding supports would be associated with higher levels of children's social skills. The results of the study did not lend support to this hypothesis.

First, it should be noted that current studies examining the influence of parental scaffolding behaviours on children's social skills are limited and most studies have only utilized clinical samples of preschool children (Baker et al., 2007; Clark et al., 2013; Mermelshtine et al., 2017). In particular, clinical samples include children who engage in substantial levels of aggressive behaviour (Clark et al., 2013) and children who have experienced delays in their

developmental trajectory (Baker et al., 2007). For children with developmental delays and

clinical levels of aggressive behaviours, they may be more likely to have decreased self-

regulatory capacities that impair their social functioning (Clark et al., 2013; Merell & Holland,

1997). As such, it could be that for children with higher likelihood of self-regulatory difficulties,

parents who employ maternal scaffolding behaviours (e.g., employ cognitively directive

assistance or emotional feedback), may foster their self-regulation skills, which may

subsequently impact their social skills. This has been supported in the literature by Sun and Tang

(2017) where maternal scaffolding strategies did predict children's self-regulation skills.

However, in contrast, with a community sample, like the one used in the present study, the

distribution of self-regulatory capacities is assumed to be normative, so the effects of maternal

scaffolding on self-regulation and ultimately on children's social skills may not be as pertinent.

Moreover, differences in findings may possibly be explained by the nature of the parent-

child task that was coded for maternal scaffolding behaviours. Previous work examining the role

of maternal scaffolding on children's social skills have utilized free-play tasks or structured

teaching tasks, such as building blocks (Clark et al., 2013; Pettygrove et al., 2013; Neitzel &

Stright, 2003). As such, it may be that in the context of birthday planning where the child can

exercise their creativity, the extent of maternal scaffolding behaviours that mothers display, and

employ may differ in comparison to a structured teaching task. This appears to be supported in

the study data, as emotional and autonomy maternal scaffolding behaviours were found to have

non-normative distributions, suggesting that the level of these supports employed by mothers

during the task was more varied.

Lastly, there is also emerging work in literature that parental scaffolding supports are

associated with increased prosocial behaviours seen in children (Landry et al., 2006;

Mermelshtine et al., 2017). For instance, in the study conducted by Pettygrove and colleagues

(2013), the researchers found that when parents utilized scaffolding for cleaning up tasks or

helping tasks, it was predictive of later empathy and instrumental helping behaviour in children.

As such, it is possible that parental scaffolding behaviours may be more relevant for children's

social skills development regarding prosocial behaviours, such as helping behaviours. Given that

the Social Skills Rating System (Gresham & Elliott, 1990) was used, it could be that facets of

prosocial behaviours (e.g., helping others) may not have been as heavily assessed given that

Social Skills Rating System encompasses a wide domain of social skills for effective

interpersonal relationships (e.g., cooperation and self-control). Future research may consider

using other measures of social skills that specifically examine facets of prosocial behaviours,

such as the Prosocial Behaviour subscale in the Child Behaviour Scale (Ladd & Profilet, 1996).

Parental Emotion Socialization Practices, Maternal Scaffolding and Children's Social Skills

Previous research has shown that parenting behaviours and child's outcomes such as

children's social competence can be influenced by parent characteristics, such as their emotion

socialization practices (Newland et al., 2011; Secer et al., 2016). Parents' emotion socialization

practices determine how parents' express emotions and react to emotions elicited by the child,

which in turn can serve as a model of children's socioemotional development and self-regulation

skills (Havighurst & Kehoe., 2017). As such, one form of parent emotion socialization practice,

maternal distress reactions (how distressed moms are in response to children's negative affect)

may impact their scaffolding behaviours and children's emotional development and related

outcomes (i.e., social functioning; Khabir et al., 2015).

Two hypotheses in this study examined the association between maternal distress

reactions and their association with maternal scaffolding behaviours and children's social skills.

First, it was proposed that higher levels of the maternal distress reactions would be associated with lower levels of scaffolding behaviours. The findings from this study did not lend support to this hypothesis, as no significant association was found between maternal distress reactions and maternal scaffolding behaviours. In terms of the maternal distress reactions, it should be noted that the reliability of this subscale just meets an acceptable range of reliability (Cronbach's alpha = .60) which could have influenced the accuracy of the construct. Nevertheless, several explanations may account for these findings, which will need to be explored in future research. It could be that parents' scaffolding behaviours are simply not influenced by parents' reactivity towards children's negative emotions, as it does not diminish their capacity to engage in effective scaffolding behaviours as opposed to other parent characteristics (i.e., parent mental health). For instance, in a study conducted by Hoffman and colleagues (2016), it was found that mothers who experience elevated levels of depressive symptoms were less likely to provide effective emotional scaffolding due to the compromises in their sensitivity and ability to detect their child's needs (Hoffman et al., 2016). Alternatively, it could be that these effects may only be seen in children who demonstrate consistently high levels of negative affect, which may increase parent's level of frustration and in turn influence the level of maternal scaffolding behaviours and maternal distress reactions they experience. Previous work has shown parents exhibit higher levels of negative parenting (e.g., lack of responsiveness) for children who display higher levels of negative affect (Dargis & James, 2020).

