Exploring the Impacts of the Parent-Child Mother Goose Program

By

Natasha Weber

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

Master of Science

in

Family Ecology and Practice

Department of Human Ecology
University of Alberta

ABSTRACT

This community-based research employed mixed methods to explore how the Parent-Child Mother Goose (PCMG) program strengthens positive parent-child relationships. The research focused on exploring parent-child relationships through attachment theory and selected determinants of parenting (parent self-efficacy and emotion regulation). Research indicates that high levels of parent self-efficacy and emotion regulation are positively linked to secure attachment and positive parent-child relationships. It was hypothesized that the PCMG program promotes these determinates of parenting, thus helping build strong relationships and secure attachment. Previous research on the PCMG program found evidence of positive outcomes such as an increase in confidence, knowledge, and social support in parents and for children, an increase in secure attachment and language development. The literature had yet to quantitatively explore emotion regulation as an outcome of the program and only previous evaluations had briefly examined the experience of program facilitators.

The current, mixed methods study was designed in collaboration with the Fort Saskatchewan Families First Society (FSFFS) and was completed in two phases.. The first phase collected qualitative data from, observations, program materials, and focus groups with current and past facilitators (n=17). The second phase gathered quantitative data through pre- and post-test questionnaires filled out by program participants (n=87). Results from this study were promising. The quantitative results indicated that the program seems to increase parents' sense of competence, self-efficacy and satisfaction in parenting. Qualitative data indicated that the program may influence secure attachment in the child and emotion regulation for the parent. The findings from the focus groups also indicated how the program increases social support and

facilitates many of the program outcomes. The study concluded that the PCMG program facilitates learning that promotes positive parent-child relationships, increase parent's confidence and emotion regulation skills, and develop social support systems for parents. The study has some limitations including the lack of a comparison group and the reliance on self-report methods to measure attachment (which is typically measured through expert observations). Nonetheless, the study added to the existing literature on parenting programs, facilitation techniques, and attachment measurements. As this was a community-based research project, the results will also inform planning, program improvement and funding for the FSFFS. Programs, such as PCMG and community agencies like FSFFS are excellent resources to families and communities as they provide parents the skills, knowledge, strategies, and community support, to feel confident in their parenting abilities, which can positively influence the parent-child relationship and produce healthier families within the community.

Key words: parenting program, parent-child relationships, parent-child mother goose, attachment, parent self-efficacy, emotion regulation

PREFACE

This thesis is an original work by Natasha Weber. Two research projects make up the work that is found in this thesis. The first received research ethics approval from the University of Alberta Research Ethics Board, Project Name "PARENT-CHILD MOTHER GOOSE FACILITATOR FOCUS GROUP", No. Pro00038131, February 11, 2014. The second project also received research ethics approval from the University of Alberta Research Ethics Board, Project Name "PARENT-CHILD MOTHER GOOSE PROGRAM RESEARCH STUDY", No. Pro00049632, November 4, 2014.

ACKNOWLEDGEMENTS

Table of Contents

List of Tables

List of Figures

Chapter 1 - Introduction

One of the most important relationships a person will ever have is their first one. The relationship between a parent and a child, even at infancy is incredibly important and influential for the infant's well-being and development. Babies that form long lasting, secure attachments to their parents or caregivers are better positioned for emotional and mental well-being. This includes the ability for the children to develop and maintain successful relationships as they age, the development of desirable personality qualities, the ability to self-regulate emotions, a more positive self-regard, better problem solving skills, enhanced conscience development, and decreased feelings of loneliness (Thompson, 2008; Wearden, Peters, Berry, Barrowclough & Liversidge, 2008).

The parents play a significant role in establishing and maintaining positive relationships with their young child or infant (Tarabulsy & Symons, 2016). Attachment theory has developed into a mainstream concept that explains and attempts to measure the phenomenon and importance of positive parent-child relationships. Attachment theory suggests that a caregiver's responsiveness to a child's needs at a very early age can determine the level of secure attachment that child has with the parent (typically in the literature this is the mother) (Cassidy, 2016). The ability to be responsive to a child's needs is highly dependent on the parenting approach parents may take with their child(ren). Typically that approach includes parents responding sensitively and appropriately to their child's cues, which can change as they age (Millers & Commons, 2010; Belsky, 2014). It also includes a timely response to an infant's or child's distress with sensitive and soothing behaviours to calm them down (McElwain, & Booth-LaForce, 2006). In order to respond appropriately, the parents should understand their child's needs and be aware of their own reactions. This skill takes practice and is often determined by the tools available to the parent. According to Belsky's (2014) process model of parenting, four categories of factors determine the quality of parenting – parents' developmental history, parents' psychological resources, social support, and the child's characteristics. Interventions and programs that focus on parenting practices, such as being able to respond sensitively and emotionally appropriate to an infant's needs, are known to be successful in ensuring secure attachments in infants (Berlin, Zeanah & Lieberman, 2008). One such intervention is the Parent-Child Mother Goose (PCMG)

program which teaches parents how to bond with their children through songs, rhymes and stories.

Context of Study: Parent-Child Mother Goose Program

Since the mid-1980s, in Canada, the United States and Australia, PCMG has been teaching parents, grandparents and other caregivers songs, rhymes and stories through oral repetition. This program strengthens parent-child bonds and establishes positive family relationship patterns through promoting and teaching positive parenting strategies and responses (Janzen, 2001). According to the PCMG website, "The atmosphere is accepting and supportive, with the intention of building the confidence of all participants, and creating a feeling of community and mutual support within the group" (National PCMG, n.d. "Heart of PMCG Program," para. 3). The program's teachings are uniquely targeted to the parents and/or caregiver, and the children participate when appropriate.. All materials are presented orally and new songs, stories and rhymes are only introduced after several sessions to allow parents time to internalize the teachings and subsequently to use them in their own lives. Through interactive language and non-intrusive behavior modeling, the program attempts to establish or enhance the skills, competency and confidence of parents and caregivers as they navigate the sometimes stressful, yet rewarding early years of child rearing (The Parent-Child Mother Goose Program, 1994). PCMG also provides a social network support system and connection to the community (Formosa, Heinz & Lieber, 2003). Finally, through subtle, but deliberate techniques, the program allows participants to learn about their child's needs and explore their own parenting experience and approach in a safe environment (Terrett, White & Spreckley, 2012).

Purpose and Method

The purpose of this community-based research was to study the impact of the Parent-Child Mother Goose program, specifically as it relates to parent-child relationships. This study used both qualitative and quantitative methods to examine how the PCMG program promotes positive parent-child relationships. First, the qualitative methods included observations, program material review, and focus groups with the purpose of understanding of how the program works and the impacts on parent-child relationships as observed by facilitators. The study went on to further measure the strength of parent-child relationships through quantitatively assessing program participants for secure attachment and parenting factors (parent self-efficacy and

emotion regulation) that promote attachment and positive parent-child relationships. Past peer reviewed research on the PCMG program employed primarily quantitative methods and only assessed the participants of the program (Sharfe, 2011, Terrett, et al., 2012). I contributed to this literature by examining the impact of the program from multiple perspectives and using complimentary methods that could elaborate, enhance or clarify one set of results with another.

Research Questions

The primary goal of this study was to answer the question: How does the PCMG program impact parent-child relationships? A few studies have found evidence that the PCMG program increases positive interactions between parent and child and satisfaction with parent-child relationships (Carrol, 2005; Formosa, et al., 2003; Terrett, et al.2012). However, no studies have used parent-child relationships as a framework to explore the impacts of the PCMG program. Based on the previous literature and conversations with FSFFS, it was hypothesized that the PCMG program promotes positive parent-child relationships through the processes at which the program is facilitated. These processes will be described and analyzed throughout this thesis.

As it is difficult to directly measure parent-child relationships, especially when the child is an infant or toddler, the current study analyzed factors that are known to contribute to positive parent-child relationships. Attachment theory was used to explore the outcomes of positive parent-child relationships, while factors that influence parenting approaches examined the processes that impact positive parent-child relationships. This focus on both outcome and process of parent-child relationships led the study to further explore the following research questions:

- Does the PCMG program promote secure attachment styles in infants/toddlers? If so, how? One previous study found evidence that the PCMG program promotes secure attachment and other intervention studies have found that similar parenting programs can influence attachment styles (Scharfe, 2011; Rutter & Azis-Clauson, 2016). The current study mimicked Scharfe's (2011) study of the PCMG program to see if similar positive results could be found quantitatively to either confirm or explore other explanations for this particular program outcome.

- Does the PCMG program increase parental self-efficacy in program participants? If so, how? Previous research on the PCMG program and similar programs have found

an increase in parent self-efficacy due to program participation (Carol, 2005; Weis, 2006; Sharfe, 2011; Wittkowski, Dowling, & Smith, 2016). It was anticipated that quantitative data from this study would find similar results and that the qualitative data could help explain how the program achieves this outcome.

- Does the PCMG program increase emotional regulation strategies in participants? If so, how? Case studies of participants of the PCMG program found that infant directed singing acted as a strategy for mothers when dealing with stress (Weis, 2005). Other clinical interventions have found that parenting interventions can increase emotion regulation in at-risk parents. (Suchman, Decoste, McMahon, Rounsaville & Mayes, 2011). The role of emotion regulation was the biggest gap in the literature that the current study explored. It was hypothesized, through discussing with the Fort Saskatchewan Families, that one of the outcomes of the program was an increase in emotion regulation in the parent(s)and therefore it was included in the study.

Chapter 2 – Literature Review

The Parent-Child Mother Goose program aims to provide teachings and strategies to positively impact the relationship between the participating parents and their child(ren). As this study aims to research the impact of the PCMG program, the literature review will explore the evidence to date on the factors that promote positive parent-child relationships, including secure attachment and factors that influence parenting. To start, the literature review seeks to explain the relevant theories and research that pertain to parent-child relationships in order to contextualize this concept within the present study. As parent-child relationships is a broad topic, the review and the research study will narrow the focus, and look at attachment security as a way to not only describe parent-child relationships, but also to help measure the strength of these relationships. Specific factors that determine parenting approaches that promote secure attachment are reviewed as they are relevant to the focus of the study. Moving from theory to applied research, the review will summarize studies on parenting programs that intend to promote positive parent-child relationships and explore, where appropriate, gaps within the literature. Finally, a critical review of previous PCMG related research is explored to identify further gaps and provide examples of where the current study will contribute to academic knowledge.

