Examining Mothers', Fathers' and Preschool Aged Children's Use of Internal State Language

Within Emotion-Focused Conversations

by

Vincenza Virginia Alba Martinovich

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Education

in

School and Clinical Child Psychology

Department of Educational Psychology
University of Alberta

Abstract

This study examined mothers' and fathers' use of internal state language (ISL) within the context of an emotion-focused task with their preschool aged children. Parental differences in ISL were analyzed, as well as whether or not mothers and fathers differentiated their use of ISL depending on their perception of their child's internalizing and externalizing difficulties. Children's use of ISL was also examined in relation to their social-emotional functioning, as reported by their parents. Forty, two parent families and their children (20 boys, 20 girls, 3.5 – 5 years old, mean age = 4.4 years) were asked to discuss 12 cards with pictures of children's facial expressions. Each child was videotaped in their home completing this Emotions Task once with each parent, and parent-child conversations were later transcribed and coded for type and function of ISL. Mothers and fathers also completed the Behaviour Assessment System for Children (BASC-II), providing a measure of their child's internalizing and externalizing difficulties. Results indicated no significant differences between mothers' and fathers' use of ISL, nor any significant differences between males and females. While neither parent was found to differentially employ ISL depending on their perception of their child's social-emotional functioning, the type of ISL utilized by children during conversations with their mothers was predictive of their internalizing and externalizing difficulties. Findings are discussed in relation to previous research on the development of children's emotion knowledge and use of ISL within early childhood. Future directions, limitations, as well as implications for educators, parents, and practitioners are also presented.

Acknowledgements

Firstly, I would like to thank my supervisor, Dr. Christina Rinaldi, for her ongoing feedback and support. You have inspired me to conduct research with children and families, and have encouraged me to challenge myself to think critically, both as a researcher and a future practitioner. For this, and all of your time and efforts, you have my thanks. I would also like to extend my sincerest gratitude to Dr. Lia Daniels and Dr. Mark Gierl for serving as part of my examination committee. Your time, energy, and constructive feedback are an invaluable asset, and are greatly appreciated. To my parents, thank you for being a constant source of strength and support, as well as for your endless faith in me. You have always taught and shown me that I can accomplish my goals through hard work, dedication, and perseverance, and for this I am eternally grateful. Lastly, to my partner, Iain, thank you for your unending patience and encouragement, and for supporting me wholeheartedly throughout this entire journey.

Table of Contents

List of Tables

Introduction

Overview of the Problem

From an early age, children are faced with the challenge of interpreting the emotions, intentions, and behaviours of individuals in their social world (Dunn, 1988). Their budding curiosity towards those around them is coupled with more complicated theories of others (Dunn, 1988). The capacity to understand others' perspectives, however, develops over a longer period of time in comparison to other abilities emerging in early childhood (Dunn, 1988). By the age of two, children become interested in the feelings of others, and by three they begin to develop an understanding of others' goals, emotions as well as an awareness of the internal mental world (Dunn, 1988; Wellman & Estes, 1986). This burgeoning perception of others' feelings states relates to children's growing capacity and curiosity to conceive other minds (Dunn, 1988). At the preschool age, children begin using language to comprehend emotion states and negotiate interpersonal situations (Bronson, 2000).

Parents play an integral role in modeling and shaping their children's understanding of emotions. During the preschool years, parents promote certain developmental milestones such as children's ability to discuss the mental states of themselves and others and gain an understanding of other minds (Bronson, 2000). Children's capacity to label, recognize and understand emotions has been related to the quality of their school adjustment, academic success, as well as their social skills and competence (Denham, Bassett, Way, Minic, Zinsser, & Graling, 2012; Denham, Blair, DeMulder, Levitas, Sawyer, Auerbach-Major, & Queenan, 2003; Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001; Rhoades, Warren, Domitrovich, & Greenberg, 2011). Conversely, deficits in this ability referred to as emotion knowledge (EK) have been associated with internalizing and externalizing behaviours (Heinze, Miller, Seifer, Dickstein, & Locke,

2015; Trentacosta & Fine, 2010). The type of internal state language (ISL) children are exposed to influences their capacity to understand mental states and emotions (LaBounty, Wellman, Olson, Lagattuta, & Liu, 2008). Parents who are emotionally expressive and responsive, supportive of their child's emotional expressions, and engage in conversations with their child about their own emotions help to foster their child's EK (Denham & Kochanoff, 2002; Denham, Zoller, & Couchoud, 1994; Ensor, Spencer, & Hughes, 2011). Taken together, these findings highlight the importance of children's early experiences and familial influences on their developing understanding of emotions.

Despite some preliminary work, further research is necessary in order to expand our current understanding of the way in which parents utilize language within emotion-focused discussions. Past research is overwhelmingly mother-centric, focusing almost exclusively on mothers and their children, and not considering fathers' unique contributions. Therefore, the purpose of this study is to examine how both mothers and fathers facilitate an emotion-focused task with their preschool aged children. The main research question examined parents' and children's use of ISL within an emotion-focused task. Additional research questions examined (1) the relationship between mothers' and fathers' use of ISL and their perceptions of their child's internalizing and externalizing difficulties and (2) the relationship between children's use of ISL and their parent's ratings of their internalizing and externalizing difficulties.

Literature Review

The following section provides a review of the literature on emotion knowledge (EK) and internal state language (ISL) in the preschool years. It begins by presenting the theoretical frameworks that guide the current study's research questions and hypotheses. Next, it provides a definition of EK and ISL and discusses their influence on socio-cognitive and social-emotional development in early childhood. Gender and parental differences in ISL are also presented and notable gaps in the literature are identified. Finally, this section includes a review of the relationship between familial use of ISL and internalizing and externalizing problems in early childhood; an area that has not been fully explored in the existing literature.

Theoretical Framework: **Social-Constructivism**

Social constructivism emphasizes the role of social relationships, understanding and interactions on human learning and development (Adams, 2006; Liu & Chen, 2010; Vygotsky, 1962). Through cooperation, communication, and mutual exchanges with others in their social environment, individuals are conceptualized as active participants in their development (Stetsenko & Arievitch, 1997). The significance of culture systems such as language are also incorporated in social constructivism, and serve as a representation of accumulated knowledge of past generations (Stetsenko & Arievitch, 1997). Essentially, this framework characterizes human development as a "socially embedded process" (Stetsenko & Arievitch, 1997, p. 161).

From a social constructivist perspective, dyadic engagement in early childhood influences children's developing understanding of the mind (Carpendale & Lewis, 2006, Carpendale & Lewis, 2004). Through conversations and social experiences such as community rituals or family routines, knowledge of the social world is constructed (Carpendale & Lewis, 2004; Mallory & New, 1994). Such interactions expose children to language about mental states and promote their

social understanding (Carpendale & Lewis, 2004). With time, children come to internalize key components and approaches modeled by the primary socialization influences in their language-learning environment (Jenkins, Turrell, Kogushi, Lollis, & Ross, 2003). In drawing upon the work of Vygotsky, Piaget, and Wittgenstein, the social-constructivist perspective advocates conceptualizing children as "emotional beings" (Carpendale & Lewis, 2006, p. 254) whose social relationships facilitate their understanding of the social world.

Vygotskian Perspective. Vygotsky proposed that "learning and development are interrelated from the child's very first day of life" (Vygotsky, 1978, p. 37) and "conceptualized development as the transformation of socially shared activities into internalized processes" (John John-Steiner & Mahn, 1996, p. 192). Stemming from this perspective, learning and development occur within social interactions in which individuals rely on those with greater expertise in acquiring novel skills, strategies and knowledge (John-Steiner & Mahn, 1996). Information attained through this shared process eventually becomes internalized and amalgamated into the individual's personal repertoire (John-Steiner & Mahn, 1996). Vygotsky "revealed the significant role of social interaction in cultural development in his investigations of children's appropriation of socially elaborated symbol systems in the acquisition and internalization of language" (Mahn, 1999, p. 344). Through conversations with caregivers, children are exposed to language as a means of regulating their behaviour, and come to develop a form of "inner speech" (Mahn, 1999, p. 344), helping to facilitate certain abilities, such as problem solving (Mahn, 1999; Vygotsky, 1987).

In the context of parent-child interactions, caregiver modeling and scaffolding serves an important role in children's social-emotional development. Through scaffolding, caregivers alter tasks that are beyond their child's level of understanding, helping them to achieve mastery by

providing appropriate assistance and support (Hammond & Carpendale, 2015). "Prompts, clues, modeling, questions, strategies and other supports" (Bronson, 2000, p. 20), are ways in which caregivers can assist children in performing tasks outside of their skillset. Children collaborate with this more knowledgeable other in order to move beyond their current level of understanding (Mallory & New, 1994). Behaviours and skills are adopted into the child's own cognitive constructs once they are viewed and repeated under the guidance of this competent other (Mallory & New, 1994).

Additionally, parents may purposely use certain mental state terms in order to develop their child's understanding of the mind (Taumoepeau & Ruffman, 2006). Studies which examined how parents differentially discuss emotions with children of different ages suggest that they consciously alter the amount of attention they allocate to discussing certain emotions to match their child's level of emotion understanding (Van der Pol et al., 2015). This scaffolding process attends to their zone of proximal development; the difference between what a child is capable of doing independently and alongside a more knowledgeable other (Litowitz, 1996; Vygotsky, 1978). According to Vygotsky, learning and transmission of cultural knowledge occurs within this space (Litowitz, 1996). As children are exposed to the language of a more knowledgeable other, they begin to internalize this language (Litowitz, 1996). Consequently, children's exposure to mental state language influences their learning and understanding of emotions as well as others' perspectives (Carpendale & Lewis, 2004; Recchia & Howe, 2008; Taumoepeau & Ruffman, 2006).

Social Cognitive Theory. Bandura proposed that "humans have evolved an advanced capacity for observational learning" (Bandura, 2005, p. 28) which is vital to their development and survival (Bandura, 1986). Learning through observation allows individuals to gain an

understanding of rules and standards for behaviour without having to experience a period of trial and error (Bandura, 1986). According to social cognitive theory, individuals learn through observing and imitating behaviour (Bandura, 1986). This modeling exceeds "behavioural mimicry" (Bandura, 1999, p. 25), as it serves to foster generative and inventive behaviour. Once behaviours are learned, they can be adapted and employed in novel situations. Thus, modeling inspires innovation and creativity (Bandura, 1986; Bandura, 2005).

The social cognitive perspective conceptualizes individuals as knowing and active subjects, as opposed to being driven by biological responses or controlled by external stimuli (Bandura, 1999; Bandura 1986). Human functioning is conceptualized in the form of "triadic reciprocality" (Bandura, 1986, p. 18), meaning that one's environment, personal attributes, cognitions, and behaviours interact and influence one another (Bandura 1986). Individuals are viewed as active agents in their development and capable of behaving intentionally, self-regulating and exerting self-awareness (Bandura, 2005). According to Bandura (2005), modeling and guided enactment can be conceptualized as providing cognitive representations that serve to foster individuals' behavioural proficiency. In the context of early childhood, instructive feedback provided by models, such as parents, can help children develop and master certain behaviours (Bandura, 2005).

Additionally, Bandura (2005) proposed that modeling in the form of verbalization plays a role in the development of cognitive skills (Meichenbaum, 1984). Such modeling involves the explicit discussion of one's thought process as he or she engages in problem solving; for example, reasoning, strategizing, as well as the consideration of potential solutions, outcomes, or consequences (Bandura 2005; Meichenbaum, 1984). This extends to the parent-child relationship, as mothers' and fathers' verbal modeling can exemplify deductive skills that can be extended to

novel situations. As parents verbalize the thoughts behind their decisions and behaviours, children become increasingly aware of the reasoning that shapes their actions.

Family Systems Theory. Another theoretical perspective that informed the present study is family systems theory (FS). Systems theorists propose that "the system (eg. family) is made up of complex relationship patterns between its members and between its members and the outside world" (Gunn Jr, Haley, Prouty, & Robertson, 2015, p. 317). FS conceptualizes the family as a social system in which all members reciprocally influence one another (Minuchin, 1985; Palkovitz, Trask, & Adamsons, 2014). According to this perspective, individuals are best understood in relation to their interactive family unit, or system (Minuchin, 1985). Through examining familial relationships within the larger family unit, the FS perspective seeks to uncover how subsystems such as dyadic parent-child relationships interact and influence one another, as well as individual members (Palkovitz et al., 2014). The FS perspective has been employed to guide empirical work on children's early social and emotional development; its sensitivity to various relationships within the family unit goes hand in hand with the move towards the inclusion of both caregivers and other significant adults in contemporary research.

Taken together, all of the above theoretical perspectives highlight the importance of social relationships and interactions in fostering children's learning, development, and understanding of their social world. These perspectives conceptualize children as emotional and active participants capable of observing, imitating and engaging in mutual exchanges, facilitating their accumulation of culturally appropriate knowledge and skills. As primary socialization influences in early childhood, caregivers play an essential role in this transmission of knowledge through the way in which they interact and engage with their children.

Significance of Family Research Today

Changes in familial dynamics warrant the purposeful inclusion of both mothers and fathers in parenting research. In 2015, Statistics Canada published a report examining the employment patterns of families with children between the years 1976 to 2014 (Uppal, 2015). As women have become increasingly involved in the workforce over this period of time, men's participation in child rearing has also seen an upward trend; a change which has created shifts in the employment structure of Canadian families (Uppal, 2015). Over this period of time, the percentage of families with stay at home parents decreased from 53% in 1976 to 18% in 2014, with some variation between provinces (Uppal, 2015). Additionally, the proportion of stay at home fathers, lone-mother and lone-father families with children, families with mothers as the sole earners, as well as dual-earner couples have increased over time (Uppal, 2015). Currently, "families with two full-time working parents represent at least one-half of all couple families with children in Canada" (Uppal, 2015, p. 8).

Within the United States, Cabrera, Tamis-LeMonda, Bradley, Hofferth and Lamb (2000) discuss how increased ethnic and cultural diversity due to immigration has facilitated the recognition of varied perspectives surrounding suitable parenting roles. As family organization diversifies and the role of fathers becomes more multifaceted (Lamb, 2010), the idea of a "universal conception of fatherhood" (Cabrera et al., 2000, p. 128) is questioned. Between 1996 and 2008, Hofferth, Pleck, Goldscheider, Curtin, and Hrapczynski (2013) reported "increased proportions of children living with unmarried biological parents or one biological parent and a cohabiting partner" (p. 59) as well as "increases in the proportion of children living with a single biological father" (p. 59) across three racial and ethnic groups of children: White, Hispanic, and Black. While father involvement has changed over time and fathers have become

increasingly involved in family life, father absence has also increased (Cabrera et al., 2000; Hofferth et al., 2013). In response to these changes in family structure, researchers have identified the urgent need for research to be "updated" (p. 358) in order to better represent parenting in contemporary society (Kwon, Jeon, Lewsader, & Elicker, 2012). Research conducted with families from previous generations does not reflect the experiences, attitudes, or social roles of today's parents, as the structure of the family unit has shifted over time. Thus, parenting research conducted with families living in contemporary society is paramount.

Furthermore, mothers and fathers play distinct roles and interaction styles with their infants (Ateah, Kail & Cavanaugh, 2009), calling for the inclusion of both parents in current research. Fathers, for example, spend more time engaging in physical and unpredictable play with their young children in comparison to the amount of time spent caregiving (Ateah et al., 2009; Lamb & Lewis, 2010). Mothers' and fathers' parenting styles have also been found to uniquely and significantly predict certain child outcomes (Rinaldi & Howe, 2012). Rinaldi and Howe (2012) reported that fathers' authoritarian parenting predicted toddlers externalizing behaviors, whereas mother's permissive parenting predicted the same outcome. According to Roggman, Bradley, and Raikes (2013), "studies that include both maternal and paternal influences in the same analytic models show considerable support for the unique contributions by fathers, over at above the contributions of mothers, during several developmental periods" (p. 191). In order to gain a comprehensive understanding of child development and family functioning in two-parent homes in contemporary society, the inclusion of both parents is essential. Failing to incorporate the perspective of both parents leads to a narrow and potentially biased understanding of familial dynamics (Rinaldi & Howe, 2012). As such, the present study

purposefully includes mothers and fathers as a means of exploring how they uniquely facilitate emotion-focused discussions with their preschool aged children.