Secondly, it was hypothesized that increased maternal distress reactions to children's negative affect would be associated with lower levels of children's social skills. This study found no significant association between mater, maternal distress reactions and children's social skills. Current literature has only found support for the association between parents' distress reactions

to negative affect and difficulties with self-regulation in children (Khabir et al., 2015, Lincoln et al., 2017). As such, it may that maternal distress reactions are related to children's emotional regulation skills, but these effects may not extend to children's social skills directly (Khabir et al., 2015).

Children's Temperament, Maternal Scaffolding and Children's Social Skills

Children's temperament has been found to influence parenting behaviours and impact children's social skills (Klein et al., 2018; Séguin, & MacDonald, 2018; Suor et al., 2019). As such, two hypotheses of this study investigated the relationship between children's temperament, specifically negative affect and effortful control and its association with parent scaffolding behaviours and children's social skills. In terms of maternal scaffolding behaviours, it was hypothesized that children with higher levels of negative affect and lower levels effort control would be associated with lower levels of maternal scaffolding supports employed. Interestingly this hypothesis was only partially supported. The results from this study found a significant association between autonomy maternal scaffolding behaviours and children's effortful control, but not for children's negative affect. These findings are consistent with the literature (e.g., Hammond et al., 2012; Lengua et al., 2007). In a study conducted by Klein and colleagues (2018), the researchers also found an association between maternal warmth (which encompassed autonomy support) and an association with children's effortful control, but not negative affect. As such, it may be that autonomy maternal scaffolding behaviours present an opportunity for the children to develop their own self-regulatory capacities (Klein et al., 2018; Lengua et al., 2017).

Furthermore, it was also proposed that children with higher levels of negative affect would have lower levels of children's social skills and that children with lower levels of effortful

control would have higher levels of social skills. These hypotheses were supported and were also

consistent with findings in current literature (e.g., Hosokawa & Katsura, 2017, Rispoli et al.,

2013). In current literature, it has been theorized that children's negative temperament (i.e., high

negative affect and low levels of effortful control) may lead to lower levels of social competence

due to a lack of social skills to engage effectively with others (Acar et al., 2015). However, it is

worth noting that given the correlational data used in the study, there may also be bidirectional

effects between children's social skills and children's temperament. Previous research has shown

that preschool children who were rejected by peers were rated by teachers as displaying higher

levels of negative affect (Walker et al., 2001). As highlighted by Bornstein and colleagues

(2019), despite the stability of child temperament, this does not rule out that child temperament

may be malleable to the effects of the child's characteristics, including the level of children's

social competence.

Children's Temperament as a Self-Regulation Measure

Emerging work also appears to suggest that the facets of child temperament, particularly

effortful control can be conceptualized as a part of an integrated model of self-regulation in

preschool children (Rothbart, 1991; Schmidt et al., 2022). Self-regulatory skills refer to one's

ability to modulate their emotion, cognitive, and behavioural responses that are relevant in their

given environment or development (Fuhs et al., 2013). Given that significant associations were

found between autonomy maternal scaffolding behaviours, children's social skills, and children's

temperament, regression analyses were conducted to further explore the nature of these

relationships. The purpose of these analyses wasto examine whether maternal scaffolding

behaviours and children's social skills would predict children's effortful control, which can be

conceptualize as an index for self-regulation skills. The results found that children's social skills

predicted children's effortful control. As such, this suggests that children with higher levels of

social skills would be more likely to have higher levels of effortful control (i.e., less self-

regulatory difficulties). While these findings may indicate that children's social skills play a role

in the development of children's self-regulation skills, across preschool years, this should be

interpreted with caution given the cross-sectional nature of the data.

Furthermore, autonomy maternal scaffolding behaviours did not emerge as a significant

predictor for children's effortful control. These findings appear to run contrary to current

literature on maternal scaffolding, as studies have found that maternal scaffolding predictd

increases in children's effortful control (Neale & Whitebread, 2019; Lengua et al., 2007).

However, it may be that these studies utilized a different conceptual framework to assess parental

scaffolding, as opposed to Neitzel and Stright (2003), which breaks down scaffolding into three

types of support. Alternatively, it may also suggest parental scaffolding behaviours do not

influence the stability of more enduring constructs such as child temperament, as opposed to the

components of executive functioning, which are thought to be more subjective to malleability

from environmental influences (Fay-Stammbach et al., 2014). Further research may need to

continue exploring the effects of the maternal scaffolding behaviours on children's self-

regulation skills through the use of the longitudinal data, specifically utilizing child temperament

as a self-regulatory measure.