Literature Review Search Strategy

To find relevant literature, several databases were searched, including PsycINFO, Family Studies Abstracts, ScienceDirect, and Google Scholar. When searching through these databases the following key terms were often used: parent-child relationship, attachment, determinants of parenting, parent(ing) programs, parent self efficacy, parent self confidence, emotion regulation, music therapy, social support, and community-based. To find current studies on a particular topic, the year of publication was limited to the range of 2005-present. The majority of sources referenced were electronic for ease of access. Typically, only peer reviewed articles were used, however for the research on PCMG, the search was expanded to include grey literature. Finally, in addition to searching through databases, many articles were found through the references of more seminal or review articles.

Theoretical Models for exploring Parent-Child Relationships

There are several models that help describe and theorize the parent child relationship. For the purposes of this thesis, which had a community-based research approach, an ecological systems theory was chosen to explore parent-child relationships. An ecological systems theory takes into consideration the whole environment in which parents and children are interacting and developing (Neal & Neal, 2013). Bronfenbrenner noted in his book, *The Ecology of Human Development,* that when studying development, one cannot ignore the "system properties and processes that affect and are affected by the behavior and development of the human being" and that "the principle main effects are likely to be interactions" (Bronfenbrenner, 1979, p. 37-38). Later, Bronfenbrenner (1993) would describe child development as something that is embedded and expressed in the child's environment. He proposed that there are four system levels of development that are used to explain how the environment impacts a child (see Figure 1 in appendix for a relevant example of the four systems). One such level is the most immediate to the child, the micro system, which includes the child's closest environment such as home and family. This is the level in which the parent-child interactions occur. However, the other levels are just as important as they influence not only the child, but also the parent. The meso system level, is the relationship between any two or more micro system environments. The Exo system levels include environments that the child does not occupy, but still have an impact on them, such as a parent's work place or social network. Finally, the macro system level includes the larger community the child and their family live in. This can include places and factors such as community services and culture. In later iterations of his theory, Bronfenbrenner started to emphasize the processes found between the persons and their contexts (system environments) through what he and his colleagues named, the Process-Person-Context-Time (PPCT) model (Rosa & Tudge, 2013). The adjusted theory stressed that, repeated, reciprocal interactions between a person and another person, object or context are the "engines of development" and within the micro-system are considered proximal processes (Bronfenbrenner & Morris, p. 822, 2006). The parent-child relationship would be a critical proximal process for the child's development as these interactions form the working model of attachment for children. Environments/systems that promote positive parent-child interactions should support child development and drive positive change for both the child and parent.

The current study primarily examines the influence one micro system (the PCMG program) has on another micro system (the parent child relationship) and the interactive processes that impact the people within these systems. The hypothesis being that the PCMG program influences the parents who attend, which translates into impacts on the parent-child relationship. Even though the PPCT model acknowledges that process between persons and contexts drive change and development, it does not provide a theoretical framework detailing what these processes entail. Therefore, attachment theory and Belsky's process model of parenting (2014) were used to provide insight to describe and understand the processes taking place in the program that impact the parent-child relationship. The present study focused primarily on one outcome for the child (secure attachment) and two determinants of parenting quality (self-efficacy and emotion regulation) in order to explore how the program impacts parent-child relationships. The determinants of parenting quality were taken from Belskys' process model which is described below. Through the theoretical models, it was hypothesized that the PCMG program positively influences parent characteristics (self- efficacy and emotion regulation) which then impacts the level of secure attachment a child has with the parent (see Figure 2 for conceptual model).

Attachment Theory

Belsky & Fearon (2008) explain that attachment theory describes the process in which an infant develops an internal working model of their relationship to the parent(s), through their everyday interactions with one another. These interactions emphasize the importance of a positive parent-child relationship and the factors that contribute to the quality of care that a parent can provide, including the influence the child has on the parent. Attachment theory owes much of its development to the work of Bowlby and Ainsworth beginning in the 1950s. Bowlby first acknowledged the importance of parent-child relationships in his report for the World Health organization, that an "infant and young child should experience a warm, intimate and continuous relationship between child and mother (or permanent mother substitute) in which both find satisfaction and enjoyment (Bowlby, 1951, p.13 as reviewed by Bretherton, 1992). Bowlby's attachment theory was influenced by his work in maternal separation and loss, and other theories such as cognitive, behaviorist, evolutionary psychology (Ainsworth, 2010). According to Bowlby, (1958) human infants display five basic instinctual attachment behaviors,

sucking, clinging, following, crying and smiling, that serve to strengthen the attachment to the primary caregiver (Bowlby, 1958). Later, Bowlby described more complex attachment behaviors being developed through interactions with the parent/primary caregiver. He suggested that infants form a working model of attachment that is based on the level and consistency of sensitivity and responsiveness from the parent and the quality of the parent-child relationship (Bowlby 1969). This working model is developed overtime, as infants/toddlers use their primary caregiver as base to explore their physical, emotional and relational environments. Interestingly, Bowlby also noted, in his report for the World Health Organization, the importance of a strong community support for parents to provide care to their children:

> Just as children are absolutely dependent on their parents for sustenance, so in all but the most primitive communities, are parents, especially their mothers, dependent on a greater society for economic provision. If a community values its children it must cherish their parents. (Bowlby, 1951, p. 84, as cited by Bretherton, 1992).

Prior to joining Bowlby's research team, Ainsworth completed her dissertation on the theory of infant/child security, which similar to Bowlby's attachment theory, was influenced by psychoanalytical and contemporary concepts of infant/child personality development (Ainsworth, 2010). After becoming absorbed in the theory and research of attachment, Ainsworth went on to conduct her own studies in Uganda and at John Hopkins University. Within her findings were the beginnings of observational behaviors of both mothers who responded sensitively to their child, and children who demonstrated styles of attachment (Bretherton, 1992). Future research by Ainsworth and colleagues explored, often through naturalistic observation, many mother-child interactions such as greetings, obedience, affection, etc. (see review Bretherton, 1992). From this work and the influence of her mentor, Blatz's who also studied security, Ainsworth developed the Strange Situation, a clinical, observational laboratory procedure that explores attachment behaviors of children and mothers while they interact with each other and then children's behaviours when separated from their mother. These attachment behaviors include the instinctual behaviours Bowlbly identified that infants use to communicate need and change the proximity to their parent, especially in times of distress or separation (Ainsworth, 1985). Building off the concept that infants/toddlers use their primary caregiver as a base for exploration, the strange situation observations led to the ability to identify

the strength of attachment behaviours in infants through the lens of security (Ainsworth, Blehar, Waters & Wall, 1978; Ainsworth, 1985).

Through her research with mothers, Ainsworth (1985) differentiated between secure and insecure attachment styles. Securely attached babies have developed the understanding that their mother is consistently responsive and available. The mother acts as a base for exploring new environments and if the infant/toddler is frightened or distressed they can be easily soothed and will soon return to exploring. Typically, a secure child will cry less, even during minor, everyday separations in the home, as they have learned that the mother will return and is most likely accessible if they need her. When the mother does return, the child will typically greet her more positively than an insecure child and if distressed by the separation, a secure child will easily be comforted by her (Ainsworth, 1985). Secure children have been discussed as confident and comfortable in both familiar and new environments, and will be able to cope with problems and new situations easily, especially when their mother is available to guide them (Mooney, 2010).

Insecure behavior was also determined based on an infants' reaction and behavior to being separated and reunited with their mother, and was identified by an increase in distressed behavior, resistance to being soothed, underlying anger towards the mother or outright avoidance. Ainsworth went on to classify insecure attachment into two primary categories: anxious/ambivalent and anxious/avoidant (Ainsworth, 1985). The anxious/ambivalent child has learned that their mother is inconsistently responsive and not often accessible (Mooney, 2010). They are wary of new environments and are distressed when separated from their mother as they are unsure if she will return. When the mother returns, the baby/toddler will seek proximity to her, but appear to be angry or will resist being soothed by her. The anxious/avoidant infant/toddler has found their experiences with their mother to be rejecting. They will avoid their mother after being separated as a defense mechanism to avoid being rejected. They appear to be unmoved by the presence or absence of their mother and will often treat strangers the same way they treat their mother or primary caregiver. They have learned that any communication of their needs will probably not be met with a sensitive response, so they will sometimes distract themselves with toys or other items in their immediate environment (Mooney, 2010). A fourth classification, disorganized attachment, has been used in the literature, but is rare, and often a product of severe abuse and neglect (Holmes & Farnfield, 2014).

The writing and research of Bowlby, Ainsworth and their colleagues highly influenced current infant and child development research today. However, this early research was often conducted in laboratory settings and is still waiting on longitudinal study results. It also has several gaps and criticisms not only in the measures, but also in future implications (Tarabulsy & Symons, 2016). These gaps included the relation between maternal sensitivity and infant attachment, later effects of attachment to child development outcomes, and the impacts on program and intervention development and evaluation.

Nevertheless, researchers continued to appreciate the importance of early parent-child relationships and have started to explore the gaps listed. The National Institute of Child Health and Human Development (NICHD) completed a very large, longitudinal study that explores child development and attachment theory. It used validated measures of attachment, including Ainsworth-Wittig Strange Situation, Attachment Q-sort and the Cassidy-Marvin Strange Situation (Thompson, 2008). The study found that early secure attachment helped predict the child's future social interactions with peers and emotion regulation (Thompson, 2008). Further, research has concluded that children with insecure attachment representations had poorer relationships with their teachers and lower peer competence skills (Rydell, Bohlin, & Thorell, 2005).