Emotion Knowledge (EK) in Early Childhood

Emotion knowledge (EK) has been defined as the ability to label, recognize, and understand emotions in facial expressions and social contexts (Izard et al., 2001; Kujawa, Dougherty, Durbin, Laptook, Torpey & Klein, 2014; Trentacosta & Fine, 2010). EK can be interpersonal, demonstrating an ability to detect others' feelings and emotions, or intrapersonal, indicating an understanding of ones own (O'Toole, Hougaard, & Mennin, 2013). In reference to early childhood, such understanding of emotions has been described as a "core aspect of human development" (Dunn, Brown, & Beardsall, 1991, p. 448). EK has been discussed as a predictor of adaptive social outcomes and academic competence (Izard et al., 2001; Trentacosta & Izard, 2007), and negatively related to internalizing and externalizing child behaviours (Heinze et al., 2015; Trentacosta & Fine, 2010). Within their meta-analytic review, Trentacosta and Fine (2010) examined the relationship between EK, social competence and behaviour problems, most specifically internalizing and externalizing difficulties in childhood and adolescence. They reported mean effect sizes in the small to medium range for internalizing ($r = -0.17$) and externalizing problems ($r = -0.17$) as well as social competence ($r = 0.22$; Trentacosta & Fine, 2010). Positive relationships between children's EK and quality of their early school adjustment, academic success and social relationships have also been discussed in the literature (Denham et al., 2012; Izard et al., 2001). Children's EK during the preschool years has been found to predict later social competence and academic achievement (Denham, Blair, DeMulder, Levitas, Sawyer, Auerbach-Major, & Queenan, 2003; Rhoades, Warren, Domitrovich, & Greenberg, 2011), whereas deficits in EK are predictive of future aggressive behavior (Denham, Caverly, Schmidt,

Blair, DeMulder, Caal, Hamada et al., 2002). Furthermore, gains in EK during the preschool years have also been shown to mediate the association between positive relationships in preschool and later achievement in kindergarten (Torres, Domitrovich, & Bierman, 2015)

Children's ability to grasp how situations make others feel and accurately recognize their emotion behaviours in such contexts contributes to their capacity to navigate interpersonal relations and respond appropriately in social situations (Denham et al., 2003; Heinze et al., 2015; Fine, Izard, Mostow, Trentacosta, & Ackerman, 2003). Children who lack the capacity to interpret emotion cues may become withdrawn or avoid peer situations (Heinze et al., 2015). Schultz, Izard, Ackerman, and Youngstrom (2001) propose that children with low EK often experience difficulty in interpreting the emotions of their peers. Consequently, these children may respond inappropriately in social situations, creating unintentional negative reactions in others (Schultz et al., 2001). Such behaviour can lead to further social isolation and withdrawal (Schultz et al., 2001). Essentially, a "lack of emotion knowledge handicaps a preschooler's ability to react appropriately to others, undermining her relationships; interactions with an emotionally knowledgeable agemate would likely be viewed as more satisfying, rendering one more likable" (Denham et al., 2002, p. 903).

Despite these findings, further attention towards understanding the origins of differences in EK is warranted (Dunn, Brown, & Beardsall, 1991). Provided that emotion knowledge skills are strengthened between the ages of three to five (Heinze et al., 2015) and have long-term effects (Izard et al., 2001), research should focus on this key developmental period.

Internal State Language (ISL)

Broadly speaking, "the term internal state language (ISL) subsumes linguistic devices that

are related to internal and mental states of the self or others" (Kauschke, Van der Beek, & Kamp-Becker, 2016, p. 842). Mental states have been conceptualized as "feelings, desires, beliefs, intentions, and other internal states" (Miranda, Baixauli, & Colomer, 2013, p. 1940). Examples of internal states discussed in the literature include thoughts, beliefs, intentions, emotions, goals, preferences, and traits (Meins, Fernyhough, Johnson, & Lidstone, 2006; Recchia & Howe, 2008). As evident by these definitions, there is considerable overlap in defining internal and mental states, which poses challenges for measuring ISL.

The acquisition of ISL relates to children's EK as it contributes to their sophisticated understanding of other minds. Mastery of ISL provides children with the means to communicate their feelings and navigate conflict situations effectively (Beeghly, Bretherton & Mervis, 1986). Over the course of the preschool years, children begin to discuss internal states, such as thinking and believing, and use language to facilitate their understanding of emotions (Bronson, 2000). Core components of 'theory of mind' (ToM) are also developing (LaBounty, Wellman, Olson, Lagattuta & Liu, 2008), as children begin to understand how external events and internal states influence one's behaviour (Pears & Moses, 2003). Children also realize that their own feelings and desires may not be the same, or similar, to those around them. This developing "interpersonal sensitivity" (Slaughter, Dennis & Pritchard, 2002, p. 546) enhances children's ability to identify others' feelings and perspectives, particularly in social situations. Consequently, the relationship between children's developing theory of mind and exposure to talk about internal mental states (Slaughter, Peterson, & Mackintosh, 2007), as well as maternal sensitivity to their infants' internal states (Ereky-Stevens, 2008) have been examined.

Type of ISL. Researchers have measured ISL within a variety of coding schemes, many of which overlap considerably with one another. Roger (2009) analyzed parental use of ISL by

breaking it down into the following categories: (1) emotion states, (2) cognitive states (goals, beliefs, and preference terms) and (3) physiological states (Roger, 2009). Conversely, ISL has been categorised and divided into positive emotions, negative emotions, valence reversal, abilities, obligation/permission, physiology, volition, cognition, moral standards/judgment, modulatory particles, and cognitive contrast particles (Lemche, Kreppner, Joraschky, & Klann-Delius, 2007). In 2008, LaBounty and colleagues classified ISL as follows: thought words, desire words, all emotion words, negative emotion words, basic emotion words, as well as most frequent emotion words. Additionally, Recchia and Howe (2008) coded children's and parents' references to beliefs, goals, emotions, preferences and other states/traits as various types of internal states in their examination of family talk about internal states. Most recently, Longobardi, Lonigro, and Laghi (2016) utilized a previously developed coding scheme (Bretherton & Beeghly, 1982) which included the following categories of ISL: physiological, perceptual, emotional, volition, cognition, and moral terms. While similarities can be noted amongst this selection of studies in terms of the components of ISL they include, their specific breakdowns demonstrate variation in how ISL is measured across studies.

Researchers have also analyzed categories of "mental state talk", which overlap with several of the coding schemes described above. Jenkins and colleagues (2003) investigated mental state talk by examining desire, feeling, and cognitive terms in parent's speech. Furthermore, researchers have studied mental state utterances by coding for emotion, desire, think/know, genuine think/know terms as well as modulations of assertion (Taumoepeau & Ruffman, 2006). Baptista, Osorio, Martins, Castiajo, Barreto, Mateus, Soares, and colleagues (2017) coded for maternal and paternal references to desires, emotions, and cognitions in their examination of the relationship between preschool children's executive functioning and parents'

mental state talk. The diversity of approaches in categorizing ISL as well as the alikeness to

mental state talk poses a significant challenge in comparing and replicating results. Thus, for the

purpose of this study, the coding scheme developed by Roger (2009) for the type of ISL will be

relied upon and illustrated in Table 1.

Table 1

Components of Internal State Language

Emotion States	Positive Terms	Examples: happy, excited, glad, pleased "She's *silly*" "That's *funny*"
	Negative Terms	Examples: Irritated, lonely, mad, sad, scared "He *doesn't* look too *happy*" "Is she maybe *upset* about something?"
	General Terms	Examples: surprised (when there is no indication of the quality of the surprise) or for other general emotional references "He's *surprised*" "What's she *feeling*?"
Cognitive States	Goals	Desires: want, wish, would like "I don't *want* to look at that picture" Attempts: try, seems "Want to *try* card number 10?" Obligations: need to, ought to, should, got to "*Should* we go to card number three?" Intentions : plan to, shall, mean to, expect to "*Shall* we talk about this card next?"
	Beliefs	Beliefs: think, wonder, guess, imagine, pretend "How do you *think* that boy is feeling?" "I want you to tell me what you *think*" Knowledge: sure, understand, know, remember "I don't *know*" "You're pretty *convinced* it's tired?"

	Preferences	Examples: enjoy, like/dislike, hate, love "You *like* that one?" "You *don't like* card number 12?"
Physiological States	Physiological States	Examples: sick, sleepy, tired, hungry, hurt "Is he *hungry*?" "Maybe she is *tired*."

Function of ISL. ISL serves a variety of functions within conversational interactions. ISL can be used within the context of a question ("What is the girl feeling?"), comment ("He looks angry"), request ("Show me your surprised face"), clarification ("You think she's happy?"), or as part of an incomplete idea ("Do you think?"), (Roger, 2009). The function of ISL has also been categorized as socialization of emotions (confirmation, disconfirmation or denial) as well attempts to guide behaviour (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997). In addition to this, Van der Pol and colleagues (2015) broke down the function of emotion talk into three categories: talking about emotions, talking about emotion behaviour, as well as talking about the cause of the emotion. Each of these three categories was divided further into the following variables of interest: asking, labelling, involving child, and involving other (Van der Pol et al., 2015). Thus, the way in which the function of ISL or emotion talk is measured greatly differs within the existing literature. For the purpose of this study, the scheme developed by Roger (2009) based on Denham et al. (1992) will be employed with slight adaptations (Van der Pol et al., 2015). The breakdown of this coding scheme is illustrated in Table 2.

Table 2

Function of Internal State Language

Commenting	Short statements that do not contain reasons or explanations. "I don't know" "He's happy" "She looks like she's sad about something"

Clarification	Explanations, discussions around the causes/consequences of emotions, and justifications. "She looks unhappy?" "He is angry because he wants his toy back."
Questioning	Asking general questions about emotions. "Why do you think she is excited?" "What do you believe the boy is feeling?"
Requesting	Requesting an action or imitating an emotion. "Show me your silly face" "Tell me which card shows the angry face"
Child Directed	Specific references to the child (and not the child in the emotion card) "You felt scared too last night." "He looks like you, constantly laughing."
Other Directed	Specific references made towards another person (and not the child in the emotion card) "He's happy just like your father" "Your brother feels worried sometimes."
Other	Incomplete ideas. "You think?" "Don't know?"

Gender Differences. Previous research reports mixed findings in terms of gender differences in preschool children's use of ISL. Most recently, Roger, Rinaldi, and Howe (2012) found no overall gender differences in children's (mean age = 32.5 months) use of ISL within an emotion-focused task. However, in analyzing mother-only and father-only interactions, Roger and colleagues (2012) discovered that preschool aged males used more ISL during conversations with their mothers than their fathers. This difference in ISL did not emerge within the female group. Dunn, Brown, and Beardsall (1991) also reported no gender differences in terms of children's references to feeling states throughout discussions with their mothers. In contrast, Dunn, Bretherton, and Munn (1987) noted significant gender differences; results demonstrated

that girls referred to feeling states more frequently than their male counterparts. These mixed findings highlight the importance of further research examining the influence of gender on children's use of ISL.

Additionally, children's capacity to understand mental states and emotions is influenced by the kind of internal state language they are exposed to (LaBounty et al., 2008). Recchia and Howe (2008) suggest that mothers' use of ISL impacts their children's while enhancing their understanding of other perspectives. They reported that when mothers used open and closed-ended questions as a means to encourage children's internal state references, children employed similar language (Recchia & Howe, 2008). Maternal prompting and feedback also facilitated children's growing understanding of alternative perspectives (Recchia & Howe, 2008).

Parental Use of Emotion Language and Internal State Language

Children's developing understanding of emotions and internal states does not occur in a "non-social vacuum" (Denham, Cook & Zoller, p. 301, 1992). Conversational interaction about feeling states between parents and their children influences their emotion knowledge, social-emotional (Denham, Cook & Zoller, 1992) as well as social-cognitive development (LaBounty et al., 2008). Exposure to a "rich emotional language repertoire" (Hesse & Cicchetti, p. 36, 1982) also facilitates and enhances emotional language development. Children learn how to assess, identify, and understand their emotions as parents discuss feeling states (Adams, Kuebli, Boyle, & Fivush, 1995). Additionally, children may come to internalize and replicate interpersonal approaches modeled by their parents (Bronson, 2000). As outlined by Harris, De Rosnay and Pons (2005), "the mother who is alert to her child's mental states, who accurately puts thoughts and feelings into words, and who nurtures her child's sensitivity to different mental perspectives

may have an effect on her child that is not unlike that of a clinician or therapist who fosters a reflective stance in his or her patients" (Harris et al. 2005, p. 72).

As children develop cognitively and linguistically, sensitive caregivers adapt their use of ISL to match their child's level of understanding (Beeghly, Bretherton & Mervis, 1986). Such adaptation reflects how caregivers act as scaffolding agents (Recchia & Howe, 2008) through tailoring their interactions to meet the needs of their child. Beeghley and colleagues (1986) found differences in maternal ISL with their 13, 20 and 28 months old children. At 13 months, mothers' use of ISL referred almost exclusively to their child through discussion of their perceptions or capabilities (Beeghly et al., 1986). In contrast, at 28 months, mothers' ISL expanded to reference others in the child's social world and incorporated physiological and cognitive terms (Beeghly et al., 1986). Similarly, when Adams and colleagues (1995) asked parents to discuss three shared past events with their child at 40 months (phase 1) and 70 months old (phase 2) notable differences emerged. During phase 2, parents were more likely to mention the feelings of others or those the child shared with others. In contrast, emotion references in phase 1 were primarily child focused (Adams et al., 1995). These adaptations in parental ISL correspond with children's emerging ability to understand the internal states of themselves as well as others.

Implications of Caregiver ISL in Early Childhood. Dunn, Brown and Beardstall (1991) reported a relationship between familial conversations about feelings at three years old and children's capacity to identify emotions three years later. Results indicated that frequent emotion state talk in the family context related to children's enhanced performance on the *Rothenberg Test of Social Sensitivity*, an affective perspective-taking task (Dunn, Brown & Beardstall, 1991). These children could more accurately determine how the actor in the scenario felt and detect changes in feeling states (Dunn et al., 1991). Additionally, Ruffman, Slade, and

Crowe (2002) conducted a longitudinal study that examined the relationship between mother's use of mental state utterances and their child's theory of mind understanding across time. At three different time points, children (2.18 to 4.04 years) independently completed language and theory of mind tasks, as well as a picture task with their mothers. Results demonstrated a correlation between children's theory of mind and mental state utterances and their mothers' mental state utterances (Ruffman et al., 2002). In fact, the relationship between mothers' use of mental state utterances and children's theory of mind emerged at all time points, even when controlling for mediating variables such as language ability (Ruffman et al., 2002). These results illustrate the influence that early emotion-laden discussions have on children's social-emotional development.

Limitations of Parental ISL Research. One significant limitation of the literature on caregiver use of ISL in early childhood is the minimal inclusion of fathers. The studies previously discussed, for example, relied almost exclusively on a sample of mothers and their children. In fact, the majority of research in the area examines mothers as "agents of emotion socialization" (Adams et al., 1995, p. 311) and excludes fathers.

Inclusion of both parents is crucial, as differences between mothers and fathers have emerged in recent literature. Roger et al. (2012) found that parents tended to use more ISL with their toddler/preschool-aged sons than their daughters. However, within this study, mothers and fathers did not differ in terms of the type of ISL (i.e. emotions, beliefs, goals, physiological, preferences) they used with an emotion-focused task (Roger et al., 2012). Results also indicated that both parents used emotion words more frequently than any other type of ISL (Roger et al., 2012). Mothers' greater use of comments in their ISL, however, predicted lower ratings of children's social skills; the higher the social skills ratings of the child, the less frequently mothers

used internal state language when commenting on the emotion cards (Roger et al., 2012).

LaBounty and colleagues (2008) also reported notable differences in parental use of ISL within a

picture-book task. Results demonstrated that fathers spoke similarly to their male and female

children (3.5-5 years old) about thoughts, desires, and emotion states. Mothers, however, used

more desire and thought vocabulary with their female children (LaBounty et al., 2008). Mothers

also discussed more internal states compared to fathers, and employed more explanatory

language when discussing emotions (LaBounty et al., 2008). These results also highlight the

influence that differences in parental use of ISL has on children's social-cognitive understanding;

mothers' use of ISL was found to be associated with children's emotion understanding (EU) and

fathers' use of ISL was related to their theory of mind (ToM; LaBounty et al., 2008).