In regard to negative affect, maternal distress reactions was a significant predictor of

children's negative affect. As such, this suggests that mother's distress reactions to children's

negative emotions may also further elicit negative affect in children (Acar et al., 2015; Sanson et

al., 2004). In addition, children's social skills, again, emerged as a predictor for children's

negative affect. As such, these findings appear to suggest the children's social skills may play a

role in shaping children's, self-regulatory capacities, such as their ability to inhibit and delay a

dominant response and their level of negative emotionality.

Limitations and Future Directions

Several limitations of this study should be considered when interpreting results. Despite

attempts made to recruit both mothers and fathers, the sample only consisted of mother-child

dyads. This limits the generalizability of findings from this study and as such future work should

aim to examine the effects of father's scaffolding behaviours on children's social skills. Previous

research has shown that across different parent-child interaction tasks, fathers and mothers may

employ varying levels of scaffolding support (Huang et al., 2022; Huang et al., 2021). For

instance, in a study conducted by Huang and colleagues (2021), results found that father's

scaffolding behaviours were associated with children's mathematical performance, as they

employed autonomy supports compared to mothers who employed whereas mothers provided

more cognitive and emotional support (Huang et al., 2021). Given these findings, differences in

scaffolding supports employed by fathers compared to mothers may also extend to children's

social skills. Furthermore, it should also be noted that there is overrepresentation of Caucasian

families in parent-child dyad, making up almost 90% of the sample. Similar to parenting

behaviour, parent scaffolding behaviours can also be highly influenced by parent's cultural

values and beliefs surrounding. For instance, among Chinese parent-dyads, less emotional

supports employed to children have often been reported (Huang et al., 2022). In addition, a study

conducted Kermani and Brenner (2002) found that in comparison to American mothers with

preschool children, Iranian immigrants mothers utilized more directive forms of scaffolding,

indicating that there are cultural differences in use of scaffolding behaviour. As such, to improve

generalizability and the findings, future studies should also consider attempting to recruit more

diverse community samples of parent-child dyads (Yom et al., 2022).

Several measures of the study only had maternal ratings on child variables. In assessing

for children's social skills and child temperament, it may be beneficial to observe the child

across different contexts (e.g., daycare; Acar et al., 2018). As such, future research may consider

employing multiple raters (e.g., second parent, teacher) or even have laboratory measures or

observations of parent emotion socialization practices, to eliminate potential self-report bias. In

addition, given that the data was only collected at one time point, the nature of the data is

correlational, and no casual mechanisms can be drawn (Barrowman, 2014). While majority of

the results are interpreted from a unidirectional lens (i.e., from mother to child), it should be kept

in mind the effects are bidirectional nature and parent-child interactions are transactional. Future

studies should also consider collecting multiple time points of parental scaffolding behaviours,

child temperament and children's social skills in order to further explore additional factors that

could mediate or moderate these relationships.

As stated, current research examining the role of parent scaffolding behaviour and

children's social skills are still limited and a lack of studies have considered the impact of

contextual factors, including parent and child characteristics (Mermelshtine et al., 2017). As

such, future work should aim to replicate studies or extend current work to further elucidate the

potential mechanisms between mixed findings on the role parental scaffolding behaviours on

children's social skills. For instance, having a measure for children's self-regulation skills could

test whether self-regulation is an underlying mechanism for the influence of parental scaffolding

on children's social skills, as theorized in previous work (Clark et al., 2013; Haven et al., 2014).

Lastly, the dataset was collected before the COVID-19 pandemic and as such parent scaffolding

behaviours may have been a bit different than how parents employ autonomy support, emotional

support, and cognitive support during and post-COVID-19 pandemic. Specifically, given the

increased number of stressors experienced during the pandemic including increased public health

measures, increased time spent at home, increased parenting distress may also impact the quality

of parent-child interactions (Esler et al., 2011). However, it also presents a unique circumstance

(given that it is pre-pandemic data) where it can be utilized in future research to compare

differences in parent scaffolding behaviours before and after the COVID-19 pandemic.

Nevertheless, the findings of this study should be interpreted with the context of parent-child dyad

in mind.

Implications for Children's Social Competence

        While the study did not find a positive association between parent scaffolding behaviours

and children's social skills, preliminary evidence does provide some support for parent

scaffolding behaviours on children's self-regulation skills. In particular, during the preschool

years when these self-regulatory skills are emerging and developing rapidly, parental

scaffolding, specifically the use of autonomy may serve as a facilitator for effortful control

(Hoffman et al., 2016). As such, while the influences of parent scaffolding are not directly linked

to children's social skills, there may still be indirect contributions through facilitating children's

self-regulatory capacities. In regards to early prevention initiatives, parent scaffolding strategies

for preschool children may be a way to further support the growth and development of adaptive

self-regulation.