Thompson (2008) also found that quality of parenting practices can influence secure attachment even in poor or negative environments for children. Analysis of the data collected by the NICHD found that maternal sensitivity is a better predictor of secure attachment than the quality of child care. However, poor quality child care negatively impacted secure attachment when correlated with maternal insensitivity. This suggested that parent's behavior, in this case, maternal sensitivity can moderate the effects of an environment and influence attachment, yet at the same time, negative behaviours from the parent, such as emotional outbursts, inappropriate responses or not responding at all to the child, seem to enhance the negative effects of the environment. This supports a theory from Waters, Kondo-Ikemura, Posada, and Richters (1991) which proposes that many of the social outcomes of secure attachment such as, imitation, social learning, cooperation and compliance, derive from a harmonious parent-child relationship. A more recent study (Newton & Thompson, 2010) found through the literature that "warm and responsive parenting characterized by appropriate rules and structure are key for the

development of self-regulation" (p. 14). However, through a survey they found that parents often reported underestimating the emotional and psychological abilities of their infant and overestimating their toddler's ability to self-regulate. The researchers identified the need for parents to have a greater understanding of infants' and toddlers' developmental abilities when it comes to emotions and self-regulation. Parents who are more mindful and insightful of their own thoughts and emotions can help develop their children's self-regulation. But to do so, they need to have the warm and responsive parenting approaches, as mentioned above , that are based in useful knowledge, appropriate skills, and internal and external supports in order to successfully parent and respond to their children's needs.

In summary, attachment theory provides a framework to understand how positive parent-child relationships can form and the impacts it has on the child. Secure attachment has many benefits for the child and it is created through sensitive responses from the parent. Research has provided evidence of parenting approaches that promote secure attachment, such as warm, age appropriate and sensitive responses to the needs of the child. These approaches are influenced by several factors such as a parents' knowledge of what is appropriate and their own ability to regulate their responses. For the purposes of the present study, attachment theory is used to examine the impact the PCMG program has on children, measure the strength of the parent-child relationships and analyze the processes that promotes positive parent-child relationships.

Process Model Of Parenting

Belsky's process model of parenting (2014) was used to explain and measure process factors that are happening between the PCMG program and the parent-child relationship. This model places the parent at the centre and includes three categories of factors that determine the quality of parenting: characteristics of the parent (developmental history, psychological health and resources, personality, etc.); social influences (support and stress); and the child's characteristics. Of importance to this thesis is the evidence Belsky and Fearon (2008) found which suggests that parenting factors, such as psychological health and well-being of the parent, influence the processes of the parent-child relationship, typically by impacting the quality of care a child receives. This in turn will affect the attachment style of the child through reciprocal interactions and develop the parent-child relationship, for better or for worse. Belsky (2014) summarized several factors that contribute to the psychological characteristics of the parent and

for the purposes of this study, two are explored for the present study – self-efficacy and emotional regulation.

Parental Self-Efficacy: Self-efficacy is the belief in one's capabilities to perform tasks to an acceptable level that allows for influence over events in one's life (Sevigny & Loutzenhiser, 2009). The literature seems to connect two concepts when defining parental self-efficacy, 1) a belief in the ability to parent (Hess, Teti, & Hussey-Garder, 2004) and 2) the belief that the ability can positively influence the child or environment (Ardelt & Eccles, 2001). However, a consistent definition is hard to find, as other similar concepts such as competence, confidence and self-esteem are used both interchangeably and distinctively when studying parenting behaviors and child development outcomes.

Parental self-efficacy and parental competence are similar concepts and are sometimes used interchangeably in the literature (*Children of Parents with a Mental Illness*, n.d.; Crncec, Barneet & Matthey, 2008). However, some argue that parental self-efficacy is a belief or perception, and competence is a judgement that can be held by the parent or by others. To complicate the search for consistent concepts, some researchers make the distinction of who holds the judgement, while others do not (Jones & Prinz, 2005). Regardless of the distinction, research has found a strong association between these two concepts, indicating that the types of measures for parenting self-efficacy and competence are assessing similar behaviours and perceptions (Jones & Prinz, 2005). A final consideration when defining parental self-efficacy is satisfaction. Satisfaction is still a perception derived from the parent and seems to be quite intertwined, especially as a feedback loop, with parental self-efficacy, competence, confidence and/or self-esteem (Jones & Prinz, 2005). Considering all these definitions, the term and concept used for the current study is parental self-efficacy. It will be examined and defined as the parents' perceived level of competence in their parenting abilities when accomplishing a task that also influences the satisfaction they find in parenting.

Parental self-efficacy, has been associated with parenting quality, increase in positive parent-child interactions and more parental warmth and responsiveness to their child(ren) (Jones & Prinz, 2005; Mendel, Tomasello, & Nochajski, 2012). The literature makes connections between parent self-efficacy, and the reciprocal nature of the parent-child relationship. In other words, the great sense of accomplishment and satisfaction they have in interpreting, responding

and coping with parenting tasks, the better able they are to respond to the next task, and the next after that. This assertion is supported by a summary of the research by Jones and Prinz (2005), that shows higher levels of parental self-efficacy has positive impacts on the quality of parent-child interactions. Other research indicates that parents who perceive having low levels of parenting control will find it more difficult to deal with their child's behaviour and cope poorly with it (Mouton & Roskam, 2005). In a quasi-experimental design, Mouton and Roskam (2005), observed and surveyed 42 mothers of pre-school aged children. To manipulate the variable of self-efficacy, they gave some mothers positive feedback regarding their interactions with their child, while others received no feedback. Results showed that the positive feedback had an effect on their self-efficacy beliefs, and on the positive parenting and child behavior measures. Further research surveyed and observed mothers and their toddlers (aged 19 – 25 months old), using several measures of parental self-efficacy, parenting approaches, child development and child behaviour (Coleman & Karraker, 2003). They found associations between maternal self-efficacy beliefs and several child development and behavioral variables. Although a causal relationship was not found, the researchers found in their study, that maternal self-efficacy could explain 12% of the variance found in the children's behavioral variables (including avoidance of mother, affection towards mother, compliance, enthusiasm and negativity). Although a short time in the laboratory setting did not allow for a varied amount of child behaviour to be observed, one can still conclude that maternal self-efficacy is linked to child behaviour outcomes. In their review of the literature, Jones and Prinz (2005) found that high parental self-efficacy is related to using active coping strategies. Whereas, low parental self-efficacy has been associated with parental depression and learned helplessness, controlling parental behaviors, parental stress, and using passive coping strategies.

There are factors that influence parental self-efficacy including temperamentally difficult child(ren), child health problems, parental depression and lack of social support (Jones & Prinz, 2005; Verhage, Oosterman, & Schuengel, 2013). Studies have found relations between the parenting sense of competence and the social support system as well as parental well-being and the perceived difficulties with a child (Jones & Prinz, 2005; Hess, Teti, & Hussey-Garder, 2004). In a more recent study, researchers surveyed over 600 first-time pregnant women to determine the direction of effects between parental self-efficacy and perceived child temperament

(Verhage, et al., 2013). Their results contradicted previous research as they did not find perceived child temperament as a predictor of parental self-efficacy. However, they found a link between maternal mood and depression that could be a factor associated with temperament assessment and self-efficacy. To explore this further, a large study explored several factors that could predict maternal self-efficacy (Ngai, Chan, & Ip, 2010). The factors that the researchers explored were learned resourcefulness (ability to use adaptive coping strategies), social support, stress and depressive symptoms. First time mothers (n=184) were surveyed during pregnancy and six weeks postpartum. Using correlational statistics, the researchers found that the mother's sense of competence was positively related to learned resourcefulness and social support at pregnancy, while it negatively associated with stress and depression at pregnancy. Learned resourcefulness and depression were found to be predictive factors for maternal sense of competence six weeks post-partum. This study, although interesting, only examined these factors for maternal competence six weeks after birth. Stress and feelings of competence continue after six weeks, perhaps worsening if influential factors such as depression are not treated. However, another study found that positive self-efficacy can buffer against stress and has been linked to positive parent behavior and child functioning (Bloomfield & Kendall, 2012). In another study, researchers found that information support and appraisal from family members and healthcare professionals increased a mother's sense of competence (Warren, 2005). The results fit well with Bandura's (1989, as reviewed by Ngai, et al., 2010) theory that watching other parents can inform a new mother's expectations for the role of motherhood, and her own perceptions of her performance as a mother. And more importantly, that appraisal and feedback from others can influence a mother's sense of competence and satisfaction.

In summary, research indicates strong associations between parent self-efficacy and several factors including parent coping strategies, perceived child behavior, sensitive responsiveness to a child's distress, and ultimately the parent-child relationship. If a parent whose self-efficacy is low, perceives their child's behavior as more difficult and also has less coping strategies, this will impact the way they interact with their child and their parent-child relationship. This will also impact the child's attachment to the parent, as research has shown that self-efficacy is linked to sensitive responsiveness which is known to increase attachment security (Jones & Prinz, 2005; Thompson, 2008) In addition, social support in the form of

family, friends and/or experts may also help increase parent self-efficacy, and mitigate other negative influencing factors such as depression and child temperament.

Emotional Regulation: Emotion self-regulation as defined early by Thompson (1994) "consists of the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals" (p. 27-28). Seminal work from Cassidy (1994) summarized that parents who have strong emotional regulation are better positioned to have a child with secure attachment due to three important influential factors. First, the infants will use the response they receive from caregivers to understand their working model of attachment and how to express emotions with that caregiver. Second, the caregiver's own emotional response and regulation will impact how the infant understands emotions and the attachment to that caregiver. The ability to express both negative and positive emotions are important for an infant's emotional development and socialization (Pauli-Pott & Mertesacker, 2009). It also gives infants and toddlers appropriate emotional cues that aid in their development and attachment to the caregiver. Finally, caregivers are influenced by their own working model of attachment based on their childhood experiences. These childhood experiences could include having emotional needs met as a child which will contribute to a caregiver's ability to appropriately respond emotionally to her infant (Leerkes & Crockenberg, 2006). All three factors contribute to the parent's response to their child's needs which in turn establishes the working model of attachment for that child.

Research has demonstrated the reciprocal relationship between emotion regulation and attachment for both the parent and the child. Through her review, Cassidy (1994) found that both parents and children who are open and flexible with their emotional expression (meaning they express their emotions at appropriate times and levels), were more likely to be classified as secure (infants) and autonomous (adults). This is because sensitive parental response is related to secure attachment, which includes the socialization of appropriate emotional expression (Thompson, 2008). Another study examined how adolescent mothers respond to their child's affect based on their own ability to accept and express emotions (DeOliveira, Moran & Pederson, 2005). Mothers who were more aware and confident in their own emotion regulation tended to be more responsive to their child's emotions. Although their responsiveness to their children was self-reported, it was in comparison to mothers who were less likely to identify and respond to

their child's affect due to restricting or ignoring their own emotions. Similar results were found in Leerkes and Crockenberg's (2006) study where mothers, whose emotional needs were met as children, had more positive feelings of self and were more confident in their own emotional capacities. During their longitudinal study, they found through various questionnaires and interviews, that mothers' childhood experiences (including attachment security) were predictive of how they perceived, interpreted and responded to their infants' distress cues. In this study, mothers who did not have their needs met were less confident, less empathic, and experienced more negative emotions in response to their infant's distress.