Taken together, the above findings illustrate the importance of including mothers and

fathers in future studies examining ISL. While past research examining parental emotion

socialization and its impact on children's social-emotional development has been mother-centric

(Van der Pol et al., 2015), differences that have emerged in recent literature supports the

inclusion of both parents. Additionally, future research should examine how differences in ISL

relate to other facets of children's social-emotional development. At this point in time, no studies

have examined how mothers' and fathers' use of ISL relates to their perception of their child's

internalizing and externalizing difficulties.

Internalizing and Externalizing Behaviour in the Preschool Years

Historically, researchers have focused minimal attention on internalizing and

externalizing difficulties in early childhood in relation to ISL. The importance of early

identification and understanding of the developmental trajectory of these problematic behaviours

has been recognized in recent years. Campbell (1995) proposed that due to the rapid socio-

cognitive development occurring between the ages 2 to 6, it is crucial to examine behaviour problems that emerge during this critical period. Studies have reported that internalizing difficulties present during early childhood have the potential to persist and intensify with age, undermine social functioning (Coyne & Thompson, 2011) and impede healthy development (Carpenter et al., 2014). Externalizing difficulties have also been studied in relation to academic and cognitive deficits in children as young as 3 years old (Metcalfe, Harvey, & Laws, 2013). Additionally, internalizing and externalizing difficulties in childhood are positively correlated with one another (Burt, Obradovic, Long, & Masten, 2008) and associated with difficulty regulating emotions (Bronson, 2000). It is possible for children to be diagnosed with more than one internalizing or externalizing disorder, as well as both (Sattler, 2014).

Internalizing Difficulties. Children who experience internalizing difficulties present with symptoms such as social withdrawal, inhibition, depressed mood, anxiety, and somatic complaints (Campbell, 1995; Sattler, 2014). Provided that these behaviours are less observable in contrast to more aggressive tendencies (Izard et al., 2001), they are less likely to draw the attention of parents and educators (Sattler, 2014) despite their significant impact on children's social and academic functioning (Coyne & Thompson, 2011). Internalizing difficulties can also present in the form of anxiety and depression and tend to be more self-directed (Burlaka, Bermann, & Graham-Bermann, 2015).

Despite the similarity in prevalence to externalizing difficulties, our current understanding of internalizing problems in early childhood is nowhere near as comprehensive and requires further attention (Burlaka et al., 2015). In fact, preschool aged children have been described as a "neglected population in the study of psychopathology" (Shala & Dhamo, 2013, p. 1008). Recent international studies have provided prevalence rates for internalizing problems as

3.8% (Shala & Dhamo, 2013) and 9.7% (Dos Santos, Queiros, Barreto & Dos Santos, 2016).

Furthermore, Gleason and colleagues (2011) reported the following weighted prevalence rates

for children in pediatric settings in Romania: any emotional disorder (5.4%), any anxiety disorder

(4.5%), and any depressive disorder (1.4%). A study conducted in Reykjavik, Iceland

documented similar prevalence rates for anxiety disorders (5.7%) in an urban sample of

preschool aged children (Gudmundsson, Magnusson, Saemundsen, Lauth, Baldursson,

Skarphendinsson, & Fombonne, 2013).

Externalizing Difficulties. Conversely, externalizing problems are typically other-

directed (Burlaka et al., 2015). In early childhood, externalizing behaviours manifest as "over-

activity, poor impulse control, non compliance, aggression towards peers, and tantrums"

(Campbell, 1995, p.115); symptoms associated with attention-deficit/hyperactivity disorder and

oppositional defiant disorder (Metcalf et al., 2013). Externalizing behaviours can also present as

"acting out, disruptive behaviours, or conduct problems" (Sattler, 2014, p. 16). Previously, such

behaviours were thought to be typical of toddlerhood (Campbell, 1990) and that children would

outgrow them with time (Campbell, Shaw, & Gilliom, 2000). It is now widely understood,

however, that early-onset externalizing problems have negative consequences in terms of

children's present as well as future functioning (Sattler, 2014).

Lavigne and colleagues (1996) documented weighted prevalence rates for externalizing

problems within a sample of preschool children as 3.7%. More recently international studies,

however, reported prevalence rates of 25.2% in Brazil (Dos Santos, Queiros, Barreto & Dos

Santos, 2016) and 19.2% in Sri Lanka (Samarakkody, Fernando, McClure, Perera, & De Silva,

2012). Furthermore, Gudmundsson and colleagues (2013) listed weighted prevalence rates for

disorders associated with externalizing problems including oppositional defiant disorder as 2.8% and attention deficit hyperactivity disorder as 3.8% in an urban sample of preschool children.

Externalizing and Internalizing Difficulties: Relations to EK and ISL. Children with emotional and behavioural difficulties have been shown to be less accurate in their identification of emotions when presented with facial expressions (Zabel, 1979). Deficits in EK have also been discussed in relation to internalizing and externalizing behaviours in childhood (Trentacosta & Fine, 2010). In general, children with poor EK skills find it challenging to read and interpret emotion cues and, as a result, may be hesitant to engage in peer-play situations (Heinz et al., 2015). This experience of routinely misinterpreting emotional cues or not recognizing them at all interferes with their social-emotional development (Izard et al., 2001). Within their longitudinal study, Fine and colleagues (2003) found that "children's first grade EK predicted their fifth grade self-reports of internalizing behaviours after controlling for caregiver-reported per capita income, expressive vocabulary, and teacher reports of both internalizing and externalizing behaviours in the first grade" (p. 339). More recently, Gobel, Henning, Moller and Aschersleben (2016) reported that poorer emotion understanding was associated with greater social withdrawal in a sample of children ages 7 to 10.

Provided that the ability to use ISL in discussing emotions, desires, and beliefs is important for interpreting others' actions (Dunn et al., 1991), children with higher levels of internalizing and externalizing difficulties may demonstrate different patterns of ISL use compared to their peers within the context of an emotion-focused task. Further research, however, is needed to examine whether or not this relationship exists within a preschool aged population. Currently, there is limited literature on the relationship between children's use of ISL within familial, emotion-focused conversations and their externalizing or internalizing difficulties.

The Present Study

Within this study, I examined the way in which mothers and fathers facilitate an emotion-focused discussion with their preschool aged children, most specifically their use of ISL. Provided that the majority of studies investigating parental influence on emotion socialization focus exclusively on mothers (Van der Pol et al., 2015), I assessed fathers' unique contributions as well. Parental use of ISL was also examined in relation to children's social-emotional development.

Additionally, I examined how preschool aged children employ ISL within the context of a dyadic, emotion-focused task. Relatively little is known about how young children's use of ISL within familial conversations relates to different facets of their social-emotional functioning. Past research has examined how parental use of ISL within an emotion-focused task relates to children's social skills (Roger et al., 2012), however, few studies have examined children's ISL within parent-child conversations in reference to other aspects of their social-emotional functioning. In fact, no studies to date have analyzed how mothers' and fathers' use of ISL within emotion-focused conversations predicts their child's internalizing and externalizing difficulties. This study, therefore, explored this potential relationship. Finally, due to the inconsistent findings in the literature, parental and gender differences in ISL were examined.

Research Questions and Hypotheses

1. Are there parental differences in ISL use (type and function) within the context of an emotion-focused task? Given the mixed findings in the literature, no specific hypothesis was proposed. Some studies report no differences between mothers and fathers in terms of the type of language used within emotion-focused discussions, while others have documented notable differences

(Adams, Kuebli, Boyle, & Fivush 1995; LaBounty et al., 2008; Roger at al., 2012; Van der Pol et al., 2015).

2. Are there gender differences in ISL use (type and function) between children within the context of an emotion-focused task? Similarly, provided that varied findings have been reported, no specific hypothesis was proposed. While some researchers have documented gender differences in children's use of ISL and talk about feeling states, others did not report any significant differences (Adams et al., 1995; Dunn, Bretherton, & Munn, 1987; Dunn, Brown, and Beardsall, 1991; Roger et al., 2012).

3. Is there a predictive relationship between mothers and fathers use of ISL within an emotion-focused task and their perceived levels of their children's internalizing and externalizing difficulties? Given that this relationship has yet to be examined, this question was exploratory in nature. The relationship between EK and externalizing and internalizing difficulties, however, has been established (Trentacosta & Fine, 2010). Thus, in building on past literature, it was hypothesized that parents will differentially facilitate the emotion-focused task based on their perception of their child's internalizing and externalizing difficulties.

Roger and colleagues (2012) reported that mothers used more ISL during comments within an emotion-focused task when they perceived their child's social skills to be lower. Past research has provided evidence for the positive relationship between EK and social competence (Trentacosta & Fine, 2010). Children who are capable of comprehending others' emotional cues are more likely to respond appropriately, enhancing their peer relationships and furthering the development of strong social skills (Trentacosta & Fine, 2010). Therefore, parents with children with lower social skills might have differentially employed ISL in order to enhance their child's understanding in the emotions task.

Given the negative relationship between EK and internalizing and externalizing behaviours (Trentacosta & Fine, 2010), I hypothesized that parents who perceive their child as experiencing higher levels of internalizing or externalizing difficulties would engage in the task differently. These parents, for example, may be more inclined to rely on ISL comments as a means of telling their child what emotion is being displayed on the card, without any further elaboration or explanation. Conversely, parents who perceive their children as experiencing difficulty understanding and interpreting emotional expressions may pose more questions or requests (eg. "show me your happy face) to encourage and facilitate discussion.

4. Is there a predictive relationship between children's use of ISL and parent ratings (combined and independent) of their internalizing and externalizing problems within an emotion-focused task? Given that children's externalizing and internalizing problems have been related to poorer EK (Trentacosta & Fine, 2010), I hypothesized that children whose parents rated as experiencing higher levels of internalizing or externalizing problems will use ISL differently than their peers. This question, however, was exploratory in nature as this potential relationship has not been explored.

Method

Participants

Forty, two-parent families and their preschool aged children (20 boys, 20 girls, 3.5 – 5 years old, mean age = 4.4 years) participated. These families were selected based on their completion of Phase 1 a longitudinal study on parenting in early childhood. Twenty-five percent of fathers were between the ages of 26-35, 62.5% were 36-45, and 10% were 46-55. The age of one of the fathers who participated was not reported. For mothers, 30% were between 26-35, 65% between 36-45 and 5% were 46-55 years old. Families were originally recruited by

contacting preschools and daycares in Edmonton and surrounding areas or through word of mouth. Centers were asked to distribute information to interested two-parent families who had preschool aged children. Based on their completion of Phase 1 of the longitudinal study, families were asked to participate in an additional portion of the study which involved a home visit.

Measures

Three variables were examined in this study: (1) internal state language (type and function) employed by parents and children, (2) children's internalizing symptoms, and (3) children's externalizing symptoms as reported by their parents. Both the type as well as the function of internal state language utilized by mothers, fathers and their children was assessed by using a coding scheme developed by Roger (2009) with slight adaptations (Van der Pol et al. 2015). Children's internalizing and externalizing symptoms were measured by the *Behaviour Assessment System for Children*, *Second Edition* (Reynolds & Kamphaus, 2004), which was completed in Phase 1 of the larger study.

Demographics Questionnaire. Families previously completed a demographics questionnaire as part of the ongoing study. Mothers and fathers were asked to report on the following information: racial/ethnic background, languages primarily spoken in the home, how often they speak a language other than English (never, once in a while, sometimes, more than half the time, all the time), citizenship (Canadian citizen, immigrant, refugee), years lived in Canada (less than 2 years, 2-5 years, or more than 5 years), relationship status (single, divorced, married, separated, common-law, widowed), age range (13-17, 18-25, 36-35, 46-55, 56+), highest grade or year of school completed (8 years of schooling or less, junior high graduate, partial high school training, high school diploma/GED, certificate in Trade/Technology, partial college/university or graduate/professional education), employment (full time, part time, don't

work, stay at home, student, student and work, retired, other), approximate combined annual income (less than $19,999, $20,000-$39,999, $40,000-$69,999, $60,000-$79,999, $80,000+), as well as whether or not their child is currently attending a program (daycare or day home, preschool, early head start, other).

According to the demographic information collected, 56.3% of participants identified as Canadian. Additionally, 10% identified as South Asian, 1.3% South East Asian, 15% Chinese, 3.8% Korean, 10% Filipino, 2.5% Black/African, 1.3% Aboriginal, 23.8% White/Caucasian/Western European, and 12.5% Eastern European. The ethnicity of one of the parents who participated was not reported.

When asked to report which languages they speak, 82.5% parents reported that they speak English. In addition, 6.3% reported that they speak French, 12.5% Mandarin, 2.5% Cantonese, 5% Chinese, 1.3% Japanese, 11.3% Filipino, 1.3% Hindi, 1.3% Spanish, 2.5% Italian, 2.5% Polish, 2.5% Nepali, 2.5% Greek, 2.5% Yoruba, 2.5% Telugu, 2.5% Croatian, 1.3% Cebuano, 2.5% Bengali, and 1.3% Korean. This question was not answered by one of the parents. When asked how often their child speaks a language other than English at home 38.8% of parents reported "never", 20% "one in a while", 17.5% "more than half the time", and 13.8% answered "all of the time". This information was missing for one of the parents.

In terms of education, 42.5% of mothers held a college/ university degree, 40% had graduate/professional education, 5% a high school diploma/GED, 2.5% partial high school training, and 2.5% eight years of schooling or less. The educational background for one of the mothers who participated was not reported. For fathers, 37.5% had a college/university degree, 32.5% graduate/professional education, 2.5% high school diploma/GED, 7.5% partial high

school training, 12.5% a certificate in trade/technology, and 2.5% junior high. The educational background for one of the fathers who participated was not reported.

When asked to report their workforce participation, 45.5% of mothers reported that they work full time, 20% part time, 17.5% stay at home, 7.5% are students, 5% work from home, 25% are on maternity leave, and 2.5% on medical leave. For fathers, 85% work full time, 2.5% work part time, 5% stay at home, 2.5% are students and 2.5% are on long-term disability. The occupational information for one of the fathers was not reported. In terms of their household's approximate annual income, the majority of mothers (72.5%) of reported an annual income of over $80,000.

Emotions Task Coding. Internal state language (ISL) employed by parents and children was coded with a previously developed coding scheme (Roger, 2009). Firstly, ISL was broken down according to its type: emotion state, physiological state, or cognitive state (goals, beliefs, and preferences) (Roger, 2009). Secondly, ISL was coded for its function (Denham et al., 1992; Roger, 2009; Van der Pol et al., 2015): (1) commenting (noting an internal state without any reasoning or explanation; for example, "she's angry" or "he looks upset about something"), (2) questioning (posing a direct question; for example, "what do you think the child in the picture is feeling?" or "why do you think the girl is feeling worried?"), (3) clarification (explaining or clarifying the causes and/or consequences of feelings or questioning whether the individual believes the label; for example, "she's sad because she misses her mom" or "she looks frustrated?"), (4) requesting (asking to perform a particular action, for example, "show me your surprised face"), (5) child directed talk ("you felt bored this morning too"), or (6) other directed talk ("your sister is unhappy sometimes").

Reliability. All parent-child transcripts were first transcribed in Microsoft Word and then coded in Microsoft Excel based on the above scheme. To establish inter-rater reliability, a graduate student and an undergraduate volunteer independently coded 15% of the videos (12/80 transcripts). Cohen's *Kappas* were 0.96 (type of ISL) and 0.94 (function of ISL), respectively, indicating high agreement between the coders. After reliability was established, the graduate student coded the remaining transcripts.

The Behaviour Assessment System for Children, Second Edition. The *Behaviour Assessment System for Children, Second Edition* (BASC-II; Reynolds & Kamphaus, 2004) was completed by both parents as part of the ongoing study. In the Parent Rating Scale (PRS) on the BASC-II, parents are asked to indicate whether or not their child never (1), sometimes (2), often (3) or almost always (4) engages in a particular action or behaves in a certain way. While the BASC-II contains 16 primary scales, only the internalizing and externalizing composite scales were relied upon for the purpose of this study.