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APPENDIX A

Demographics

Please complete this brief questionnaire (use the back if needed). All data are confidential and

will not be used in any way that identifies you or your child. If you have any questions

concerning any of the items, please do not hesitate to ask them.

Today's Date _____

Child's birth date (please include day, month, and year)

_____

Child's current grade _____

Child's gender

_____

Your relationship to child (e.g., mother, father)

_____

Parents' Marital Status

□   Married, If so, for how long? _____
□   Divorced
□   Separated
□   Living together, If so, for how long? _____
□   Remarried
□   None of the above (Please Specify:

_____

Who does the child live with most of the time?

□   Mother

□   Father

□   Step-father

□   Step-mother

☐   Other (Please Specify:

_____

Father's education

☐   Less than 7 years
☐   Junior high school (Grade 9)
☐   Some high school (Grade 10 or 11)
☐   Graduated from high school or equivalent high school diploma
☐   Some college or university (at least one year)
☐   Graduated from college or university
☐   Graduate/professional school (e.g., Master's, Ph.D.)
☐   Other _____

Mother's education

☐   Less than 7 years
☐   Junior high school (Grade 9)
☐   Some high school (Grade 10 or 11)
☐   Graduated from high school or equivalent high school diploma
☐   Some college or university (at least one year)
☐   Graduated from college or university
☐   Graduate/professional school (e.g., Master's, Ph.D.)
☐   Other _____

Please describe stepparents' education if applicable:

Stepmother:

☐   Less than 7 years
☐   Junior high school (Grade 9)
☐   Some high school (Grade 10 or 11)
☐   Graduated from high school or equivalent high school diploma

☐   Some college or university (at least one year)
☐   Graduated from college or university
☐   Graduate/professional school (e.g., Master's, Ph.D.)

☐   Other _____

Stepfather:

☐   Less than 7 years
☐   Junior high school (Grade 9)
☐   Some high school (Grade 10 or 11)
☐   Graduated from high school or equivalent high school diploma
☐   Some college or university (at least one year)
☐   Graduated from college or university
☐   Graduate/professional school (e.g., Master's, Ph.D.)
☐   Other _____

Mother's occupation

_____

Father's occupation

_____

Please describe stepparents' occupations if applicable:

_____

_____

Mother's ethnicity: (please choose the one that fits best)

☐   South Asian
☐   East Asian
☐   Caucasian
☐   African Canadian
☐   Caribean
☐   Hispanic
☐   Native Canadian
☐   Biracial - Please Specify

_____

☐   Multi-racial - Please Specify

_____

☐   Other – Please Specify _____

Father's ethnicity (please choose the one that fits best):

☐   South Asian
☐   East Asian
☐   Caucasian
☐   African Canadian
☐   Caribbean
☐   Hispanic
☐   Native Canadian
☐   Biracial - Please Specify

_____

☐   Multi-racial - Please Specify

_____

☐   Other – Please Specify _____

If applicable: Stepfather's ethnicity

☐   South Asian
☐   East Asian
☐   Caucasian
☐   African Canadian
☐   Caribbean
☐   Hispanic
☐   Native Canadian
☐   Biracial - Please Specify

_____

☐   Multi-racial - Please Specify

_____

☐   Other – Please Specify _____

If applicable: Stepmother's ethnicity

☐   South Asian
☐   East Asian
☐   Caucasian
☐   African Canadian

☐   Caribean
☐   Hispanic
☐   Native Canadian
☐   Biracial - Please Specify

_____

☐   Multi-racial - Please Specify

_____

☐   Other – Please Specify _____

Has your child been diagnosed with a disability or a psychological disorder?

_____

If so, please specify

_____

Has your child been suspected of having a learning disorder?

If so, please specify

_____

Do you think your child has a disorder of any kind?

_____

If so, what do you think the child has?

_____

Is your child receiving any psychological services? _____

If so, please describe:

_____

Does your child have a serious illness? _____

If so, please specify

_____

Is your child currently taking any medications? _____

If so, please specify

_____

Approximate total annual income of parent(s) who live with the child

☐   Under $30 000
☐ $ 30 000 to $60 000
☐ $ 61 000 to $100 000
☐ $ 101 000 to $150 000
☐ $ 151 000 to $250 000
☐   Over $250 000

Does your child have any siblings? If so, please indicate gender and date of birth for each child.
_____
_____

How would you describe your child as an infant? (e.g., easy, difficult, slow-to-warm up)
_____
_____
_____

Imagine that your child came to you and told you that another child hit your child while they were playing on the playground. What would you tell your child to do?
_____
_____
_____

Imagine that your child came to you and told you that another child was telling other children not to be friends with your child. What would you tell your child to do?

_____

_____

_____

Please tell us anything else that you think we should know:

_____

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