Being competent in regulating emotions (often through reflection) and supporting a baby's emotion regulation is an important psychological resource when it comes to establishing a secure attachment between parent and child. As noted above, mothers who are better able to monitor and regulate their emotions are more sensitive to their infant's needs and thus provide a more secure base for their child. Infants are aware and can feel a variety of feelings from an early age such as joy, curiosity, anger, sadness and fear (Newton & Thompson, 2010). Children's behaviors, feelings, and self-conscious emotions such as guilt and pride are shaped by their parents' reaction to them at an early age. They use these emotions later to explore their environments. Infants exposed to persistent negative environments (sadness, anger, depression) have been found to have relational and affective problems as children. One study looked at negative emotional expression of mothers and insecure infants. The researchers found that maternal anxiety and anger were related to resistant and avoidant attachment styles respectively (Leerkes, Parade & Gudmundson, 2011). These recent studies support the earlier notion made that maternal emotions can be predictors of attachment security (Biringen, 2000). Interventions that can help mitigate a persistent negative environment, such as a mother who suffers from depression, are ones that target the mother-child relationship and encourages the mothers to be more sensitive and to interact with her baby in a more positive way (Newton & Thompson, 2010).

One such intervention, *Mothers and Toddlers*, focuses on the mother's ability to reflect on her and her child's emotions. This program targets mothers who have substance abuse problems (Suchman, et al., 2011). The researchers postulated that these mothers would have difficulty identifying and responding to their infant's emotions due to their own traumatic

attachment experiences and limited reflective functioning (RF) when it comes to understanding emotions and behavior. Reflective functioning, a type of emotion regulation strategy, is the capacity to understand how ones intentions and emotions effect their behavior. The program focuses on the mother's own emotional and psychological state and then on the mother-toddler relationship. It aims to increase reflective functioning in the mothers so that they are better able to respond sensitively to their child. Using assessment interviews and recorded observations the researchers found that mothers showed sustained improvement for self-reflective functioning and care giving behavior. Although they did not find an increase in the mother's reflective functioning with her child's emotions, they suggested that starting with self-reflective functioning for those suffering from substance abuse is an important first step to enhancing the mother-child relationship and more secure attachment patterns (Suchman, et al., 2011).

Parents who lack the ability to successfully regulate their own emotions can affect the attachment their children have with them. Infants who minimize their emotional expression tend to be classified as insecure/avoidant. Mothers of avoidant babies have been found to be dismissive (AAI classification), show a more restrictive range of emotion and/or to be overly involved to the point where the infant may regulate distance by suppressing emotions (Leerkes, et al., 2011). DeOliveira, et al. (2005) found that dismissive adolescent mothers were uncomfortable and less aware of their own emotions. They tended to reflect on feelings of sadness and fear. This can affect the mother's ability to mirror and respond to her infant's emotions in sensitive ways (DeLoiveira, Bailey, Moran & Pederson, 2004). Infants classified as insecure/ambivalent tend to heighten their emotional responses as a strategy to gain the attention of an unavailable and inconsistent caregiver. Preoccupied parents (AAI classification), those who are inconsistently responsive to their child, tend to focus disjointedly on relationships that may produce many negative emotions (Cassidy, 1994). Lengthy exposure to negative emotions can distress an infant and can lead to insecure/ambivalent attachment (Newton &Thompson, 2010).

In summary there is a close connection between parent emotion regulation and attachment level in a child. A parent's ability to monitor, reflect and adjust their own emotions helps develop their child's inner working model of attachment and relationships as they learn and adjust to various responses from their parent – whether they are emotionally driven or not. Emotion regulation, or the lack of, is a greater concern when persistent negative responses are

being expressed in the parent-child relationship, as this can negatively influence attachment styles and has been linked to insecure attachment. Interventions that teach parents strategies to help regulate their emotions sets them up to be more sensitively responsive to their child and help develop secure attachment within their relationship with each other.

Interventions that Promote Positive Parent-Child Relationships

In an effort to promote positive parent-child relationships, many parenting programs/interventions, focus on increasing several factors that support secure attachment in children. Interventions, like the PCMG program, focus on modeling positive parenting interactions, including promoting sensitive parenting behaviors, can enhance the parent-child relationship and help ensure early secure attachment (Benoit, 1999-2000; Berlin, et al., (2008). Attachment based programing and interventions have been applied in several ways and have been found to be effective in increasing maternal sensitivity, attachment security, and reduced attachment disorganization (see review in Tarabulsy & Symons, 2016). However, these studies are mainly applicable to a clinical setting, aimed at vulnerable families and tend to be quite intensive interventions including one on one coaching from experts such as social workers and therapists.

One such intensive intervention is the Parent-Child Intervention Therapy (PCIT). Parents whose children (age 2-7) are experiencing behavioral problems attend 14 – 20, one on one sessions with a coach (typically a clinician or therapist) who discusses skills with the parents. Afterwards, the coach will observe the parent interactions with their child and provide live feedback. Parents are also given homework and their skills are assessed through further observation. Often parents are taught communication and behavior management skills. Allen, Timmer and Urquiza (2014), describe and examine the impact of PCIT on families with adoptive children using an attachment theory approach. They assessed the parent-child dyad at the beginning, middle and end of treatment using survey and observational data. The observational results showed that parents at the end of the intervention used less negative communication skills and more positive attention skills. The survey results indicated that parents experienced less stress at the end of the sessions and children's behavior problems decreased. Both positive communication and a lack of stress from the parent could have had an encouraging effect on the parent-child relationship and secure attachment (Pauli-Pott & Mertesacker, 2009; Thompson,

2008) and may be indicative of the decrease in the children's behavior problems. Although this program had great results, it should be noted that 84.5% of parents in their sample completed the program, however, completion was determined by the therapist based assessments. So, unlike other programs that finish after a predetermined amount of sessions, participants of PCIT are 'terminated" between 14-20 sessions, with the average in this study being 17.26 sessions. This program also has the luxury of continuing the intervention until changes are observed, whereas, most programs are only offered for a short amount of time, giving PCIT the advantage of almost always finding immediate positive results in participants of the program. Therefore, with no comparison group or follow-up assessments, it is difficult to attribute the outcomes directly to the program.

Intensive, expert driven, interventions, like PCIT, that are aimed at more clinical families are important but tend to cost more, take up more time, and do not always leave the families with social supports in place. This is where community-based programming, which tends to be more cost effective and preventative in nature, can still be influential to positive parent-child relationships (Carroll, 2005). One example, *Ready, Set, Parent!: Infants and Toddlers*, is a community-based parenting program similar to PCMG that was developed to help increase parenting knowledge through adult education and social support (Mendel, et al., 2012). It is a program aimed at parents with risk factors such as low birth weight, poverty, less than high school education, exposure to crime and violence, and recent trouble with the law. Parents attend up to ten sessions, each covering a different topic related to parenting, where they are given information and guided through a discussion. This approach is meant to engage participants in the educational materials, and let each session be guided by the group's needs. Researchers had the parents of the program and the comparison group fill out questionnaires that assessed their demographics, self-efficacy, and family literacy before the program and six months after the program. (Mendel, et al., 2012). The results found significant differences in pre- and post-tests within the program group on the maternal efficacy scale. No significant differences were found between the program and the comparison group on the same scale. However, the demographic data indicated larger risk factors for those in the program, indicating the initial knowledge starting point for the program group may be why they had greater changes in scores than the comparison group. Of course, a randomly assigned program and comparison group could have

altered the results, however, as this was a community based program this was probably not feasible. Ultimately, the program did what it intended to do, increase parents' knowledge so they can respond to their children's needs, however, there are other methods of teaching parents that could produce similar or additional outcomes for both the parent and child.

Another similar educational, group program, *Circle of Security*, found positive outcomes for both the parent and child. *Circle of Security* is a twenty week educational program that aims to improve child attachment security by enhancing parents' relational abilities through group education, and video coaching. This is a well researched program (Circle of Security International, 2017) that shows a lot of promise in reducing insecure attachment in children in high risk families. Some of the more recent research findings indicate that it improves parents' emotional functioning and perceived parenting capacity (Huber, McMahon, Sweller, 2016). Findings thus far suggest that there are significant positive changes from pre- to post-test in variables such as sensitive parenting and secure attachment in children. However, only recently have results come out from studies employing control or comparison groups. One such study, using a randomized control trial, specifically examined whether increases to parental sensitivity and reduction of insecure children can be attributed to the program (Cassidy, Brett, Gross, Stern, Martin, Mohr, & Woodbouse, 2017). Unfortunately, this study did not find any significant changes in attachment security of children whose parents attended the program. This difference from previous studies may be due to different ways the program is implemented in various research studies. More positive results were found when the researchers discovered that the program group reported less unsupportive responses to a child's distress than those in a control group, indicating that the program influences parental sensitivity.

Many of the programs described above have the clear intent of teaching parents specific parenting practices, through either intensive therapy or classroom settings. The PCMG program, in contrast, uses songs, stories and rhymes to facilitate positive parenting teachings and practices. Music therapy, which could be used to describe the teaching approach the PCMG program carries out, is an intervention strategy that has caught the attention of attachment and family researchers, especially within interventions for vulnerable families (Edwards 2011). In her review of the literature, Edwards (2011) considers music therapy as:

a process of developing a relationship with a caregiver/dyad in order to support, develop, and extend their skills in using musical and music-like interactions including vocal improvisation, chants, lullabies, songs and rhymes, to promote and enhance the sensitivity and mutual co-regulation between infant and caregiver, in order to create the optimal environment for secure attachment to be fostered. (p. 7)

Edwards (2011) goes on to describe that, "A qualified music therapist can work in gentle non-intrusive ways to help parents and their infants discover and strengthen their capacity for relating through the musical play that is part of the usual repertoire of parent-infant interactions" (p. 14).