As reported in the BASC-II manual by Reynolds and Kamphaus (2004), reliabilities are high for composite scores and individual scales in the PRS. With a general normed sample of preschool aged males and females (4-5 years old), coefficient alpha is 0.90 for externalizing problems and 0.87 for internalizing problems. These scores indicate high internal consistency for this measure. Additionally, adjusted test-retest reliability scores are reported as 0.81 for externalizing problems and 0.86 for internalizing problems. Inter-rater reliability was also calculated by asking two different raters, parents or caregivers, to complete the PRS at the same point in time. Adjusted correlations were reported as 0.66 for externalizing problems and 0.69 for internalizing problems. The relatively lower correlations for inter-rater reliability can be

explained by the fact that different raters may observe children in various environments, and, therefore, be exposed to different behaviors (Reynolds & Kamphaus, 2004).

Furthermore, the BASC-II manual provides strong empirical support for the validity of the BASC-II; scale intercorrelations and factor structure, covariance structure analysis, and principal-axis factor analysis are all reported (Reynolds & Kamphaus, 2004). Additionally, scores on the PRS were compared to the *Achenbach System of Empirically Based Assessment* (ASEBA) Child Behavior Checklist for Ages 1-5 (ASEBA; Achenbach & Rescorla, 2000) as well as 6-18 (ASEBA; Achenbach & Rescorla, 2001). Correlations with the BASC-II externalizing problems fell within the range of 0.74 and 0.83, and 0.65 and 0.75 for the internalizing problems. These correlations indicate that the BASC-II (Reynolds & Kamphaus, 2004) and ASEBA (Achenbach & Rescorla, 2000; Achenbach & Rescorla, 2001) are capturing the same behavioral dimensions to a moderate to strong degree (Reynolds & Kamphaus, 2004).

Procedure

Provided that participants were taking part in an ongoing study at the University of Alberta with ethics, this study was subsumed by the broader ethics application. After completion of the Phase 1 of the larger study, a graduate research assistant trained in the Social and Emotional Development (SED) lab at the University of Alberta contacted families. Mothers and fathers were asked if they were interested in participating in a home visit and given the necessary information to provide informed consent. Each home visit was filmed and lasted approximately forty five to sixty minutes. The visits took place on two separate occasions; once with children and their mothers, and an additional time with children and their fathers. As part of the larger parenting study, mothers and fathers engaged in three tasks with their child during the home visit: free play with Lego, puzzle building, as well as an Emotions Task. The order of these tasks

was alternated so that children were not always beginning with the same activity. Since the tasks were same for both parents, research assistants attempted to schedule visits so that mothers or fathers were not always completing their visit first. Mothers and fathers were also provided with different puzzles and Lego sets that were comparable and developmentally appropriate. A total of 100 mothers and 100 fathers participated in home these visits, however, only subset of 40 families were included in this study.

Only the Emotions Task was relied upon for purpose of this study. During this task, mothers and fathers were given the same 12 cards with pictures of children's facial expressions and were asked to talk about the cards with their child. These emotion cards were black and white and taken from a non-verbal language task. Instructions were read as follows: "This is the Emotions Task. For this task I would like the two of you to talk about the pictures. Note that each picture has a number on it. Please call out the numbers as you talk about each picture and let me know when you are done talking about all of the pictures." Due to the nature of the instructions, parents took varying amounts of time to complete the Emotions Task and no time limit was enforced. Following the completion of their home visit, each parent was emailed a $30.00 gift certificate to a bookstore as a token of appreciation for their time. Mothers and fathers were also emailed a copy of the video, as per their request.

Rationale For Analyses

Firstly, descriptive statistics for the three main variables (1) internal state language (type and function), (2) children's internalizing symptoms as well as (3) externalizing symptoms as reported by both parents were run in SPSS, Version 24. Means, standard deviations, and ranges for all variables were calculated and reported below.

Secondly, two-way factorial mixed-ANOVAs were run to examine whether or not differences emerged between parents' use of internal state language. This mixed design contains one between subjects factor (child gender: male or female) and one within-subjects factor (parent: mother or father). Child gender was used as the between subjects factor, as different participants were in each level of the between subjects factor (20 males and 20 females). Mothers' and fathers' were entered as the repeated measure factor as each child completed the same emotions task with each parent. The advantage of this mixed design is that it allows for the generalizability of the repeated measures independent variable (parent) to be tested over the levels of the between subjects independent variable (child gender). Additionally, the smaller error term associated with the repeated-measures segment of the design increases its overall power.

Next, several one-way ANOVAs were conducted to examine whether or not differences emerged between males and females use of ISL. A new variable was created by summing and averaging children's use of ISL with each parent as they completed the task twice. By entering "gender" as the "factor" in SPSS Version 24, differences between males and females were analyzed.

Afterwards, a series of simultaneous multiple linear regressions were run in SPSS. The purpose of these regressions was to determine whether or not (1) mothers and fathers use of ISL predicted their perceived levels of their children's internalizing and externalizing difficulties and (2) if there is a predictive relationship between children's use of ISL and their parents ratings of their internalizing and externalizing difficulties. For each of the regression analyses conducted, ISL use (type or function) was entered as the predictor variable and parental internalizing or

externalizing scores from the BASC-II as the dependent variable. All analyses were carried out with a significance level of $\alpha = .05$.

Results

Descriptive Statistics

Tables 3 and 4 display the means, standard deviations, and ranges for the type of ISL used by parents (mothers and fathers) and children (males and females). Type of ISL was divided into three categories (1) emotion states, (2) cognitive states (goals, beliefs, and preference terms) as well as (3) physiological states.

Table 3. Frequency Means, Standard Deviations and Score Ranges for Type of ISL (Mothers and Fathers)

	Mean	SD	Range
Mothers			
Emotion States	30.03	14.81	9 - 75
Cognitive States	24.03	14.68	1 - 61
Physiological States	2.08	2.31	0 - 8
Fathers			
Emotion States	26.40	16.61	3 - 89
Cognitive States	23.78	18.95	0 - 79
Physiological States	2.90	3.73	0 - 16

Table 4. Frequency Means, Standard Deviations and Score Ranges for Children's ISL (Females and Males)

	Mean	SD	Range
Females			
Emotion States	11.85	5.89	3 - 33
Cognitive States	8.13	6.24	0 - 30
Physiological States	1.72	1.87	0 - 8
Males			
Emotion States	12.83	8.17	0 - 38
Cognitive States	9.53	13.85	0 - 82
Physiological States	1.65	2.05	0 - 9

Tables 5 and 6 present the means, standard deviations, and ranges for the function of ISL used by parents and children. ISL function was divided into seven categories: commenting

(Fc), questioning (Fq), requesting (Fr), clarification (Fj), other-directed (Fod), child directed

(Fcd), or other (Fo).

Table 5. Frequency Means, Standard Deviations and Score Ranges for Parents Function of ISL

	Mean	SD	Range
Mothers			
Commenting (Fc)	11.45	7.47	1 - 33
Questioning (Fq)	24.95	14.10	3 - 57
Requesting (Fr)	0.75	1.24	0 - 5
Clarification (Fj)	5.93	4.57	0 - 22
Other directed (Fod)	0.13	0.40	0 - 2
Child directed (Fcd)	1.50	2.85	0 - 17
Other (Fo)	2.35	2.40	0 - 9
Fathers			
Commenting (Fc)	11.83	6.91	3 - 38
Questioning (Fq)	21.55	15.40	2 - 64
Requesting (Fr)	0.98	2.09	0 - 10
Clarification (Fj)	6.05	4.51	0 - 16
Other directed (Fod)	0.18	0.45	0 - 2
Child directed (Fcd)	1.13	1.96	0 - 10
Other (Fo)	2.18	2.86	0 - 15

Table 6. Frequency Means, Standard Deviations and Score Ranges for Children's Function of ISL

	Mean	SD	Range
Females			
Commenting (Fc)	16.15	6.91	6 - 34
Questioning (Fq)	0.90	1.85	0 - 8
Requesting (Fr)	0.13	0.40	0 - 2
Clarification (Fj)	1.23	1.54	0 - 6
Other directed (Fod)	0.13	0.40	0 - 2
Child directed (Fcd)	0.15	0.53	0 - 2
Other (Fo)	1.25	1.72	0 - 8
Males			
Commenting (Fc)	17.38	10.01	2 - 55
Questioning (Fq)	1.48	2.60	0 - 10
Requesting (Fr)	0.15	0.58	0 - 3
Clarification (Fj)	1.25	1.77	0 - 7
Other directed (Fod)	0.03	0.16	0 -1
Child directed (Fcd)	0.10	0.38	0 - 2
Other (Fo)	1.03	1.66	0 - 8

Table 7 displays the means, standard deviations, and ranges for parents' ratings of

children's internalizing and externalizing difficulties. T- scores between 41- 59 represent

behaviours that are in the "Average" range, those that fall within 60 – 69 indicate "At-Risk"

behaviours, and scores above 70 are in the "Clinically Significant" range. Based on the table

below, the average scores for internalizing and externalizing difficulties reported by parents fall

within the "Average" range.

Table 7. Means, Standard Deviations and Score Ranges for Children's Internalizing and Externalizing Symptoms (BASC-II)

	Mean	SD	Range
Mothers			
Internalizing Symptoms	51.10	10.47	44
Externalizing Symptoms	49.33	6.76	29
Fathers			
Internalizing Symptoms	50.63	10.61	53
Externalizing Symptoms	50.43	8.91	34

Correlation Tables

Table 8. Pearson Correlations for Internalizing and Externalizing Symptoms (BASC-II), Children's Use of ISL (Type) and Parental Use of ISL (Type)

	P_Py	P_Emo	P_Cog	Int	Ext	C_Py	C_Emo	C_Cog
Parent Physiological States (P_Py)	1	.56**	.44**	-.06	-.01	.74**	.32**	.19
Parent Emotion States (P_Emo)	.56**	1	.60**	-.09	-.15	.46**	.50**	.20
Parent Cognitive States (P_Cog)	.44**	.60**	1	-.22	-.08	.34**	.22	.51**
Internalizing Score (Int)	-.06	-.09	-.22	1	.65**	-.22*	-.25*	-.29**
Externalizing Score (Ext)	-.01	-.15	-.08	.65**	1	-.06	-.35**	-.14

Child Physiological States (C_Py)	.74**	.46**	.34**	-.22*	-.06	1	.43**	.15
Child Emotion States (C_Emo)	.32**	.50**	.22	-.25*	-.35**	.43**	1	.06
Child Cognitive States (C_Cog)	.19	.20	.51**	-.29**	-.14	.15	.06	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 9. Pearson Correlations for Internalizing and Externalizing Symptoms (BASC-II) and Parental Use of ISL (Function)

	Int	Ext	Pc	Po	Pq	Pr	Pj	Pod	Pcd
Internalizing Score (Int)	1	.65**	-.08	-.002	-.11	.09	-.19	.1	.03
Externalizing Score (Ext)	.65**	1	-.13	-.01	-.044	.12	-.16	.26*	.006
Comments (Pc)	-.08	-.13	1	.28*	.21	.18	.21	-.06	-.02
Other (Po)	-.002	-.01	.28*	1	.33**	.036	.21	.10	.29**
Questioning (Pq)	-.11	-.04	.21	.33**	1	.13	.50**	.14	.15
Requesting (Pr)	.09	.12	.18	.04	.13	1	.02	-.04	.04
Clarification (Pj)	-.19	-.16	.21	.21	.50**	.02	1	.11	.21
Other Directed Comments (Pod)	.1	.26*	-.06	.10	.14	-.04	.11	1	.13

| Child Directed Comments (Pcd) | .03 | .006 | -.02 | .29** | .15 | .04 | .21 | .13 | 1 |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 10. Pearson Correlations for Internalizing and Externalizing Symptoms (BASC-II) and Children's Use of ISL (Function)

	Int	Ext	Cc	Co	Cq	Cr	Cj	Cod	Ccd
Internalizing Score (Int)	1	.65**	-.35**	-.15	-.23*	-.09	-.23*	-.08	-.16
Externalizing Score (Ext)	.65**	1	-.18	-.22*	-.35**	.05	-.19	.07	-.06
Comments (Cc)	-.35**	-.18	1	.44**	.18	.28*	.29**	-.04	.29**
Other (Co)	-.15	-.22*	.44**	1	.33**	.04	.08	-.04	.29**
Questioning (Cq)	-.23*	-.35**	.18	.33**	1	-.08	.25*	-.002	.17
Requesting (Cr)	-.09	.05	.28*	.04	-.08	1	.16	.10	-.08
Clarification (Cj)	-.23*	-.19	.29**	.08	.25*	.16	1	.04	-.09
Other Directed (Cod)	-.08	.07	-.04	-.04	-.002	.10	.04	1	-.07
Child Directed (Ccd)	-.16	-.07	.29**	.29**	.17	-.08	-.09	-.07	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Parental Comparisons in Internal State Language (Question 1).

In answering research questions 1, several two-way factorial mixed ANOVAs were

conducted. Parent (mother or father) served as the repeated measure factor and child gender

(male or female) was entered as the between-subjects factor. Prior to running these analyses, the assumptions of a mixed design were examined. The first assumption involves normality of the sampling distribution of the means. Based on the sample size (N=40 children) and within subjects degrees of freedom (df = 38) it is assumed that the sample means are normally distributed. The second assumption, homogeneity of variance, was met based on the equal sample sizes (20 females and 20 males) in each group. The independence of error assumption, which only applied to the between-subjects factor, was satisfied provided that subjects randomly sampled and did not communicate or interact with one another. Typically, the sphericity assumption is applied to mixed designs, however, provided that there were only two levels of the repeated measure factors (mothers and fathers), this assumption was not necessary.

Type of ISL. In order to determine whether or not differences emerged between the type of ISL used by mothers and fathers, two-way factorial mixed ANOVAs were conducted. The first mixed ANOVA compared parental use of emotion state terms (positive terms, negative terms, and general terms) and found no significant difference between mothers and fathers, $F(1,38) = 1.631$, *ns*. Next, parental use of cognitive state terms (goal terms, belief/knowledge terms, and preference terms) were compared and no significant differences emerged $F(1,38) = 0.007$, *ns*. Similarly, no significant differences emerged between mothers' and fathers' use of physiological state terms, $F(1,38) = 1.654$, *ns*.

Function of ISL. Several two-way mixed ANOVAs were also conducted to examine differences between the function of ISL used by mothers and fathers. No significant differences emerged between mothers' and fathers' use of comments $F(1,38) = 0.118$, p = ns, questions $F(1,38) = 1.706$, *ns*, requests $F(1,38) = 0.337$, *ns*, clarification $F(1,38) = 0.025$, *ns*, other directed

comments $F(1,38) = 0.400$, *ns*, child directed comments $F(1,38) = 0.537$, *ns*, and "other"

comments $F(1,38) = 0.116$, *ns*.

Child comparisons in internal state language (Question 2)

     Type of ISL. Three, one-way ANOVAs were conducted to examine whether or not

gender differences emerged. Results indicated no significant differences in males' and females'

use of emotion state terms $F(1,38) = 0.227$, *ns*, cognitive state terms $F(1,38) = 0.273$, *ns*, or

physiological state terms $F(1,38) = 0.019$, *ns*.

     Function of ISL. Next, several one-way ANOVAs were run to test gender differences in

terms of the function of ISL. Results demonstrated no significant differences in males' and

females' use of comments $F(1,38) = 0.331$, *ns*, questions $F(1,38) = 0.798$, *ns*, requests $F(1,38) =$

0.03, *ns*, clarifications $F(1,38) = 0.003$, *ns* other directed comments $F(1,38) = 2.269$, *ns*, child

directed comments $F(1,38) = 0.162$, *ns*, or "other" comments $F(1,38) = 0.253$, *ns*.

Parental Use of ISL and children's internalizing and externalizing difficulties (Question 3)

     Type of ISL and internalizing and externalizing difficulties. In order to investigate

whether or not a relationship existed between parents' use of ISL and their ratings of their

children's internalizing and externalizing difficulties, a series of simultaneous multiple linear

regressions were conducted. The assumptions pertaining to regression analyses: linearity, multi-

colinearity, homoscedasticity, and normality were evaluated and satisfied prior to conducting the

analyses.