Further research has found connections between rhymes, lullabies, music and stories to parent-child relationships, and attachment (Edwards, 2011). Research findings indicate that maternal singing can help moderate infant arousal, sustain attention, and coordinate emotions between infant and mother (Shenfield, Trehub & Nakata, 2003; Nakata & Trehub, 2004). Songs are typically accompanied by movement or activities and are most often used when playing or trying to put the baby to sleep (Burrell, 2011). Berry (2001) indicated that "Rhymes are a pleasurable way for parents to relate to their children and they serve to cement the parent-child relationship" (p.1). Repeated rhymes help cement memories of the caregiver and interactions with them which helps form attachments. They also give both the child and parent opportunities to express emotions and respond to them (Berry, 2001).

In another study the researchers investigated the relation between maternal attachment representations and emotional expressiveness when they sang to their distressed and non-distressed infants (Milligan, Atkinson, Trehub, Benoit, & Poulton, 2003). A significant finding was with dismissive mothers whose playfulness and animations during their singing did not differ whether they were singing to a distressed or non-distressed infant. This is in line with other research (Cassidy, 1994), which summarizes that dismissive mothers are less attuned to their infant's negative emotions and therefore would not respond to their distress (perhaps by singing) any differently than if they were not in distress. Autonomous mothers were able to be responsive and flexible to their infant's needs through playfulness and voice quality in their singing (Milligan, et al., 2003). The authors conclude that mothers who use singing to sensitively respond to their infants, especially when in distress, may affect their sense of security and thus their attachment to the mother. Within the case studies highlighted by MacKinlay and Baker

(2005), the mothers reported that lullabies not only helped soothe, calm and put their babies to sleep but it also relaxed the mothers and eased their anxiety.

There are other programs and interventions that support the notion of using rhymes, songs and stories to teach parenting behaviors and enhance the parent-child relationship. Many reports include first-time mothers participating in music-based programs and find that mothers use songs more often to relax their infants and that there is a mutual emotional benefit to both mother and child (Baker & MacKinlay, 2006). One study found after five weeks, mothers in the program group had increased their knowledge of age appropriate songs and increased the frequency of using music and movement with their child (Vlismas & Bowes, 1999). The research found reports indicating that when interactions are positive there is an increase in satisfaction of the parent-child relationship. The researchers, therefore concluded that teaching mothers age-appropriate music and movement to use with their infants can increase the mother's responsiveness which leads to beneficial interactions between mother and child. Another study looked at the benefits of mothers singing lullabies to their infants and gave them the knowledge and skills to use lullabies effectively. The researchers completed home visits where they interviewed the mothers and then provided them with a tailored education session (Baker & MacKinlay, 2006). The researchers found that mothers choose certain lullabies based on their baby's needs, characteristics of the lullaby or their own needs. These identified needs included the mother's own enjoyment and soothing effect the lullaby had on her. The lullaby's soothing effect on the mothers helped minimize anxiety and guilt. The program afforded mothers the awareness that singing can allow them the time to focus on their baby and the sense of being a "good enough mother". (Baker & MacKinlay, 2006, p. 158.). Both of the studies increased mothers' knowledge and use of age appropriate songs, which seemed to increase their enjoyment in interacting with their children. However, these are more evaluative results that only indicate that the mothers retained what they were taught. It is unclear if that knowledge translated into observable change in behaviours in both the mother and child. Regardless, the PCMG program very much promotes the idea of choosing songs and stories that both parent and child enjoy, as the songs are not just for baby, but they can help the parent as well.

Other studies in similar programs, found behavioural outcomes for both children and parents. One such program is the *Sing & Grow* music program, which is based in attachment

theory, interaction theory, and behavioral parent training. The program targets parenting behaviors such as expression of affection and emotional responsiveness to their children through weekly sessions where parents and children participate in musical activities together. Pre- and post-tests showed an improvement in parenting behaviors such as less irritability and more observed sensitivity and also an increase in parent mental health (Nicholson, Berthelsen, Abad, Williams & Bradley, 2008). The researchers noted that even though this program was rooted in parenting behavior training, because it is music based, it provides a safe, non-threatening and respectful environment where parents can learn parenting behaviors that enhance their relationships with their children. Another study randomly assigned parent-child dyads to a treatment group and a control group (Jacobsen, McKinney, & Holck, 2014). They completed baseline assessments and then further assessments throughout and after the treatment. Results found that music therapy significantly improved parenting competencies and parent-child interactions. The therapy also improved the parents perceived ability to communicate with their child and reduced the degree of stress perceived by parents. These results are strikingly similar to classroom based programs such as *Ready, Set, Parent!* and *Circle of Security* suggesting that various teaching methods can still produce positive parent-child outcomes.

In summary, these studies provide more insight into the behaviour changes associated with attachment based parenting programs that use more naturalistic, group settings, as opposed to classroom style, to teach positive parenting approaches. A more focused look at programs that incorporate music therapy have found promising results in promoting positive parent-child relationships, secure attachment and positive child development outcomes. The combination of naturalistic group setting using music theory is very similar to the program theory of Parent-Child Mother Goose (Scharfe, 2011).

Parent-Child Mother Goose Program Research

A few studies and published evaluations have looked at the effectiveness of the Parent-Child Mother Goose program. First, an evaluation of PCMG programs in Toronto found that 83% of participants continued to use the songs, rhymes and stories learned during the program at home (as cited by Janzen, 2001). This continued use is of importance as they also found, through observation, that an ease or calmness comes over all participants, including the children and infants, when a lullaby is sung during the program. If this practice is carried home, similar

emotion regulation results may be found that can help promote positive parent-child interactions and secure attachment. In addition to retaining the songs, rhymes and stories, families of a Vancouver based evaluation shared stories of feeling more connected to their community, a sense of support, and found interactions with each other enjoyable (Formosa, et al., 2003). Although not connected to their evaluation, according to other research, this sense of social and community support and positive interactions could have influenced the parenting approaches in a positive way (Crittenden, 1985; Leerkes & Crockenberg, 2006).

In addition to evaluation data, more rigorous research found that parents felt that they learned knowledge and skills that improved their interactions with their children; meeting with other parents made them feel supported in their parenting (Carroll, 2005). Through interviewing parents who participated in the program, Carroll (2005) wanted to determine the program's effects on parents perceptions of their parenting practices and what they found most useful in promoting positive parenting approaches. Eleven parents were interviewed (ten mothers and one father) and the transcripts of their interview were analyzed. Participants indicated that they thought the PCMG program increased their confidence to be aware of, and respond more effectively, to their child(ren)'s behavior, which as the research above has indicated, is a factor that influences secure attachment (Thompson, 2008). Another thesis, using a case study design, explored how infant-directed singing impacts the parent-child relationship and explored other impacts the PCMG program had on the lives of participants (Weis, 2006). The results reiterated some of the benefits proposed by the program, including providing social support and increasing knowledge in parenting skills. The researcher also found that infant-directed singing can serve as a strategy for mothers under stress and that it could positively impact their own emotions. This provides support to one of the hypotheses of the current study that the PCMG program promotes emotion regulation in parents which in turn can also influence positive parent-child relationships and secure attachment.

Other studies and evaluations have more specifically looked at language skills and other child development outcomes which can influence the parent-child relationship. A Canadian based evaluation of early language and cognitive development found that children involved in the PCMG program showed significant increases in speech and social development (Martin, Cohen, Nerlich, & Heinz, 2004). However, there were no significant differences found in

language development between the children in the PCMG program and the comparison group children who attended a different child care centre. The evaluation project in Vancouver found significant gains in social and symbolic language development in children (Formosa, et al., 2003). The results also indicated that the program helped identify children with language and developmental challenges, who were then referred to the appropriate support service. The most recent study from Terrett, et al. (2012) found that the program improves language skills, specifically expressive language, in children. They also found that the program has a positive impact on parent's perceptions of their child's demandingness, suggesting that it can influence the parent-child relationship in a positive way if parents find their children to be less demanding. Although child outcomes were not a focus of the present study, it is important to note the reciprocal nature of parent-child relationships and how a child can influence the relationship and thus their level of security with their parent. Even in the case of the Terrett, et al. (2012) study, the researchers suspected that the positive impacts to a child's language skills and to the parents reaction to their child's skills, have a reciprocal positive effect on the parent-child relationship.

The above PCMG literature either explored the impacts of the program through the lens of attachment theory using only qualitative methods; or, the research examined other impacts of the program such as child literacy development, using either qualitative and quantitative methods. None of these studies explored attachment security classifications, although many proposed that the reported impacts of the program could influence attachment styles in children (Carroll, 2005; Weis, 2006; Formosa, et al., 2003). The qualitative studies and evaluations found that from a participant's perspective, the program increases their knowledge, sense of competence or self-efficacy, parenting strategies, social support, and in some cases, may reduce stress in parents.

The only study to date, that examined attachment classification in the participants of the PCMG program, and examined parenting factors quantitatively, was published by Scharfe (2011). This study, which has most influenced the current study, measures parental attachment security levels, their perceived security levels of their child(ren) and their sense of parenting competence. Parents who participated in the PCMG program in Toronto, Canada, and those on a waiting list, were assessed at the start of the 10-week program (T1), at the end (ten weeks later – T2) and six months after the program finished (T3). Scharfe surveyed the parents using a

Relationship Scales Questionnaire (Bartholomew & Horowitz, 1991, cited in Scharfe, 2011), the parenting sense of Competences Scale (Johnson & Mash, 1989), and developed her own child attachment security questionnaire based on the Waters & Deane (1985) Attachment Q-sort. The study gathered a large amount of participant data, (considering the high drop off rates from T1 to T3); the study started with 310 mothers and finished with 140, 42 of which were waitlisted participants. The results found in this study were promising. Scharfe (2011), using the perceived child's attachment scores cut-offs, placed children in either secure or insecure categories. She found a significant change in children's attachment categories between T1 and T3 for program group participants and not for the comparison group, indicating that the program participants were more likely to see a change in level of security in their children than waitlist participants. The study, although it focuses on the child's attachment, examined two aspects of parenting that can influence a child's attachment security, their own sense of competence as a parent and their adult attachment style. There were no significant changes found in adult attachment scores between T1, T2 and T3 for either program or waitlist participants. However, the study found that mothers who completed the program, after six months, reported higher levels of parenting self-efficacy than those on a waitlist. It was interesting that the study found significant results six months after the program. This can be interpreted a few ways: that the program has a positive, lasting influence on families; but also, that researchers may not see immediate results right after the program. In terms of limitations and future research, all measurements employed self-report methods and the study only examined a few aspects of parenting that can influence attachment.

Summary

As mentioned above, Scharfe's (2011) research influenced this current study because it was recognized that more could be explored in terms of how PCMG impacts participants and influences attachment. To date, the literature indicates that the program has an impact on both the parent and the child. Parents who participate in the program have reported increases to their parenting knowledge, their sense of competence and self-efficacy and an increased ability to respond appropriately to their children's behaviors. They also express that the program provides them with social support and more connection to their community. Other outcomes for children include positive impacts to their social and language development. Scharfe (2011), however, was

the only one to measure attachment, from which she found that the program seems to increase the likelihood of children forming secure attachments to their parents over time.

The current study aims to add to the findings of the PCMG research by hopefully replicating some of the results found in previous research. In addition, the study explores other factors that might contribute to the program's impacts on the parent-child relationship. This study hypothesizes that the PCMG program is successful in promoting positive parent-child relationships by providing parenting education, modelling positive parent-child interactions, and facilitating access to social support systems. It is the intent of this research study to explore how these program processes impact the parent's self-efficacy, promote emotion regulation and teaches parents to respond appropriately to their child's needs, thus enhancing the parent-child relationships and increasing the chance of the child forming a secure attachment to the parent.

Chapter 3 - Methodology

Introduction

Purpose: The following thesis investigated the impact of a parenting program "Parent-Child Mother Goose" (PCMG) on parent-child relationships. In particular, the study aimed to examine the effectiveness of the Parent-Child Mother Goose program on promoting secure attachment in infants/children, fostering emotion regulation in parents, and contributing to parent self-efficacy.

Community-Based Research Design (CBR): CBR is an approach that aims to involve community members and partners as more than just participants in the research. It addresses the needs of the community, organization and/or program, aspires to make improvements in programs, policy, and the community, and benefits all partners (Wallerstein & Duran, 2006). For example, from her interviews and observations, Flicker (2008) found that community partners/service providers reported that the community-based research armed them with evidence for their program and gave them immediate feedback that they then incorporated into their program. Reviews of other studies have found similar results where community partners have found the dissemination of results informed practice and spurred on other projects or dialogues important to the community (Minkler, 2005). However, Flicker (2008) also noted that these benefits come with a cost to community partners, most of which is the human resources cost to designing and implementing the research. Community organizations, especially not-for-profit ones, are already low on funds and human resource, so any additional work or costs associated with a project come at a much higher price. This can possibly create an interesting or tense dynamic when the research results do not reflect the expectations of the community who has invested so much. However, Flicker (2008) noted regardless of the results, often community partners garner a sense of empowerment through the research process. Some even felt their new knowledge and skills provided them with a greater ability to apply for additional research and program funding.

Since CBR involves community members and partners throughout the research process, it enables the researchers to develop tools and methods that are culturally sensitive to the community and organizations and therefore help ensure that the results are more relevant and useful (Minkler, 2005; Levin-Rozalis, 2003; Gardner 2003). Even more interesting is that

academics have reported the feeling of gratitude at being able to explore their passion directly with those they are studying or who are working in their field of interest (Flicker, 2008). Other benefits as outlined by Minkler's (2005) review of CBR approaches include: the design of appropriate research questions that are relevant to the community; the improvement of informed consent, either through greater access to language translators, or through creative and appropriate ways to educate the community. In addition, the increase in trust aids in participant recruitment and retention, while the community partners help increase the accuracy of the findings by interpreting the results from a culturally sensitive lens.

The collaboration between researcher and community partners, as will be described throughout this chapter, are in line with many other community based research designs, where there are varying levels of involvement from community partners with the intent of designing a relevant research study to benefit both the community and academia. The purpose of partnering with Fort Saskatchewan Families First Society (FSFFS) was to help ensure that the research study and subsequent measurements were relevant, appropriate and applicable to the community setting, in addition to having the rigor and objectivity the researcher could bring to the project. It was also important to employ community-based research (CBR) techniques, such as asking for support from the facilitators of the PCMG program, as they not only provided their perspective of the program as research participants, but also had the opportunity to support the data collection from program participants. They were able to establish trust between the researcher and program participants which helped with recruitment and retention.

Community Context: Fort Saskatchewan Families First Society is a not for profit organization, that was established in 1996, that "serves families through early childhood development, parenting programs and family support." (Fort Saskatchewan Families First Society, n.d.). In 2015-2016 reporting year, FSFFS served over 950 families through their programs and services, 113 of those families participated in the PCMG program (Families First Society Fort Saskatchewan 2015-2016 Annual Report). Their PCMG is currently funded by community partners, including the Government of Alberta.

The Program: The PCMG program consists of 10 weekly, hour long sessions, hosted by two trained, program facilitators. During these sessions, the facilitators teach, through oral repetition, age appropriate rhymes, stories, and songs to small groups of parents and caregivers

with their babies or young children. Various activities accompany the teachings and the facilitators provide a relaxed, playful setting. Child minders help keep toddlers safe as they are welcome to explore and play while their parent or caregiver continues to learn with the facilitator. A follow-up phone call to the program participants is made every week by the facilitators to discuss any questions or concerns and remind them of the next session.

Research Initiation: The Executive Director of Fort Saskatchewan Families First Society (FSFFS) reached out to the Human Ecology Department for research support on their Parent Child Mother Goose program. At that time Dr. Berna Skrypnek agreed to collaborate with the executive director and found, through reviewing the literature, program observation, and anecdotal evidence, that the Parent Child Mother Goose program promotes strong family relationships, including secure parent-child attachment. Through their work together, they hypothesized that the program facilitates this by increasing parental confidence and emotion regulation skills, and by building strong social networks. Due to time and funding constraints, they were unable to test these hypotheses with their existing qualitative evaluation data or any quantitative data.

I met with the Executive Director of FSFFS in 2012 and discussed research options. Families First (FSFFS) invited me to participate in the PCMG two day training. The training is very similar to the program, where they teach many of the stories, rhymes and songs through slow repetition while giving each participant many opportunities to practice leading and teaching. Participants of the training program receive several resources, including forms and instructions on how to set up and budget for the program in their community. Those conducting the training often used several examples, from their own experience as facilitators, to illustrate different ways of teaching and identified any stumbling points a facilitator may come up against while hosting the program. After the program training, I attended several PCMG classes for both the infant and toddler groups. I observed a first week session, a mid-program session and a last week session to help ensure that I understood how the program worked within this community.

Potential Biases and Assumptions

Several aspects of my own personal experience may have impacted or influenced this study. One, that I was keenly aware of throughout most of the data collection and community engagement work, was that I am not a mother. I have worked with school aged children and am

close to family that have had small children, but I do not have any experience with taking care of or parenting an infant or toddler on a daily basis. I would not consider this a limitation, if anything I feel that it enhanced my inquiry into understanding the experience of parents as I had little to no personal experience to work from. However, I do believe it created a unique, but not troublesome trust issue with some participants. I believe some participants may have been skeptical of my ability to interpret the results as I was not a parent, and I was also "some researcher" who has a set of questions that could not really capture the full parental experience. In fact, some participants would add comments on their questionnaire to explain the answers they provided. What I believe helped with my credibility with participants was my connection to the PCMG program. I developed a good relationship with most of the facilitators and the program coordinator all of whom would often help explain to potential participants the purpose of the study and the reason for my presence at the session.

While attempting to build trust through the PCMG facilitators and FSFFS, I attended several program sessions, Annual General Meetings for FSFFS, and their opening of their new offices. As this relationship grew, and my understanding of the philosophy of PCMG became more clear, I began to incorporate my learnings into both my research and personal life. I enjoyed practicing the songs and stories I learned from the program with younger members of my family. As for the research project, I believe being involved in the program has had several effects. First, as is the practice with community based research, this involvement allowed the design of the research questions, analysis and knowledge dissemination to reflect the language, understanding and needs of FSFFS. I also learned that a key component of PCMG is that it follows a strengths based approach to supporting families, where the program is not about teaching families the "right way" but to support them in enhancing their own skills and learning new ones that fit their needs. This philosophy focused the efforts of the research to explore the positive effects of the program, possibly at the expense of examining where the program can improve. Although, I applied an objective lens to the analysis of the results, they still offer only a small picture of the influence the program has, both positive and negative.

Methods: This study used both qualitative and quantitative approaches to answer the research questions. The qualitative appraoch employed a few observations of the program, program training, and the Fort Saskatchewan Families First Society to best understand how the

program works and the community context in which it is hosted in. Program materials were also analyzed for similar purposes. Finally, focus groups with program facilitators were used to answer the research questions. The quantitative approach employed the use of a pre- and post-survey that was made up of a demographic survey and four questionnaires related to the research questions. By allowing multiple perspectives in designing the study and flexibility beyond rigid measures, a mixed methods design often compliments community-based or participatory research techniques (Creswell, 2009; Mertens, 2005). This is especially true of this research design as the qualitative methods were used to help understand the unique context of the program and develop the quantitative measures. According to Greene, Carcelli and Graham (1989), mixed methods can serve several purposes including developmental design and complimentary measures, both of which were used in this study. By using mixed methods, I also attempted to reduce the possible threats to validity and reduce any inherent bias (for example, research confirmation bias or social desirability bias) within each method, as is found in reviews of mixed methods studies (Planko Clark & Creswell, 2008).

Qualitative Methods

Observations and Program Material Analysis

Purpose: The primary purpose of employing observation methods and written material analysis was to better understand the program, through the context of the community setting (Mayan, 2009). Interaction with the agency, FSFFS, and the community that hosted the PCMG program, was not only necessary for community-based research, but was also valuable in developing the research questions and methods for the study.

Procedure: As a way to understand the community context in which the program is hosted, an ethnographic approach was used (Mayan, 2009). Observations were conducted when attending PCMG classes, both as an observer in Fall 2012 and later during data collection from program participants from January 2015 – April 2016. Notes were often taken during or after these classes. I also communicated some of my observations with my supervisor at the time, where we reflected on how the research study could influence and/or impact the community setting and vice versa.