     Results are presented separately for mothers and fathers as they each provided an

independent rating of their child's internalizing and externalizing difficulties. At the $\alpha = .05$ level,

neither of the models displayed in Table 11 (mothers $= F(3,36) = 2.279$, *ns*; fathers $= F(3,36)$

$=1.433$, *ns*) or Table 12 (mothers $= F(3,36) = 0.504$, *ns*; fathers $= F(3,36) =1.256$, *ns*) were

statistically significant. These findings demonstrate no significant relationship between the type

of ISL used by mothers and fathers and their perception of their child's internalizing or

externalizing difficulties.

Table 11. *Multiple Regression Analysis Summary for Type of ISL and Internalizing Composite Scale from the BASC-II*

Variable	*B*	*SE B*	β
Mothers			
Emotion State Terms	0.190	0.133	0.269
Cognitive State Terms	-0.180	0.134	-0.252
Physiological State Terms	-1.428	0.815	-0.316
Fathers			
Emotion State Terms	-0.192	0.160	-0.301
Cognitive State Terms	-0.079	0.117	-0.142
Physiological State Terms	0.991	0.596	0.349

*$p < 0.05$

Table 12. *Multiple Regression Analysis Summary for Type of ISL and Externalizing Composite Scale from the BASC-II*

Variable	*B*	*SE B*	β
Mothers			
Emotion State Terms	0.015	0.092	0.032
Cognitive State Terms	-0.100	0.092	-0.217
Physiological State Terms	0.006	0.563	0.002
Fathers			
Emotion State Terms	-0.262	0.135	-0.488
Cognitive State Terms	0.101	0.099	0.214
Physiological State Terms	0.577	0.503	0.242

*$p < 0.05$

Function of ISL and internalizing and externalizing difficulties. In assessing whether or not a

relationship existed between ISL function and parental ratings children's internalizing and

externalizing difficulties, a series of multiple regressions were conducted. Results are presented

separately for mothers' and fathers' as they each provided an independent rating of their child's

internalizing and externalizing difficulties. At the $\alpha = .05$ level, neither of the models displayed

in Table 13 (mothers = $F(7,32)$ = 0.665, *ns*; fathers = $F(7,32)$ =1.115, *ns*) or Table 14 (mothers =

$F(7,32)$ =0.202, *ns*; fathers = $F(7,32)$ =1.625, *ns*) were statistically significant. These findings

demonstrate no significant relationship between ISL function and parent ratings of their child's

internalizing or externalizing difficulties.

Table 13. *Regression Analysis Summary for Function of ISL and Internalizing Difficulties*

Variable	*B*	*SE B*	β
Mothers			
Commenting (Fc)	0.180	0.264	0.128
Questioning (Fq)	0.083	0.152	0.112
Requesting (Fr)	-0.265	1.564	-0.031
Clarification (Fj)	-0.384	0.463	-0.167
Other directed (Fod)	2.018	4.499	0.078
Child directed (Fcd)	0.814	0.679	0.221
Other (Fo)	-1.680	0.906	-0.385
Fathers			
Commenting (Fc)	-0.122	0.281	-0.079
Questioning (Fq)	-0.118	0.141	-0.171
Requesting (Fr)	0.856	0.829	0.169
Clarification (Fj)	-0.536	0.474	-0.228
Other directed (Fod)	4.521	4.090	0.190
Child directed (Fcd)	-0.182	0.951	-0.034
Other (Fo)	1.009	0.636	0.297

*$p < 0.05$

Table 14. *Regression Analysis Summary for Function of ISL and Externalizing Difficulties*

Variable	*B*	*SE B*	β
Mothers			
Commenting (Fc)	-0.053	0.178	-0.058
Questioning (Fq)	-0.012	0.103	-0.025
Requesting (Fr)	0.018	1.059	0.003
Clarification (Fj)	-0.121	0.313	-0.082
Other directed (Fod)	2.460	3.044	0.147
Child directed (Fcd)	0.001	0.460	0.001
Other (Fo)	-0.155	0.613	-0.055
Fathers			
Commenting (Fc)	-0.123	0.226	-0.095
Questioning (Fq)	0.057	0.113	0.098
Requesting (Fr)	0.921	0.666	0.217
Clarification (Fj)	-0.730	0.381	-0.370
Other directed (Fod)	7.860	3.289	0.394

Child directed (Fcd)	0.045	0.7765	0.010
Other (Fo)	0.130	0.512	0.042

$^*p < 0.05$

Children's ISL and internalizing and externalizing difficulties (Question 4)

Type of ISL and internalizing and externalizing difficulties. Similarly, a series of multiple regressions were conducted in order to investigate whether or not a predictive relationship existed between the type of ISL used by children and parental ratings of their internalizing and externalizing difficulties. Two sets of regressions were conducted in answering this research question. The first set of models used both mothers' and fathers' ratings of their child's internalizing/externalizing difficulties and included children's ISL use with both parents, as the emotions task was completed twice. Subsequent models employed individual mother and father BASC-II scores alongside children's ISL use with each parent. For example, when mothers' internalizing or externalizing scores were entered as the dependent variable, child gender and ISL use (type of function) with their mothers were used as predictors.

Results utilizing the combined parent BASC-II scores and child ISL are presented first (Table 15, Table 16), followed by those obtained from the individual mother and father externalizing/internalizing and scores and child ISL (Table 17, 18, 19, 20). Conducting both sets of analyses address the original research question and allow for comparisons to be drawn between the models in terms of their significance and predictive ability.

Table 15. Regression Analysis Summary for Type of ISL and Internalizing Difficulties

Variable	*B*	*SE B*	β
Females			
Emotion State Terms	-0.146	0.253	-0.106
Cognitive State Terms	-0.259	0.228	-0.199
Physiological State Terms	0.547	0.841	0.126
Males			

	B	SE B	β
Emotion State Terms	-0.362	0.239	-0.237
Cognitive State Terms	-0.282	0.129	-0.312*
Physiological State Terms	-1.469	0.957	-0.241

*$p < 0.05$

Results from Table 15 demonstrated that for males, the combination of variables significantly predicted internalizing difficulties, $F(3,36) = 4.47$, $p = .009$. The adjusted R squared value was 0.211, indicating that 21% of the variance in male internalizing difficulties can be explained by the model. Males' use of cognitive state terms emerged as the most significant predictor in the model; males who used more cognitive state terms during the Emotions Task had fewer parent reported internalizing difficulties ($\beta = -0.31$, $p = 0.035$). The same model, however, did not display statistical significance when tested with the female group $F(3,36) = 0.560$, ns.

Findings from Table 16 reveal a different pattern of results when externalizing difficulties were entered as the dependent variable. For males, the combination of variables significantly predicted externalizing difficulties $F(3,36) = 3.36$, $p = 0.029$. The adjusted R squared value was 0.15, indicating that 15% of the variance in male's externalizing difficulties can be explained by the model. Males who used more emotion state terms were rated by their parents as having fewer externalizing difficulties ($\beta = -0.451$, $p = 0.008$). The same model, however, did not yield statistically significance results when tested with the female group $F(3,36) = 1.349$, ns.

Table 16. Regression Analysis Summary for Type of ISL and Externalizing Difficulties

Variable	B	SE B	β
Females			
Emotion State Terms	-0.488	0.248	-0.351
Cognitive State Terms	0.012	0.223	0.009
Physiological State Terms	0.414	0.823	0.094
Males			
Emotion State Terms	-0.423	0.152	-0.451*
Cognitive State Terms	-0.125	0.082	-0.226
Physiological State Terms	0.526	0.607	0.141

Next, a series of multiple regressions were conducted with mothers (Table 17, Table 19) and fathers (Table 18, Table 20) independent externalizing and internalizing scores as the dependent variables. The type of ISL employed by children with each parent as well as gender were entered as predictor variables. The purpose of these subsequent analyses was to incorporate the unique contribution of each parent and determine whether or not differences emerged in comparison to the regressions conducted above. Furthermore, the below models consider children's use of ISL in conjunction with the parent whose BASC-II score is being utilized.

Results from Table 17, which utilized mothers' BASC-II externalizing scores, demonstrate that the combination of variables significantly predicted children's externalizing difficulties, $F(4,35) = 3.069$, $p = 0.029$. The adjusted R squared value was 0.175, indicating that 17.5% of the variance in children's externalizing difficulties can be explained by the model. Children's use of emotion state terms ($\beta = - 0.423$, $p = 0.011$) and cognitive state terms ($\beta = -0.358$, $p = 0.022$) emerged as significant predictors. Children who utilized more emotion state and cognitive state terms during the Emotions Task with their mothers' had fewer externalizing difficulties, as reported by their mothers.

Table 17. Regression Analysis Summary for Type of ISL and Externalizing Difficulties

Variable	B	$SE\ B$	β
Mothers			
Child Gender	2.925	2.011	0.219
Physiological State Terms	0.343	0.552	0.097
Emotion State Terms	-0.477	0.178	-0.423*
Cognitive State Terms	-0.178	0.074	-0.358*

*$p < 0.05$

The same model (Table 18), however, did not display statistical significance when fathers' BASC-II externalizing scores were entered as the dependent variable, $F(4,35) = 1.875$, ns.

Table 18. Regression Analysis Summary for Type of ISL and Externalizing Difficulties

Variable	B	SE B	β
Fathers			
Child Gender	0.532	2.715	0.030
Physiological State Terms	0.662	0.799	0.148
Emotion State Terms	-0.526	0.199	-0.476
Cognitive State Terms	0.214	0.213	0.160

$^*p < 0.05$

Similarly, Table 19 summarizes the results attained when mothers' BASC-II internalizing scores were entered as the dependent variable. Findings demonstrate that the combination of variables significantly predicted children's internalizing difficulties, $F(4,35) = 4.520, p = 0.005$. The adjusted R squared value was 0.265, indicating that 26.5% of the variance in children's internalizing difficulties can be explained by the model. Children who used more cognitive state terms during conversations with their mothers were reported as displaying lower levels of internalizing difficulties ($\beta = -0.427, p = 0.005$).

Table 19. Regression Analysis Summary for Type of ISL and Internalizing Difficulties

Variable	B	SE B	β
Mother			
Child Gender	3.925	2.937	0.190
Physiological State Terms	-1.000	0.807	-0.182
Emotion State Terms	-0.522	0.260	-0.299
Cognitive State Terms	-0.328	0.108	-0.427*

$^*p < 0.05$

This same model (Table 20), however, did not display statistical significance when father's BASC-II internalizing scores were utilized, $F(4,35) = 0.477$, *ns*.

Table 20. Regression Analysis Summary for Type of ISL and Internalizing Difficulties

Variable	B	SE B	β
Father			
Child Gender	0.953	3.471	0.045
Physiological State Terms	-0.023	1.021	-0.004
Emotion State Terms	-0.275	0.255	-0.209
Cognitive State Terms	-0.051	0.272	-0.032

$^*p < 0.05$

Function of ISL and internalizing and externalizing difficulties. Similarly, in determining whether or not a predictive relationship existed between the function of ISL used by children and parental ratings of their internalizing and externalizing difficulties, two sets of analyses were conducted; one set of models with both mothers' and fathers' ratings of their child's internalizing/externalizing difficulties and children's ISL use with both parents, and another with parents' individual internalizing/externalizing scores and children's use of ISL with each parent. Results utilizing the combined parent/child scores are presented first section (Table 21, Table 22) followed by those with the individual mother and father BASC-II internalizing and externalizing scores and child ISL (Table 23, Table 24).

Results from Table 21 demonstrate that for males, the combination of variables significantly predicted internalizing difficulties $F(7,32) = 2.845$, $p = 0.02$. The adjusted R squared value was 0.25, indicating that 25% of the variance in males' internalizing difficulties can be explained by the model. For males who used more comments, parents reported fewer internalizing difficulties ($\beta = -0.606$, $p = 0.006$). The same model, however, did not yield statistically significance results when tested with the female group $F(7,32) = 1.367$, $p =$ ns.

Table 21. Regression Analysis Summary for Function of ISL and Internalizing Difficulties

Variable	B	SEB	β
Females			
Commenting (Fc)	0.1	0.21	0.09
Questioning (Fq)	-1.67	0.79	-0.38
Requesting (Fr)	3.92	3.24	0.20
Clarification (Fj)	-0.32	0.88	-0.06
Other directed (Fod)	0.77	3.19	0.04
Child directed (Fcd)	2.10	2.96	0.14
Other (Fo)	-0.94	0.86	-0.20

Males			
Commenting (Fc)	-0.76	0.26	-0.606*
Questioning (Fq)	-0.64	0.77	-0.13
Requesting (Fr)	0.09	3.77	0.004
Clarification (Fj)	-1.07	1.13	-0.151
Other directed (Fod)	-7.53	13.04	-0.10
Child directed (Fcd)	-1.52	5.12	-0.05
Other (Fo)	2.44	1.39	0.32

*$p < 0.05$

When the relationship between parent reported externalizing difficulties and ISL function was examined (Table 22), statistically significant results were not found with the female $F(7,32) = 0.902$, *ns* or male group, $F(7,32) = 1.707$, *ns*.

Table 22. Regression Analysis Summary for Function of ISL and Externalizing Difficulties

Variable	B	SEB	β
Females			
Commenting (Fc)	0.05	0.22	0.04
Questioning (Fq)	-1.38	0.83	-0.31
Requesting (Fr)	2.18	3.40	0.11
Clarification (Fj)	-0.12	0.93	-0.02
Other directed (Fod)	3.16	3.35	0.16
Child directed (Fcd)	3.54	3.11	0.23
Other (Fo)	-1.08	0.91	-0.23
Males			
Commenting (Fc)	-0.21	0.17	-0.27
Questioning (Fq)	-1.03	0.51	-0.35
Requesting (Fr)	1.33	2.51	0.10
Clarification (Fj)	-0.64	0.75	-0.15
Other directed (Fod)	-0.44	8.68	-0.01
Child directed (Fcd)	-1.13	3.41	-0.06
Other (Fo)	0.40	0.93	0.09

*$p < 0.05$

Next, two multiple regressions were conducted with mothers and fathers independent externalizing (Table 23) and internalizing (Table 24) BASC-II scores, as well as children's ISL use with each parent. As in the previous section, the function of ISL employed by children as well as gender were entered as predictor variables. When independent mother and father

externalizing scores were utilized (Table 23), neither the mother, $F(8,31) = 2.052$, *ns*, nor father

model were statistically significant, $F(8,31) = 0.785$, *ns*. These findings are similar to those

which utilized combined BASC-II parent and child ISL scores.

Table 23. *Regression Analysis Summary for Function of ISL and Externalizing Difficulties, Separate Mother and Father Scores*

Variable	B	SE B	β
Father BASC-II Score			
Child Gender	0.317	3.153	0.018
Commenting (Fc)	-0.115	0.229	-0.106
Other (Fo)	0.320	1.211	0.059
Questioning (Fq)	-1.406	0.659	-0.382
Requesting (Fr)	1.430	3.137	0.083
Clarification (Fj)	0.018	1.188	0.003
Other directed (Fod)	-3.579	5.980	-0.107
Child directed (Fcd)	0.957	5.832	0.038
Mother BASC-II Score			
Child Gender	2.795	2.102	0.209
Commenting (Fc)	-0.199	0.159	-0.159
Other (Fo)	-0.794	0.815	-0.201
Questioning (Fq)	-0.373	0.594	-0.117
Requesting (Fr)	0.458	2.195	0.033
Clarification (Fj)	-1.066	0.615	-0.290
Other directed (Fod)	4.763	3.016	0.246
Child directed (Fcd)	-0.055	2.056	-0.005

*$p < 0.05$

Similarly, independent mother and father internalizing scores (Table 24) produced

insignificant findings for the mother $F(8,31) = 2.076$, *ns* as well as the father model $F(8,31) =$

1.298, *ns*.

Table 24. *Regression Analysis Summary for Function of ISL and Internalizing Difficulties, Separate Mother and Father Scores*

Variable	B	SE B	β
Father BASC-II Score			
Child Gender	-0.318	3.565	-0.015
Commenting (Fc)	-0.379	0.259	-0.291
Other (Fo)	2.727	1.370	0.425
Questioning (Fq)	-0.993	0.745	-0.226
Requesting (Fr)	0.897	3.547	0.044

Clarification (Fj)	-0.539	1.343	-0.073
Other directed (Fod)	-13.907	6.762	-0.350
Child directed (Fcd)	-8.447	6.594	-0.278
Mother BASC-II Score			
Child Gender	3.859	3.247	0.187
Commenting (Fc)	-0.366	0.245	-0.317
Other (Fo)	-0.618	1.258	-0.101
Questioning (Fq)	-0.591	0.917	-0.120
Requesting (Fr)	-3.050	3.390	-0.141
Clarification (Fj)	-1.270	0.950	-0.223
Other directed (Fod)	2.565	4.659	0.086
Child directed (Fcd)	-1.534	3.176	-0.080

$^*p < 0.05$

Discussion

My focus in this study was to analyze how mothers and fathers utilize ISL within the context of an emotion-focused discussion with their preschool aged children. I also examined how children's use of ISL predicted parent ratings of their internalizing and externalizing difficulties. The inclusion of both mothers and fathers provided a notable contribution to the literature, as the majority of research is predominately mother-centric. Within this section, results are discussed in reference to previous studies on the development of EK and ISL in early childhood. Furthermore, limitations and future directions are presented, as well as implications for researchers and practitioners in their work with children and families.

Parental Differences in ISL Use (Question 1)

Given the mixed findings in the literature, no specific hypothesis was proposed in terms of whether or not differences would emerge between mothers and fathers use of ISL. Results demonstrated no significant differences between the type or function of ISL employed by mothers and fathers within the emotion-focused task. Previously, LaBounty and colleagues (2008) reported that mothers' used thought and emotion words more often than fathers, as well as

greater explanatory language referring to emotion. In addition, fathers' were found to rely on more explanatory language referring to thought, and no significant differences emerged between parents' explanatory language in reference to desire (LaBounty, 2008). Overall parental differences in the type of ISL used emerged, and mothers were found to talk "significantly more about internal states than fathers" (LaBounty, 2008, p. 766). More recently, Van der Pol and colleagues (2015) reported differences between parents in terms of their tendency to elaborate on emotions, with mothers elaborating more than fathers in emotion-focused discussions. Additionally, within a sample of Spanish speaking parent-child dyads, Aznar and Tenenbaum (2015) reported that mothers employed a greater proportion of emotion terms in comparison to fathers during conversations with their children ages 4 and 6.

Roger, Rinaldi, and Howe (2012), however, found no overall parental differences between the types of ISL used within an emotions card task with their toddler/preschool aged children. In taking the gender of the child into consideration, however, parents were reported as utilizing "significantly more ISL with their sons than with their daughters" (Roger et al., 2012, p. 655). Adams, Kuebli, Boyle, and Fivush (1995) also reported no significant differences between mothers and fathers in terms of the amount of emotion words employed during conversations about past emotions. Despite this, parents utilized a greater number and range of emotion words with their female children (Adams et al., 1995). Furthermore, while "parents discussed similar emotions with daughters and with sons," (Adams et al., 1995, p. 318) results indicated that "both mothers and fathers seemed to focus more on the negative emotions of sadness and negative evaluations with daughters than with sons" (Adams et al., 1995, p. 318). Taken together, these findings suggest that child gender and emotional valence are important factors to consider when examining familial conversations about feeling states.

In discussing these findings, the diversity of coding schemes and tasks used to assess, as well as elicit emotion-focused discussions, should be taken into consideration. Provided that each study employed distinct methods of facilitating discussions and coding the resulting parent-child conversations, making meaningful comparisons between studies is difficult. Adams and colleagues (1995), for example, coded the following emotion categories: sadness, fear, anger, negative evaluation, negative state, positive evaluation, positive state, affection, and "other" within parent-child conversations about past experiences in the family's home. Conversely, Aznar and Tenenbaum (2015) utilized a play-related story telling and reminiscence task in their analysis of parental differences in emotion talk and coded the following emotion words: happy, sad, angry, love, concern, fear, like, dislike, surprise, indifference, distressed, embarrassed and excited. It is worth noting, however, that this study employed the same 12 emotion cards, task instructions, and coding scheme for the type of ISL used by Roger and colleagues (2012) and documented similar findings. Additionally, the sample size of the previously reviewed studies may have also affected their ability to detect parental differences due to limited statistical power (type II error).

Child Differences in ISL Use (Question 2)

With respect to gender differences, I found no significant differences in males' and females' use of emotion state terms, cognitive state terms, or physiological state terms. Furthermore, no significant gender differences emerged in terms of the function of ISL (comments, questions, requests, clarification, other directed comments, child directed comments, or "other" comments). Similarly, Roger and colleagues (2012) reported no significant gender differences in overall ISL use within their sample of toddler/preschool-aged children. Previous studies have also documented similar findings (Dunn et al., 1991; Jenkins et al., 2003), whereas

others report significant gender differences in children's talk about feeling states (Dunn et al., 1987). Within their longitudinal study, Adams and colleagues (1995) reported no significant gender differences in emotion language at 40 months, however, "by 70-months girls used overwhelmingly more unique emotion terms than did boys" (Adams et al., 1995, p. 319). As such, statistically significant gender differences in emotion language may not emerge until later on in childhood.

According to the social-cognitive perspective, children come to develop an understanding of gender roles by means of what is explicitly taught and modeled in their immediate environment, as well as through their own enactive experiences (Bussey & Bandura, 1999; Leaper & Bigler, 2011). Through observing the reactions of others, children become increasingly aware of what is considered socially appropriate, facilitating their conceptualization of gender and associated norms (Bussey & Bandura, 1999; Leaper & Bigler, 2011). Verbal explanations of appropriate gendered conduct emerge as children's linguistic skills develop (Bussey & Bandura, 1999) and parental emotion-focused talk has been described as "sensitive to children's gender" (Cervantes & Callanan, 1998, p. 89). Bussey and Bandura (1999) also discuss self-efficacy in relation to one's propensity to engage in gendered behaviour. For example, "when a boy receives positive feedback for playing football, he will come to value and feel competent at football" (Leaper & Bigler, 2011, p. 294) and, consequently, "he will be self-motivated to play football the future" (Leaper & Bigler, 2011, p. 294). Such self-efficacy beliefs "play a pivotal role in both the acquisition and regulation of gendered roles and styles of conduct" (Bussey & Bandura, 1999, p. 689). Consequently, if females are encouraged to engage in stereotypical, gendered behaviour the likelihood that they will continue to partake in such behaviours is presumed to increase.

In reference to emotional expression, gender differences have been discussed in relation

to differential socialization of emotions for males and females (Chaplin, Cole, & Zahn-Waxler, 2005). Females have been described as stereotypically more expressive and sensitive (Briton & Hall, 1995), and significant differences in terms of the type of emotional expression portrayed by male and female children have been reported, with females demonstrating greater positive and internalizing emotions (Chaplin & Aldao, 2013). Furthermore, a "female advantage at facial information processing" (McClure, 2000, p. 424) has been proposed. Previous observational studies conducted with preschool aged children have also documented functional differences in children's use of language within peer interactions (Cook, Fritz, McCornack, & Visperas, 1985). Cook and colleagues (1985) reported that "males made significantly greater use of statements that expressed their personal desires and statements that asserted leadership" (Cook et al., 1985, p. 913) and spoke more overall compared to females. Within a more recent review of sex[1] differences in verbal abilities, however, Wallentin (2009) reported that "early differences in language acquisition show a slight advantage for girls, but this gradually disappears" (Wallentin, 2009, p. 175) during childhood.

Based on these findings in conjunction with the social-cognitive perspective on emotion socialization, one would expect gender differences to emerge in preschool aged children's use of ISL. Failure to detect statistically significant differences in this study, however, may have been due to the study's small sample size, the nature of the Emotions Task itself, or a reflection of societal changes in gendered expression of emotions. Provided that the gender socialization literature reviewed is primarily from previous decades, it may not serve as an accurate reflection of contemporary perspectives and parenting attitudes. A more recent article examining changes in fatherhood and masculinity within a sample of Swedish fathers who decided to take paternity

---

[1] The author does not intend to use the terms "sex" and "gender" interchangeably. The term "sex" is used in this particular example to reflect the vocabulary used in the source material.

leave (Johansson, 2011) illustrates a shift in traditional gender roles within the familial setting. While this study was limited to a small sample of men, Johansson (2011) argues that it "should be viewed as an attempt to show the variation, complexity and possible developments in masculinity and fatherhood" (Johansson, 2011, p. 178). Furthermore, findings from this study may have been a consequence of summing positive, negative, and general emotions when creating the "emotion state terms" variable instead of analyzing these terms separately. Considering males have been found to display more externalizing emotions during childhood (Chaplin & Aldao, 2013), it is possible that they use language differently when describing emotions they express more frequently.

Parental ISL use and internalizing and externalizing difficulties (Question 3)

In early childhood, caregivers act as scaffolding agents by adapting their interactions to match their child's level of understanding and meet their immediate needs (Beeghly et al., 1986; Recchia & Howe, 2008). I hypothesized that parents who rated their children as experiencing higher levels of internalizing or externalizing difficulties would differentially use ISL during the Emotions Task as a means of enhancing and facilitating their child's level of understanding. Given the negative relationship between EK and internalizing and externalizing problems (Trentacosta & Fine, 2010), I speculated that children rated by their parents as higher in internalizing/externalizing difficulties would display EK and ISL deficits, thus encouraging caregivers to scaffold their understanding by purposefully employing different language.

No significant relationship between mothers' and fathers' use of ISL and their perception of their child's internalizing or externalizing difficulties, however, was found. During the same Emotions Task employed within this study, Roger and colleagues (2012) reported that mothers

utilized more ISL during comments when they reported their child's social skills to be lower. They hypothesized that this increased use of comments was perceived by mothers as an "appropriate way to teach their children about internal states" (Roger et al., 2012, p. 661), while also noting that it may not "leave room for their children to express and develop their emotional understanding" (Roger et al., 2012, p. 661). Moreover, in adopting a Vygotskian perspective (1978), Taumoepeau and Ruffman (2006) discuss how caregivers may employ different mental state terms in order to attend to their child's zone of proximal development. Such adaptation is sensitive to children's individual needs and serves to optimize their level of understanding. In examining maternal mental state language with children 15 to 24 months old, Taumoepeau and Ruffman (2006) found that "mothers talked more frequently about desires when children were younger, with talk about beliefs (thoughts and knowledge) increasing" (Taumoepeau & Ruffman, 2006, p. 475), a transition which is thought to correspond with the typical developmental progression of children's understanding of mental states, as well as scaffold their social understanding (Taumoepeau & Ruffman, 2008). Similar findings were obtained in Taumoepeau and Ruffman's (2008) follow up study in which "mother talk about thoughts and knowledge increased significantly between 15 and 33 months and 24 and 33 months" (Taumoepeau & Ruffman, 2008, p. 297). Beegly and colleagues (1986) also documented age related trends in mothers' use of ISL with their toddlers ages 13 and 28 months, as well as differences in content depending on their child's cognitive and linguistic ability. Within a subsequent part of their study that included children with Down's syndrome, these mothers were found to employ fewer cognitive terms and refer more to their children's physiological states during 45-minutes of free play in comparison to those in control groups (Beegly et al., 1986). Taken together, these results

lend support to the idea that caregivers adapt their use ISL to match the immediate needs of their child.

Results obtained from this study may be a consequence of the fact that the majority of children were rated by their caregivers as displaying internalizing/externalizing behaviours at a level similar to others their age and not within the "At-Risk" or "Clinically Significant" range, as outlined in the BASC-II manual (Reynolds & Kamphaus, 2004). Minimal variation amongst the BASC-II scores may be another contributing factor (see Table 5). As such, children participating in this study may not have required their parents to adjust their ISL in order to facilitate or enhance their understanding. Conversely, it could be that mothers and fathers do not actually make such accommodations depending on their perception of their child's internalizing/externalizing behaviours. Future studies which include a comparison group of children who experience heightened levels of internalizing or externalizing difficulties, however, may yield different results.

Children's ISL and parent ratings of their internalizing and externalizing (Question 4)

It was hypothesized that children's use of ISL would differ depending on parent ratings of their internalizing and externalizing difficulties. In answering this research question, two sets of regression models were tested. The first series of analyses used both parents' internalizing/ externalizing scores on the BASC-II as well as children's ISL use with both parents, as the Emotions Task was completed twice. The next set of models utilized mothers' and fathers' individual BASC-II scores alongside children's ISL use with each parent. The purpose behind including both analyses was to determine whether or not differences emerged and incorporate the unique contribution of each parent and child. Findings obtained from models including the

combined parent BASC-II internalizing/externalizing scores and child ISL use will be discussed first.

Results indicated that males who used a greater amount of cognitive state terms and comments within the emotion-focused task, were rated by their parents as displaying fewer internalizing difficulties. Examples of cognitive state terms are goal, belief/knowledge, and preference terms such as think, know, want, would like, wish, wonder, imagine, understand, remember, like/dislike, and should (Roger, 2009). Comments refer to statements that do not contain any additional explanation or clarification, for example, "she looks mad" (Roger, 2009). Furthermore, males who used more emotion state terms were rated by their parents as lower in externalizing difficulties. Emotion state terms include positive, negative, and general terms such as happy, lonely, mad, sad, surprised, angry, excited, or scared (Roger, 2009). These findings, however, did not emerge within the female group despite no significant overall gender differences in children's use of ISL within the Emotions Task. Taken together, these results suggest that the relationship between ISL and internalizing/externalizing difficulties is different for males and females within the preschool years.

Heinz and colleagues (2015) also reported sex differences in preschool aged children's expressive EK, emotion situation knowledge, and behavioural EK in relation to their internalizing difficulties; males who generated more emotion words in expressive EK tasks self-reported less loneliness, whereas females who produced more words were rated as lower in internalizing symptoms by their parents. Furthermore, "girls with greater emotion situation knowledge tended to have fewer parent-reported internalizing symptoms" (Heinze et al., 2015, p. 251) and "boys with higher behavioral EK tended to have higher parent-reported internalizing symptoms" (Heinze et al., 2015, p. 251). Essentially, females who possessed greater

understanding of events that cause emotion states were rated by their parents as lower in internalizing symptoms, whereas males who are capable of perceiving the behavioral signs associated with certain emotions (i.e. vocalizations) were rated as higher in internalizing symptoms (Heinze et al., 2015). These results suggest differences in the role of various facets of EK in children's early social-emotional functioning, and call for future research examining gender differences.

Gender differences in children's display of emotions as well as parental socialization of emotional expression have also been discussed in the literature (Chaplin & Aldao, 2013; Chaplin, Cole, & Zahn-Waxler, 2005; Cunningham, Kliewer, & Garner, 2009; Denham, Bassett, & Wyatt, 2010). Various frameworks, including biological, social-constructivist, and social-developmental theories have also been adopted within discussions of gender differences in emotion expression (Chaplin & Aldao, 2013). Social-learning theorists, for example, "have long assumed that the different interaction styles of mothers and fathers must somehow help boys and girls acquire gender appropriate behavioral repertoires" (Lamb & Lewis, 2013, p. 127). Chaplin and colleagues (2005) found that females displayed significantly greater submissive emotions (eg. sadness and anxiety) than males across two time points (age 4, age 6) during an emotionally arousing game, whereas males' display of submissive emotions decreased over time. Fathers "showed significantly greater attention to girls' submissive expressions at preschool age" (Chaplin et al., 2005, p. 84) as well as "greater attention to boys' disharmonious expressions than to girls' at early school age" (p. 84). Mothers also demonstrated greater attention towards girls' submissive emotions (Chaplin et al., 2005). Such results highlight early gender differences in children's emotional expression as well as variation in parental responses to certain emotions depending on the gender of their child.

A different pattern of results emerged when mothers' and fathers' individual internalizing/externalizing BASC-II scores were utilized alongside children's ISL use with each parent. Findings revealed that children who employed higher levels of emotion state and cognitive state terms during the Emotions Task with their mothers had lower mother-reported externalizing difficulties. A greater number of cognitive state terms during mother-child conversations was also predictive of lower levels of children's internalizing difficulties, as reported by mothers. No statistically significant findings, however, were obtained when the relationship between fathers' internalizing/externalizing scores and children's use of ISL with their fathers was explored within the same regression model. This suggests a difference in the relationship between the type of ISL employed by children during emotion-focused conversations with their mothers and fathers in relation to parent-reported internalizing/externalizing difficulties. Moreover, these results highlight the importance of model selection as diverse findings were obtained when both parent and child scores were utilized in the same analysis. Future researchers should take this into account when designing studies, interpreting results and drawing conclusions.