In addition to observations, a document analysis was conducted by analysing the program materials and FSFFS reports for the purpose of understanding the program and answering the

research question(s). The following were the documents that FSFFS shared for the purposes of this analysis:

- Program training materials
- PCMG evaluation forms
- PCMG parent comments from 2010 evaluation
- Family Literary Initiative Fund Annual Report
- Facilitator tools and templates (ex. phone call tracking sheet)

Other documents were gathered from the internet, either on the FSFF website or the national PCMG website. Appendix III provides links to materials and websites that are publicly available. Materials listed above that are not linked in the appendix were either under copyright (training materials), internal organization documents (tools and templates) or were confidential (evaluation data).

Analysis: The field notes and program materials, were analyzed using initial and focused coding, which is a method of grounded theory (Thornberg & Charmaz, 2014). The initial coding goes through all the data, in this case, the field notes and the program materials, to analyze it line by line and interpret the data using short codes. Using those codes, some main or significant themes can emerge. In the program materials and observational notes, the significant themes were identified as anything coded as a program outcome or an action impacting someone or something due to the program. In addition to coding for outcomes, anytime the materials indicated the program had an impact or outcome, it was coded by interpreting who or what the outcome was impacting. This focused coding resulted in grouping outcomes together, based on whether or not the program outcome was impacting the parent/care giver, the child, or the parent-child relationship. Further groupings of similar outcomes eventually resulted in a shortened list of program outcomes for parents, the child, and parent-child relationships (see Table1 in appendix). This list of outcomes was presented to the FSFFS Executive Director and PCMG coordinator to ensure that all outcomes were captured, and were accurate and relevant to their program and community. It was important to articulate the outcomes as they were used to identify the focus of the research study based on the community members' interest and the feasibility of measuring such an outcome. For example, the executive director and program coordinator were more interested in looking at the parent-child relationship as it relates to

attachment theory, rather than outcomes for children (such as literacy skills) as previous research has done. This list, more importantly, helped guide the search for and development of appropriate quantitative measures.

Focus Groups

Purpose: To help answer the study's research questions, a focus group was conducted with the program facilitators. A focus group gathers together approximately six to twelve people to discuss a specific topic. Groups are facilitated, typically by the researcher, who carefully plans out the discussion to encourage group members to share their thoughts, opinions, experiences and reaction to the topic (Guest, Namey, & Mitchell, 2013). The use of focus groups was the method of choice as it allowed several research participants to share and compare their experiences with the program. Focus groups are often used in mixed methods designs as an adjunct to other quantitative methods, to help explore and develop other measures (Wilkinson, 1998). As mentioned previously, the purpose of using qualitative methods was to help design the quantitative measures and compliment the data collected from those measures. The goals of the focus groups were to:

1. Explore, from the facilitators' perspective, the impact of the program on parent-child relationships and answer the research questions.

2. Collect narratives from the facilitators regarding their experience with PCMG to better articulate the outcomes of the program in their community.

   a. Articulation of the outcomes helped develop quantitative measures and provided examples of how those outcomes have been observed.

3. Develop a relationship between myself and the facilitators of the program as the next phase of the program would require us to work together to collect data.

Literature on qualitative methods and community based research encourage the use of the focus groups for purposes of exploring outcomes, experiences and the community context (Neuman, 2006; Wilkinson, 1998). In the review of non-profit organizations and outcome measurement, Benjamin (2012) notes that program research often focuses on implementation and outcomes, and misses the relational work that staff complete in order to successfully implement the program. The review goes on to find that front-line staff often feel their perspectives are left out of the research and the results are discussed as program activities and outcomes (e.g., number of

sessions, program topics, participant satisfaction, etc.) rather than focusing on the relational processes that impact the clients or participants (e.g., teaching methods, relationship building techniques, etc.). With this understanding of the importance of including the facilitators as part of the research, I believe I was able to support and strengthen the methodology, by providing complimentary evidence to other data collected, and construct a greater narrative, with more voices (Chase, 2005), around the impacts of the PCMG program.

Ethics: All procedures for the focus group study were approved by the University of Alberta Research Ethics Board prior to contacting any potential participants. When potential participants were contacted, they were informed of the study and its purpose and were told that not participating would not impact their relationship with FSFFS or their position as a facilitator. They gave consent to be contacted by the researcher to set up a date and time for the focus group. All participants signed an informed consent form before the focus group started. At the focus group, all participants were informed of the purpose of the study, potential risks to participating, issues of confidentiality (e.g., the lack of anonymity in a focus group setting cannot guarantee confidentiality from participants, but the researcher was bound to keeping all data confidential), and how the data would be recorded, stored and used. They were given an opportunity to ask questions and were provided the researcher's contact information.

Recruitment and Participants: To recruit the participants, staff from FSFFS contacted past and present facilitators and explained the research project. This purposeful sampling approach targeted a small population, as any past facilitators with no current connection to FSFFS were not contacted to participate. In total, 17 past and present facilitators were asked to participate and all agreed. They were originally split into three small groups, one with seven, the second with six and the third with four. The third group was smaller as the four participants were unable to attend the other two focus groups, so a third group was scheduled based on their availability. All participants were female and all, but three, were at one time a program participant prior to becoming a facilitator. Demographic information was not collected, but all participants were mothers of children ranging in ages from school-age to adult. In addition to contacting potential participants, staff from FSFFS arranged the day, time, location and snacks for the focus groups which were hosted either at the Families First offices or other community centers.

Instrument: The questions for the focus groups were developed based on the observations and discussions with FSFFS staff along with a review of the literature regarding facilitator impact on program outcomes (Axford, Lehtonen, Kaoukji, Tobin, & Berry, 2012; Webster-Stratton, 1997). To ensure the questions were appropriately worded, they were vetted by the executive director of FSFFS and the program coordinator of PCMG. The following questions were asked. Not all of these questions were posed to all of the participants, due to time, direction of discussion and previous discussions. The following are the guiding questions (see appendix for all questions).

- How does PCMG differ from other programs?
- How has PCMG influenced your facilitation style?
- How do you describe what participants can expect to get out of from this program?
- How do you as facilitators try to encourage positive parent-child connections?
- Would anyone like to share "success" stories they have had as a PCMG facilitator?

Procedure: In May of 2014, three focus groups were conducted - each building on one another by asking different questions and using information from a previous group to probe for more information, or elaborate upon, with their own unique experiences. There were 4 – 7 participants in each group which lasted 1.5 – 2 hours. As the researcher, I led the group through the guiding questions (see appendices). I took notes for the purposes of leading the discussion while an FSFFS staff member took more detailed notes to capture the conversations. Each focus group was also digitally recorded with the permission of every participant and later transcribed. To mimic the PCMG program, all three focus group sessions were opened and closed with a song. This seemed to reassure the participants that I understood the program and created a safe space to share their stories, much like they do as facilitators when hosting PCMG.

Analysis: A narrative approach was taken with both the formation of the questions and the analysis. Narrative analysis, refers to a way in which the data is collected and analyzed in a way that tells a story (Chase, 2005; Neuman, 2006). Whereas, narrative inquiry is a "method of investigation and data collection that tries to retain a narrative like quality that exists in social life" (Neuman, 2006, p. 475). The data collected from the focus groups were used to answer the research questions but still looked for the lived experiences that helped construct a great picture of the program. The transcriptions of the focus groups were coded using a three step approach as

described by Neuman (2006). First, the data from the transcripts was coded by summarizing statements into a few words that I felt described the sentiment. For example, the code "not perfect" was used to describe the statement, "Don't have to be perfect." I also used the code "outcome" if I felt the statement was describing an outcome of the program or an impact it had on themselves, a participant, a child or relationships. From there, more focused coding (also known as axial coding) was employed to find similarities between the codes. So for example, the "not perfect" code came up several times, sometimes worded differently, like "no judgement" or "make mistakes." This example was then given the theme of "nobody is perfect" which is described in the results section. Finally, by looking through the focused codes and all the statements attached to them, I began to categorize them based on how I interpreted them to be answering the research questions. This rearranging of the data helped find comparisons and contrasts of themes and appropriate quotes that, both helped answer the question, and describe the themes that emerged under the question categories.

Quantitative Methods

Purpose: The primary purpose of the survey was to assess the research question: Does Parent-Child Mother Goose strengthen parent-child relationship? If so, how? The quantitative data collected was also used to indicate whether the program achieved the indicators being measured (example of indicators: parenting efficacy and confidence, and emotion regulation) and obtain insights into how the program may achieve its outcome of strengthening parent-child relationships.

Ethics: Ethics approval was obtained from the University of Alberta Research Ethics Board prior to contacting any potential participants. During regular pre-program phone calls, FSFFS informed potential participants of the study that the researcher would be present at the first and last session of the program. It was important to inform potential participants that the researcher would be at the session and that they were under no obligation to fill out the survey. This was emphasized at the time of the first phone call to potential participants and at the first and last session where data was collected. At the first session, all program participants were invited to participate in the study. They were informed of the purpose and voluntary nature of the study, potential risks to participating, issues of confidentiality and how the data would be collected, stored and used. They were given an opportunity to ask questions and were provided

the researchers' contact information. All participants signed an informed consent form before filling out the survey. At the last session of the program, participants were invited to fill out the post-survey. They were again reminded of the informed consent information and the voluntary nature of the study.

Seven participants filled out the survey online. They were given all the same information (in person and/or on the webpage) and asked to fill out the same informed consent form prior to filling out the survey. If they chose this option, they needed to provide their email address, which was only used to send them the pre and post surveys.

Recruitment and Participants: Participants were recruited through the Fort Saskatchewan, Families First Society (FSFFS). Staff made initial contact with potential participants, during regular program phone calls, to inform them of the research and that a researcher would be present at their first session. The researcher was introduced at the session and often participated in the circle or helped with child minding. The session would end 10-15 minutes earlier than usual, and the researcher would introduce the study, go over the informed consent, and hand out the surveys. Those that did not want to participate were told that they could either say no to the survey or just simply leave it blank.