In building upon these results, children rated by their parents as higher in internalizing and externalizing problems may lack the linguistic skills associated with interpreting and understanding emotional expressions. Conversely, children who possess these ISL skills may be better equipped with ways to manage and regulate their own behaviour. Emotion-related regulation in childhood has been discussed in reference to children's linguistic ability as well as their level of emotion understanding (Eisenberg, Sadovsky, Spinrad, 2005). According to Einsenberg and colleagues (2005), "children who are better able to communicate with others have more opportunity to learn about mental states, including emotion" (Eisenberg et al., 2005, p.

3). Children's understanding of emotions is also thought to promote their ability to self-regulate (Eisenberg et al., 2005).

These results also have implications for caregivers as well as educators and practitioners working with children and families. Provided that "essential EK skills are typically solidified during early childhood (primarily ages 3–5 years)" (Heinze et al., 2015, p. 242), promoting children's EK during the preschool years, especially if they are experiencing deficits, is essential. Stemming from this study's findings, children with heightened levels of internalizing or externalizing behaviour problems can be taught to utilize ISL within their daily conversations and social interactions. Parents and teachers can also model ISL in the home or classroom environment a means of encouraging children to employ this language. Fostering these skills may assist children in verbally expressing and regulating their own emotions, as well as understanding and responding to the feelings of others.

Limitations

Provided that this study relied on a subset of a larger sample (*N*=100), it is not possible to generalize its results to the population. Only those families from the larger study that were available and willing to take part in the home visit formed the sample. Consequently, results obtained from these families cannot be considered as representative of the population of all parents with preschool aged children. While the sample was convenient and based on voluntary participants, it is impossible to conclude that results obtained from these parent-child interactions are generalizable. Moreover, the sample size of 40 preschool aged children and their caregivers is another notable limitation.

In addition, the families who were already participating in the larger parenting study and agreed to take part in the home visit may differ in terms of their attitudes and personal

characteristics. These families consented to have a research assistant come to their home and film them interacting with their child, while others chose to participate only in the questionnaire portion of the study. Moreover, even though data was collected in a naturalistic environment, the parent-child interactions may have been subject to observer effect. Parents and their children may have acted differently when the research assistant was in their home filming than they would otherwise. This calls into question the validity of the inferences made from their conversations, as we cannot be sure that they are representative of how parents and their children discuss emotions on a regular basis. The Emotions Task itself can also be seen as a foreign way of facilitating emotion-focused discussions, as such an activity is not reflective of how conversations emerge in daily parent-child interactions. Thus, the lack of familiarity with such a task may have influenced the language employed within the parent-child discussions. In addition to this, provided that all children completed the emotions task once with each parent, their first experience may have affected their subsequent performance. Discussions in conjunction with their initial exposure to the emotion cards may have influenced children's use of ISL with their second parent.

Variation in terms of participant's familiarity with the English language is another notable limitation. When asked how often their child speaks a language other than English at home 38.8% of parents reported "never", 20% "once in a while", 17.5% "more than half the time", and 13.8% answered "all of the time". Such discrepancy suggests that the participants had different experiences and exposure to the English language. These differences may have influenced the way in which children participated in the task, as well as the language their parents employed to facilitate their understanding. Thus, an important factor to consider in future studies would be controlling for children's language ability. Another notable limitation is that

only parent ratings of children's internalizing and externalizing difficulties were collected and relied upon in analyses. Including multiple informants, such as preschool teachers or daycare staff, would provide additional information in terms children's social-emotional functioning in different settings.

Finally, this study's sample was primarily composed of middle to upper-middle class families living in Edmonton, Alberta. While other ethnicities were represented in the sample, over half of the families identified as Canadian. Future studies should seek to include families from a wider variety of ethnicities and nationalities and socio-economic backgrounds in order to increase the generalizability of results.

Future Directions and Implications

Despite the aforementioned limitations, this study provides unique insight into the relationship between ISL and social-emotional development within the preschool years. While the majority of children who participated in the study were rated as displaying average levels of internalizing and externalizing difficulties, differences in ISL use emerged for males depending on the extent of their parent-reported difficulties. Male preschool aged children who employed a greater amount of emotion state terms were reported as lower in externalizing difficulties, and those who used more cognitive state terms and comments had fewer parent-reported internalizing difficulties. Within the female group, however, no significant findings were reported for any of the analyses conducted. Given that no overall gender differences were found between males and females use of ISL (research question 2), these findings suggest that the relationship between ISL and externalizing/internalizing difficulties may in fact be different for males and females. Future studies, however, are required to replicate these results and continue to examine these gender differences.

Subsequent studies should also examine ISL within clinical populations of children who experience heightened levels of internalizing/externalizing difficulties and have been formally diagnosed with specific disorders, such as oppositional defiant disorder (ODD), social anxiety disorder (SAD), conduct disorder (CD), or generalized anxiety disorder (GAD). Past research has demonstrated a negative association between social anxiety and EK (O'Toole, Hougaard, & Mennin, 2013) as well as differences in children with Attention Deficit Hyperactivity Disorder (ADHD) and conduct problems in terms of their interpretation of emotions (Cadesky, Mota, & Schachar, 2000). ISL and narrative skills have also been studied in children ages 8 to 12 years old with Asperger Syndrome and ADHD in comparison to a control group (Rumpf, Kamp-Becker, Becker, & Kauschke, 2012). Moreover, Miranda, Baixauli, and Colomer (2013) examined the use of internal state terms in a sample of young adults diagnosed with childhood ADHD within the context of a writing task. Significant differences emerged in terms of the overall number of ISL terms utilized amongst those in the ADHD and control group, most specifically in reference to their inclusion of evaluation and emotion terms (Miranda et al., 2013). Based on their findings, Miranda and colleagues (2013) propose that "deficits of people with ADHD are more pronounced on emotional aspects of empathy than on cognitive aspects involving the intellectual comprehension of other people's experiences" (Miranda et al., 2013, p. 1947). Similar studies conducted with clinical and community samples of children would help to identify whether or not these ISL differences emerge in narrative stories constructed in early childhood, as well as their association with internalizing/externalizing disorders.

Furthermore, O'Kearney and Dadds (2005) reported group differences in emotion language amongst adolescents with internalizing and externalizing disorders within emotion-eliciting tasks. In comparison to those within the control group, externalizing adolescents'

emotion language is "less frequent, more complex, and makes less use of semantically specific emotion terms" (O'Kearney and Dadds, 2005, p. 543). Differences were also reported within the internalizing group, as they were more "cognitively focused in their linguistic representation of emotions and less focused specifically on affect than both their non-problem and externalizing peers" (O'Kearney and Dadds, 2005, p. 545). Similar studies conducted with clinical populations of preschool aged children would help to identify disorder-specific aspects of emotion language that manifest earlier on in development. Given the EK deficits associated with internalizing and externalizing difficulties (Trentacosta & Fine, 2010), efforts towards developing a greater understanding of how these challenges manifest in young children's speech regarding emotions and familial interactions are crucial, and can help to inform practitioners in their work with children and families.

Furthermore, this study only examined parents' and children's use of ISL within the context of an emotion focused task at a single point in time. Future studies should seek to understand the longitudinal development of ISL by including multiple measurement points across early childhood. ISL can also be assessed across different tasks, such as play, clean up, mealtime, or day-to-day conversations; this design which would help researchers and practitioners reach a better understanding the developmental trajectory of ISL in the context of the family environment. Observational methods in the school context can also provide further information in terms of how EK and ISL is employed within everyday peer interactions (Heinze et al., 2015).

The influence of culture should be also taken into consideration within future research on ISL. Surrounded by an "emotional culture" (Gordon, 1991, p. 319), children come to develop an understanding of emotions that "reproduces the interactional adaptations required by their social environment" (Gordon, 1991, p. 319). Various cultures, however, demonstrate notable

differences in their categorization and conceptualization of emotions. According to Russell (1991), "the word emotion itself appears to be culture-bound" (Russell, 1991, p. 297). Some emotion terms, for example, cannot be directly translated into English (Russell, 1991) indicating a possible linguistic or cultural disjunct. Cultural differences have also been discussed in the acquisition of emotional scripts (Lewis, 1991), facial expressions (Matsumoto, 1991), and emotion recognition accuracy (Elfenbein & Ambady, 2003). Thus, future studies should seek to examine parent-child emotion focused conversations within diverse social, ethnic, and cultural groups.

Conclusion

The preschool years have been described as the "opportune time to explore how children learn about emotions" (Denham & Kochanoff, 2002, p. 312). Within the first two to three years, children demonstrate the capacity to respond empathetically and sensitively toward others, and show heightened interest in their feelings states as well as those of those around them (Dunn, 1988). As children begin to rely on language to comprehend emotion states and negotiate interpersonal situations, parents serve as models in shaping and promoting their child's knowledge and understanding of emotions (Bronson, 2000). Furthermore, "the way parents interact with their children on an emotional level has been associated with children's social and emotional functioning" (Cunningham et al., 2009, p. 262). As such, examining parent-child interactions is essential to furthering our understanding of the development of emotion knowledge and use of internal state language in early childhood.

This study examined how mothers and fathers facilitate an emotion-focused discussion with their preschool aged children. Children's use of ISL was also coded and analyzed in relation to parent-reported internalizing and externalizing difficulties. Results demonstrated no

statistically significant differences in terms of the type and function of ISL utilized by mothers and fathers, as well as males and females within the emotions task. Furthermore, no significant relationship emerged between mothers' and fathers' use of ISL and ratings of their child's internalizing and externalizing difficulties. Statistically significant findings were reported, however, when the predictive relationship between children's use of ISL and parent-reported internalizing/externalizing difficulties were examined in both sets of regression models. The type of ISL utilized by children during emotion-focused conversations with their mothers was predictive of their internalizing/externalizing difficulties, as reported by mothers. This relationship, however, did not emerge within father-child dyads. Taken together, these findings highlight the importance of future research examining the relationship between internalizing and externalizing difficulties and ISL in early childhood, as well as the necessity of including both parents in observational studies.

References

Adams, P. (2006). Exploring social-constructivism: theories and practicalities. *Education*, *34*(3), 243-257.

Adams, S., Kuebli, J., Boyle, P. K., & Fivush, R. (1995). Gender differences in parent-child conversations about past emotions: A longitudinal investigation. *Sex Roles*, *33*(5), 309-323.

Ateah, C. A., Kail, R. V., & Cavanaugh, J. C. (2009). *Human development: A lifespan view* (2nd ed., pp. 142-143). N.p.: Nelson Education Ltd.

Aznar, A., & Tenenbaum, H. (2015). Gender and age differences in parent-child emotion talk. *British Journal of Developmental Psychology*, *33*(1), 148-155.

Bandura, A. (1969). *Principles of behaviour modification*. New York: Holt, Rinehart & Winston.

Bandura, A. (1999). Social cognitive theory: An agentic perspective. *Asian Journal of Social Psychology*, *2*(1), 21-41.

Bandura A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall

Bandura, A. (2005) The evolution of social cognitive theory. In K.G. Smith & M.A. Hitt (Eds.) *Great Minds in Management.* (pp. 9-35) Oxford: Oxford University Press.

Baptista, J., Osorio, A., Martins, E. C., Castiajo, P., Barreto, A. L., Mateus, V., & Soares, I. (2017). Maternal and paternal mental-state talk and executive function in preschool children. *Social Development*, *26*(1), 129-145.

Beeghly, M., Bretherton, I., & Mervis, C. (1986). Mothers' internal state language to toddlers. *British Journal of Developmental Psychology*, *4*(3), 247-261.

Bronson, M. B. (2000). *Self-regulation in early childhood*. New York, NY: The Guilford Press.

Burlaka, V., Bermann, E. A., & Graham-Bermann, S. A. (2015). Internalizing problems in at-risk preschoolers: Associations with child and mother risk factors. *Journal of Child and Family Studies*, *24*(9), 2653-2660.

Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, *106*(4), 676-713.

Burt, K. B., Obradovic, J., Long, J. D., & Masten, A. S. (2008). The interplay of social competence and psychopathology over 20 years: Testing transactional and cascade models. *Child Development*, *79*(2), 359-374.

Cabrera, N. J., Tamis-LeMonda, C. S., Bradley, R. H., Hofferth, S., & Lamb, M. E. (2000). Fatherhood in the twenty-first century. *Child Development*, *71*(1), 127-136.

Cadesky, E., Mota, V., & Schachar, R. (2000). Beyond words: How do children with ADHD and/or conduct problems process non-verbal information about affect? *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*(9), 1160-1167.

Campbell, S. B. (1995). Behaviour problems in preschool children: A review of recent research. *Journal of Child Psychology and Psychiatry*, *36*(1), 113-149.

Campbell, S., Shaw, D., & Gilliom, M. (2000). Early externalizing behaviour problems: Toddlers and preschoolers at risk for later maladjustment. *Development and Psychopathology*, *12*(3), 467-488.

Carpendale, J., & Lewis, C. (2006). *How children develop social understanding*. Malden, MA: Blackwell Publishing.

Carpendale, J., & Lewis, C. (2004). Constructing an understanding of mind: The development of children's social understanding within social interaction. *Behavioural and Brain Sciences*, *27*(1), 79-151.

Carpenter, A. L., Puliafico, A. C., Kurtz, S. M., Pincus, D. B., & Comer, J. S. (2014). Extending parent-child interaction therapy for early childhood internalizing problems: New advances for an overlooked population. *Clinical Child Family Psychology Review*, *17*, 340-356.

Cervantes, C., & Callanan, M. (1998). Labels and explanations in mother-child emotion talk: Age and gender differentiation. *Developmental Psychology*, *34*(1), 88-98.

Chaplin, T., & Aldao, A. (2013). Gender differences in emotion expression in children: A meta-analytic review. *Psychological Bulletin*, *139*(4), 735-765.

Chaplin, T. M., Cole, P. M., & Zahn-Waxler, C. (2005). Parental socialization of emotion expression: Gender differences and relations to child adjustment. *Emotion*, *5*(1), 80-88.

Cook, A. S., Fritz, J. J., McCornack, B. L., & Visperas, C. (1985). Early gender differences in the functional usage of language. *Sex Roles*, *12*(9/10), 909-915.

Coyne, L. W., & Thompson, A. D. (2011). Maternal Depression, Locus of Control, and Emotional Regulatory Strategy as Predictor's of Preschoolers' Internalizing Problems. *Child Family Studies*, *20*, 873-883.

Cunningham, J. N., Kliewer, W., & Garner, P. W. (2009). Emotion socialization, child emotion understanding and regulation, and adjustment in urban African American families: Differential associations across child gender. *Development and Psychopathology*, *21*(1), 261-283.

Denham, S. A., Bassett, H. H., Way, E., Minic, M., Zinsser, K., & Graling, K. (2012). Preschoolers' emotion knowledge: Self-regulatory foundations, and predictions of early school success. *Cognition and Emotion*, *26*(2), 667-669.

Denham, S. A., Blair, K. A., DeMulder, E., Levitas, J., Sawyer, K., Auerbach-Major, S., &
Queenan, P. (2003). Preschool emotional competence: Pathway to social competence?
Child Development, *74*(1), 238-256.

Denham, S. A., Caverly, S., Schmidt, M., Blair, K., DeMulder, E., Caal, S., & Hamada, H.
(2002). Preschool understanding of emotions: contributions to classroomanger and
aggression. *Journal of Child Psychology and Psychiatry*, *43*(7), 901-916.

Denham, S. A., Cook, M., & Zoller, D. (1992). 'Baby Looks Very Sad': Implications of
conversations about feelings between mother and preschooler. *British Journal of
Developmental Psychology*, *10*, 301-315.

Denham, S., & Kochanoff, A. T. (2002). Parental contributions to preschoolers' understanding of
emotion. *Marriage & Family Review*, *34*(3-4), 311-343.

Denham, S. A., Mitchell-Copeland, J., Strandberg, K., Auerbach, S., & Blair, K. (1997). Parental
contributions to preschoolers' emotional competence: Direct and indirect effects.
Motivation and Emotion, *21*(1), 65-86.

Denham, S. A., Zoller, D., & Couchoud, E. A. (1994). Socialization of preschoolers' emotion
understanding. *Developmental Psychology*, *30*(6), 928-936.

Dos Santos, L., Queiros, F., Barreto, M., & Dos Santos, D. (2016). Prevalence of behavior
problems and associated factors in preschool children from the city of Salvador, state of
Bahia, Brazil. *Revista Brasileira de Psiquiatria*, *38*(1), 45-52.

Dunn, J. (1988). *The beginnings of social understanding*. Oxford, UK: Basil Blackwell Ltd.

Dunn, J., Brown, J., & Beardsall, L. (1991). Family talk about feeling states and children's
later understanding of others' emotions. *Developmental Psychology*, *27*(3), 448-455.

Dunn, J., Bretherton, I., & Munn, P. (1987). Conversations about feeling states between mothers and their young children. *Developmental Psychology*, *23*(1), 132-139.

Eisenberg, N., Sadovsky, A., & Spinrad, T. L. (2005). Associations of emotion-related regulation with language skills, emotion knowledge, and academic outcomes. *New Directions for Child and Adolescent Development*, 109-118.

Elfenbein, H. L., & Ambady, N. (2003). Cultural similarity's consequences: A distant perspective on cross-cultural differences in emotion recognition. *Journal of Cross-Cultural Psychology*, *34*(1), 92-110.

Ensor, R., Spencer, D., & Hughes, C. (2011). 'You feel sad?' Emotion understanding mediates effects of verbal ability and mother-child mutuality on prosocial behaviours: Findings from 2 years to 4 years. *Social Development*, *20*(1), 93-110.

Ereky-Stevens, K. (2008). Associations between mothers' sensitivity to their infants' internal states and children's later understanding of mind and emotion. *Infant and Child Development*, *17*(5), 527-543.

Fine, S. E., Izard, C. E., Mostow, A. J., Trentacosta, C. J., & Ackerman, B. P. (2003). First grade emotion knowledge as a predictor of fifth grade self-reported internalizing behaviours in children from economically disadvantaged families. *Development and Psychopathology*, *15*(2), 331-342.

Gleason, M. M., Zamfirescu, A., Egger, H. L., Nelson III, C. A., Fox, N. A., & Zeanah, C. H. (2011). Epidemiology of psychiatric disorders in very young children in a Romanian pediatric setting. *European Child & Adolescent Psychiatry*, *20*(10), 527-535.

Gobel, A., Henning, A., Moller, C., & Aschersleben, G. (2016). The relationship between emotion comprehension and internalizing and externalizing behaviour in 7-to-10- year-old children. *Frontiers in Psychology*, *7*, 1-11.

Gordon, S.L. (1991) The socialization of children's emotions: emotional culture, competence, and exposure. In C. Saarni & P.L. Harris (Eds.) *Children's understanding of emotion* (pp. 319). New York, NY; Cambridge University Press

Gunn Jr, W. B., Haley, J., Prouty, A. M., & Robertson, J. (2015) Systemic Approaches. In H.T. Prout & A.L. Fedewa (Eds.) *Counseling and psychotherapy with children and adolescents* (5th ed., pp. 317-348). Hoboken, NJ: Wiley.

Gudmundsson, O., Magnusson, P., Saemundsen, E., Lauth, B., Baldursson, G., Skarphedinsson, G., & Fombonne, E. (2013). Psychiatric disorders in an urban sample of preschool children. *Child and Adolescent Mental Health*, *18*(4), 210-217.

Hammond, S. I., & Carpendale, J. I. (2014). Helping Children Help: The Relation Between Maternal Scaffolding and Children's Early Help. *Social Development*, *24*(2), 367-383.

Harris, P. L., De Rosnay, M., & Pons, F. (2005). Language and children's understanding of mental states. *Current Directions in Psychological Science*, *14*(2), 69-73.

Heinze, J. E., Miller, A. L., Seifer, R., Dickstein, S., & Locke, R. L. (2015). Emotion knowledge, loneliness, negative social experiences, and internalizing symptoms among low income preschoolers. *Social Development*, *24*(2), 240-265.

Hesse, P., & Cicchetti, D. (1982). Perspectives on an integrated theory of emotional development. *New Directions for Child and Adolescent Development*, *1982*(16), 3-48.

Hofferth, S.L., Pleck J.H., Goldscheider F., Curtin S, Hrapczynski K. (2013) Family structure and men's motivation for parenthood in the United States. In N.J. Cabrera & C.S. Tamis-

LeMonda (Eds.) *Handbook of Father Involvement* (2nd ed., pp. 57–80). New York: Routledge.

Izard, C., Fine, S., Schultz, D., Mostow, A., Ackerman, B., & Youngstrom, E. (2001). Emotion knowledge as predictor of social behaviour and academic competence in children at risk. *Psychological Science*, *12*(1), 18-22.

Jenkins, J. M., Turrell, S. L., Kogushi, Y., Lollis, S., & Ross, H. S. (2003). A longitudinal investigation of the dynamics of mental state talk in families. *Child Development*, *74*(3), 905-920.

Johansson, T. (2011). Fatherhood in transition: Paternity leave and changing masculinities. *Journal of Family Communication*, *11*(3), 165-180.

John-Steiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational Psychologist*, *31*(3/4), 191-206.

Kauschke, C., Van der Beek, B., & Kamp-Becker, I. (2016). Narratives of girls and boys with autism spectrum disorders: Gender differences in narrative competence and internal state language. *Journal of Autism and Developmental Disorders*, *46*(3), 840-852.

Kujawa, A., Dougherty, L., Durbin, E., Laptook, R., Torpey, D., & Klein, D. (2014). Emotion Recognition in Preschool Children: Associations with Maternal Depression and Early Parenting. *Development and Psychopathology*, *26*, 159-170.

Kwon, K., Jeon, H., Lewsader, J., & Elicker, J. (2012). Mothers' and fathers' parenting quality and toddlers' interactive behaviours in dyadic and triadic family contexts. *Infant and Child Development*, *21*(4), 356-373.

LaBounty, J., Wellman, H. M., Olson, S., Lagattuta, K., & Liu, D. (2008). Mothers' and fathers' use of internal state talk with their young children. *Social Development*, *17*(4), 757-775.

Lamb, M.E., & Lewis, C. (2010) The development and significance of father-child relationships in two parent families. In M.E. Lamb (Eds.) *The Role of the Father* (5th ed., pp. 94-153). Hokoken, New Jersey: John Wiley & Sons, Inc.

Lamb, M.E., & Lewis, C. (2013) Father-child relationships. In N.J. Cabrera & C.S. Tamis-LeMonda (Eds.) *Handbook of Father Involvement* (2nd ed., pp. 119–135). New York: Routledge.

Lavigne, J., Gibbons, R., Christoffel, K., Arend, R., Rosenbaum, D., Binns, H., & Dawson, N. (1996). Prevalence rates and correlates of psychiatric disorders among preschool children. *Journal of the American Academy of Child and Adolescent Psychiatry*, *35*(2), 204-214.

Leaper, C., & Bigler, R.S. (2011) Gender. In M.K. Underwood & L.H. Rosen (Eds.) *Social development: Relationships in infancy, childhood, and adolescence* (pp. 289-315). New York, NY: The Guilford Press

Lemche, E., Kreppner, J. M., Joraschky, P., & Klann-Delius, G. (2007). Attachment organization and the early development of internal state language: A longitudinal perspective. *International Journal of Behavioural Development*, *31*(3), 252-262.

Lewis, M. (1991) Cultural differences in children's knowledge of emotional scripts. In C. Saarni & P.L. Harris (Eds.) *Children's understanding of emotion* (1st ed., pp. 350-375). New York, NY; Cambridge University Press.

Liu, C. C., & Chen, I. J. (2010). Evolution of constructivism. *Contemporary Issues in Educational Research*, *3*(4), 63-66.

Litowitz, B.E. (1996) Deconstruction in the zone of proximal development. In E.A. Forman, N. Minick & C.A. Stone (Eds.) *Contexts for learning: Sociocultural dynamics in children's development* (pp. 184–196). New York: Oxford University Press

Longobardi, E., Lonigro, A., & Laghi, F. (2016). References to mental states in mother–child conversation in the second year of life. *Journal of Child and Family Studies*, *25*(3), 756-766.

Mallory, B. L., & New, R. S. (1994). Social constructivist theory and principles of inclusion: Challenges for early childhood and special education. *The Journal of Special Education*, *28*(3), 322-337.

Mahn, H. (1999). Vygotsky's methodological contribution to sociocultural theory. *Remedial and Special Education*, *20*(6), 341-350.

Matsumoto, D. (1991). Cultural influences on facial expression of emotion. *Southern Communication Journal*, *56*(2), 128-137.

McClure, E. (2000). A meta-analytic review of sex differences in facial expression processing and their development in infants, children and adolescents. *Psychological Bulletin*, *126*(3), 424-453.

Meins, E., Fernyhough, C., Johnson, F., & Lidstone, J. (2006). Mind-mindedness in children: Individual differences in internal-state talk in middle childhood. *British Journal of Developmental Psychology*, *24*(1), 181-196.

Meichenbaum, D. (1984). Teaching thinking: A cognitive-behavioural perspective. In R. Glaser, S. Chipman & J. Segal (Eds.), *Thinking and Learning Skills: Research and Open Questions*. (2nd ed., pp. 407-462). Hillsdale, NJ: Erlbaum.

Metcalfe, L. A., Harvey, E. A., & Laws, H. B. (2013). The longitudinal relation between academic/cognitive skills and externalizing behaviour problems in preschool children. *Journal of Educational Psychology*, *105*(3), 881-894.

Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development*, *56*(2), 289-302.

Miranda, A., Baixauli, I., & Colomer, C. (2013). Narrative writing competence and internal state terms of young adults clinically diagnosed with childhood attention deficit hyperactivity disorder. *Research in Developmental Disabilities*, *34*(6), 1938-1950.

O'Kearney, R., & Dadds, M. (2005). Language for emotions in adolescents with externalizing and internalizing disorders. *Development and Psychopathology*, *17*(2), 529-548.

O'Toole, M. S., Hougaard, E., & Mennin, D. S. (2013). Social anxiety and emotion knowledge: A meta-analysis. *Journal of Anxiety Disorders*, *27*(1), 98-108.

Palkovitz, R., Trask, B. S., & Adamsons, K. (2014). Essential differences in the meaning and processes of mothering and fathering: Family systems, feminist and qualitative perspectives. *Journal of Family Theory and Review*, *6*(4), 406-420.

Pears, K. C., & Moses, L. J. (2003). Demographics, parenting, and theory of mind in preschool children. *Social Development*, *12*(1), 1-20.

Recchia, H. E., & Howe, N. (2008). Family talk about internal states and children's relative appraisals of self and sibling. *Social Development*, *17*(4), 776-794.

Reynolds, C. R., & Kamphaus, R. W. (2004). *Behaviour Assessment System for Children* (2nd ed.). Circle Pines, MN: AGS Publishing.

Rhoades, B., Warren, H., Domitrovich, C., & Greenberg, M. (2011). Examining the link between preschool social–emotional competence and first grade academic achievement: The role of attention skills. *Early Childhood Research Quarterly*, *26*(2), 182-191.

Rinaldi, C., & Howe, N. (2012). Mothers' and fathers' parenting styles and associations with toddlers' externalizing, internalizing, and adaptive behaviours. *Early Childhood Research Quarterly*, *27*(2), 266-273.

Roger, K. M. (2009). *Mothers' and fathers' talk of internal states with toddler and preschool children: Gender differences and predictors for parental ratings of children's social skills* (Master's thesis).

Roger, K. M., Rinaldi, C. M., & Howe, N. (2012). Mothers' and fathers' internal state language with their young children: An examination of gender differences during an emotions task. *Infant and Child Development*, *21*, 646-666.

Roggman L.A., Bradley R.H., & Raikes H.H. (2013). Fathers in family contexts. In N.J. Cabrera & C.S. Tamis-LeMonda (Eds.) *Handbook of Father Involvement* (2nd ed., pp. 186-202). New York: Routledge.

Ruffman, T., Slade, L., & Crowe, E. (2002). The relation between children's and mothers' mental state language and theory-of-mind understanding. *Child Development*, *73*(3), 734-751.

Rumpf, A., Kamp-Becker, I., Becker, K., & Kauschke, C. (2012). Narrative competence and internal state language of children with Asperger Syndrome and ADHD. *Research in Developmental Disabilities*, *33*(5), 1395-1407.

Russell, J.A. (1991) Culture, scripts, and children's understanding of emotions. In: C. Saarni & P.L. Harris (Eds.) *Children's understanding of emotion* (1st ed., pp. 293-314). New York, NY; Cambridge University Press

Samarakkody, D., Fernando, D., McClure, R., Perera, H., & De Silva, H. (2012). Prevalence of externalizing behaviour problems in Sri Lankan preschool children: birth, childhood, and sociodemographic risk factors. *Social Psychiatry and Psychiatric Epidemiology*, *47*(5), 757-762.

Sattler, J. M. (2014). *Foundations of behavioural, social and clinical assessment of children* (6th ed.). La Mesa, CA: Jerome M Sattler, Publisher, Inc.

Schultz, D., Izard, C. E., Ackerman, B. P., & Youngstrom, E. A. (2001). Emotion knowledge in economically disadvantaged children: Self-regulatory antecedents and relations to social difficulties and withdrawal. *Development and Psychopathology*, *13*(1), 53-67.

Shala, M., & Dhamo, M. (2013). Prevalence of behavioural and emotional problems among two to five years old kosovar preschool children—Parent's report. *Psychology*, *4*(12), 1008-1013.

Slaughter, V., Dennis, M., & Pritchard, M. (2002). Theory of mind and peer acceptance in preschool children. *British Journal of Developmental Psychology*, *20*(4), 545-564.

Slaughter, V., Peterson, C., & Mackintosh, E. (2007). Mind what mother says: Narrative input and theory of mind in typical children and those on the autism spectrum. *Child Development*, *78*(3), 839-858.

Stetsenko, A., & Arievitch, I. (1997). Constructing and deconstructing the self: Comparing post-Vygotskian and discourse based versions of social constructivism. *Mind, Culture, and Activity*, *4*(3), 159-172.

Taumoepeau, M., & Ruffman, T. (2006). Mother and infant talk about mental states relates to desire language and emotion Understanding. *Child Development*, *77*(2), 465-481.

Taumoepeau, M., & Ruffman, T. (2008). Stepping stones to others' minds: Maternal talk relates to child mental state language and emotion understanding at 15, 24, and 33 months. *Child Development*, *79*(2), 284-302.

Torres, M., Domitrovich, C., & Bierman, K. (2015). Preschool interpersonal relationships predict kindergarten achievement: Mediated by gains in emotion knowledge. *Journal of Applied Developmental Psychology*, *39*, 44-53.

Trentacosta, C. J., & Fine, S. E. (2010). Emotion knowledge, social competence, and behaviour problems in childhood and adolescence: A meta-analytic review. *Social Development*, *19*(1), 1-23.

Trentacosta, C., & Izard, C. (2007). Kindergarten children's emotion competence as a predictor of their academic competence in first grade. *Emotion*, *7*(1), 77-88.

Uppal, S. (2015). Employment patterns of families with children. *Insights on Canadian Society*, 1-12.

Van der Pol, L. D., Groeneveld, M. G., Van Berkel, S. R., Endendijk, J. J., Hallers-Haalboom, E. T., Bakermans-Kranenburg, M. J., & Mesman, J. (2015). Fathers' and mothers' emotion talk with their girls and boys from toddlerhood to preschool age. *Emotion*, *15*(6), 854-864.

Vygotsky, L. S. (1962) *Thought and language*. Cambridge, MA: MIT Press.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge MA: Harvard University Press.

Vygotsky, L.S. (1978). Interaction between learning and development. In Gauvain & Cole (Eds.) *Readings on the Development of Children* (pp. 34-40)*.* New York: Scientific American Books.

Vygotsky, L.S. (1987). *The collected works of L.S. Vygotsky: Vol 1. Problems of general psychology.* New York: Plenum.

Wallentin, M. (2009). Putative sex differences in verbal abilities and language cortex: A critical review. *Brain & Language*, *108*(3), 175-183.

Wellman, H. M., & Estes, D. (1986). Early understanding of mental entities: A reexamination of childhood realism. *Child Development*, *57*(4), 910-923.

Zabel, R. (1979). Recognition of emotions in facial expressions by emotionally disturbed and nondisturbed children. *Psychology in the Schools*, *16*(1), 119-126.