Between January 2015 and April 2016, data from participants who were attending the PCMG program in Fort Saskatchewan was collected. During this time, the program ran four times, (Winter 2015, Spring 2015, Fall 2015 and Winter 2016), with four programs per season. Within these 16 programs, 217 families registered. Of those 217 families, 133 were unique, as in they only attended the program once during that time frame. It is important to note that parents/caregivers can register for PCMG as many times as the age of their children will allow (for example, a parent of an infant can potentially attend a PCMG program every season until their child is 36 months old). FSFFS reports that the same parents/caregivers register 1-3 times a year, and will often register in the program again with their second child. In this study, 65.5% of participants who filled out the survey had attended PCMG before, with the number of times attending the program, prior to data collection, ranging from 1 to 12 times. This impeded data collection, as by the third and fourth program season, many of the parents/caregivers at the sessions had already participated in the survey, making the pool of potential participants smaller with each season.

A total of 51 participants filled out both the pre- and post-tests. However, there were 87 participants who filled out the pre-test (2 of which had been recruited for the comparison group, whose data was included when exploring differences in the pre-test data only). Often, participants either had dropped out of the program, or were unable to attend the last session. Table 2 in the appendix describes the demographic profile of participants who filled out the pre-survey.

Instruments

The following were the assessments used within the questionnaire package handed out to participants. See Appendix III – Quantitative Questionnaire for all instruments.

Demographic Questionnaire: On the pre-test survey, participants were asked to fill out a demographic questionnaire that asked questions about their: gender; marital status; years living in the community; how often they sang or told stories to their children; if they had previously participated in PCMG or other programs; how many children they had; and the ages of their children.

Attachment Questionnaire: The first test questionnaire asked participants to think of the child they are attending the program with and answer questions about that child's behavior. Many attachment studies use observational methods to assess attachment styles in children (Tarabulsy & Symons, 2016). The original method, the strange situation, was developed by Ainsworth (1985) and requires extensive training, is quite time consuming and is done in a laboratory setting. Other observational tools such as the Attachment Behaviour Q-sort have been developed by Waters and Deane (1985). Again, this method requires training and observations of the parent and child in a natural setting.

Scharfe's (2011) study of the PCMG program developed a 24-item self-report questionnaire using the Waters and Dean Attachment Q-sort (AQS). Another study also adapted the AQS into a 12 item self-report survey (Robinson, Rankin, & Drotar 1996). Both of these adaptations were developed based on the AQS items that were found to distinguish between secure and non-secure groups (Waters & Deane, 1985; Vaughn & Waters, 1990). Unfortunately, Scharfe's (2011) 24-item questionnaire was not published and Robinson's, et al. (1996) questionnaire was not appropriate for infants. Therefore, for this study, using a similar method of both Sharfe (2011) and Robinson, et al. (1996), 18 items were developed that parent/caregivers

could answer based on their experience with their infant and toddler. Participants were asked to rate on a scale from one to five (1- Almost Never to 5 – Almost Always) how often each statement applied to their child. Examples of statements include:

- When I smile at my child, he/she smiles back.

- When my child is upset, it can take a long time to settle him/her down.

- When upset, tired, sick or hurt, my child will look to me for comfort.

The Waters and Deane Q-sort has been tested against the strange situation and has been found to be a reliable and valid tool for assessing secure and insecure attachment in children (Vaughn and Waters, 1990). For the purposes of the current study, a Cronbach's Alpha was calculated from the data collected from the attachment questionnaire to assess statistical reliability. The pre-test data had a Chronbach's Alpha of .681 and the post-test data had a score of .781.

Parent Sense of Competence: The next questionnaire filled out by the participants was the Parenting Sense of Competence (PSOC) Scale. This instrument was developed by Gibaud-Wallston and Wandersman (1978) and later validated by Johnston and Mash (1989), and is meant to measure parenting sense of competence. It does this through two aspects of feelings of competence: 1) self-efficacy, which includes skills and knowledge; and 2) satisfaction, which explores the value and comfort of being a parent. Studies have found that the PSOC appears effective in measuring parental self-efficacy in a normative population and it consistently has good content validity, internal consistency, and test-retest reliability (Crncec, Barnett, & Stephen, 2010). Gilmore and Cuskelly (2008) found high levels of internal consistency and factorial validity in the whole questionnaire (16 items, Cronbach alpha: 0.79); on the Satisfaction scale (9 items, Cronbach alpha: -0.75); and on the Efficacy scale (7 items, Cronbach alpha: 0.76.) when they compared the PSOC scale to a normative sample. Of the 16 items of the questionnaire, nine items loaded on the satisfaction factor which makes statements that reflect the frustrations, anxiety and motivation of parenting. The other 7 items assess competence, problem solving and capability as a parent (the efficacy factor). Participants were asked how much they agree or disagree on a 6-point scale, one being strongly agree to six being strongly disagree. The PSOC instrument was chosen based on its relevance to parental self-efficacy (Coleman & Karraker, 1997). This scale was also used by Scharfe (2011) in her study to assess

her participants before and after they participated in the PCMG program. This study used the same instrument with no alterations.

Emotion Regulation: The third questionnaire, Difficulties in Emotion Regulation Scale, (DERS) was used to measure the participants' ability to regulate emotions. Developed by Gratz and Roemer (2003), the DERS assesses several factors of emotion regulation, with the underlying theory that one needs to experience, express and modulate emotions rather than ignore, control and eliminate the emotion. The DERS in its entirety measures several dimensions of emotion regulation. For the purposes on this study, only two of the six dimensions, Impulse Control Difficulties and Limited Access to Emotion Regulation Strategies, were used. It was hypothesized that the PCMG program promotes strategies for emotion regulation and helps with emotion impulse control, for those reasons, the two dimensions on the DERS were selected. In total, 14 items were presented to participants who had to rate how often they experienced each statement on a scale of one, almost never, to five, almost always. Gratz and Roemer (2003) tested their scale and found sufficient construct and predictive validity, high internal consistency (with a Cronbach's alpha >.80 on all subscales), good test-re-test reliability.

Program Specific and Exploratory Questions: Finally, a set of 15 statements were developed (many of which were based on the results from the focus group) to assess the following three areas:

- Program specific questions about emotion regulation for the parents;
- Program specific questions that assessed the effectiveness of the program; and
- Questions that assess the participants behaviour in regards to the level of interference they may exhibit when interacting with their children.

Much like the other three questionnaires, participants rated on a scale from one to five (one being almost never to five being almost always) however often they experience each statement

Procedure: The original research design had both a program group and a comparison group. The intention was to have each group fill out a pre survey, and then ten weeks later fill out a post survey. For those in the program group, their pre and post surveys were timed with the first and last session of their PCMG program. Several factors, including no waitlist for the program, no funding to recruit participants from other communities, and other programs within

FSFFS being influenced by PCMG, precluded the collection of comparison group data, including difficulty recruiting participants.

The adapted research design included only participants that were attending the PCMG program in Fort Saskatchewan and agreed to fill out the survey. During, or within a week after the first PCMG session, participants were asked to fill out a survey consisting of four assessments and one page of demographic questions. At the last session (ten weeks later) participants were asked to fill out the same four assessments to see if there were any changes. The researcher or facilitators would collect the surveys or the email addresses (for online surveys) from participants at the program site.

Data Analysis

The data from the survey was grouped and analyzed in several ways to answer the research questions. The first analysis looked at pre- and post-test scores. All total scores and individual answers were checked for significant differences in responses from when the participant started the program to when she/he finished it. The second analysis grouped participants based on their responses and examined the differences between groups. Finally, further exploration of the data, including correlations between questionnaires and individual data points was also conducted to examine the connections between all questionnaire responses, including demographic data and the program specific questions.

All survey data was analyzed using the statistical program SPSS. Scores from the attachment questionnaire, Parent Sense of Competence (PSOC) and the scales from the Difficulties in Emotion Regulation (DERS) were added up to compare totals within and between groups. (Note: to use a questionnaire's total score for analysis, all questions within the measure had to be answered. Lower numbers are reported for each questionnaire in the results section as any questionnaires with missing answers were excluded from many of the tests).

Types of statistical tests: Both parametric and non-parametric tests were utilized during analysis, depending on the points of data being analyzed. Parametric tests are more rigorous because they include a large enough number of respondents that reported using scale data which was normally distributed. Data that followed these rules was subjected to parametric tests such as t-tests (paired and independent). Data that did not meet one or more of the standards, was explored using non-parametric tests, which are still quite useful, even though not as rigorous

(Faherty, 2008). These tests included Wilcoxon-Signed Rank, Mann-Whitney U, Kruskal-Wallis H tests and Spearman correlation. Often comparison tests compared several groups of data determined by the demographic questionnaire to explore if the program had impacts on different groups of participants.

Participant categories for between group tests:

Exposure to the program: Participants indicated on the demographic survey whether they had previously participated in PCMG before and if so, how many times. Using this data, participant's pre-test scores were grouped into categories of exposure to the program and comparison tests were run to see if there were any differences between groups.

More Secure vs. Less secure: The pre-test attachment scores were split into two groups, less secure and more secure, using two different methods. It was unclear how previous studies had determined cut-off points in their data when grouping participants by security. Therefore, the following two methods were used for statistical analysis as an exploratory process.

33% Method: The first method divided the attachment pre-test data into thirds to determine cut-off points. The first cut-off point was based on maximum score in the bottom third (75.35), anything below considered less secure. The other cut-off defined by the minimum score in the top third (80.28), where any participant scores above are considered more secure. Using these cut-off points, the post-test data could be placed into the categories of less secure (bottom third) and more secure (top third). Those in the middle third were not included in the analysis, as their attachment classification with the new measure may be less certain. Participants were also grouped in less secure and more secure and their scores on other measures were compared.

Median Method: The second method simply used the median (78) of the total attachment score as the cut-off point between less secure (77.99 and below) and more secure (78.00 and greater). This allowed for a greater n in the analysis, as the 33% method would exclude a third of the attachment pre-test data as it fell between the less secure and more secure cut off points. However, the median method did not have as extreme scores and differences between the two groups, making it more difficult to find a statistical difference.

Age of mothers: The data was split into two groups to look at the difference between young mothers (23 years or younger) and mothers older than 23 (Bradbury, 2011).

New Mother: The data was split to explore the differences between mothers with only one child versus those with more than one child.

New to the Community: Finally, the data was split between those who are new to the Fort Saskatchewan community (have identified as living in the community for less than 3 years) and those who have lived there for 3 or more years. These groupings were analyzed to explore the concept of community support with the quantitative data.

Chapter 4 – Results

This chapter presents both the qualitative and quantitative results. The qualitative themes that emerged from the data were used to develop the quantitative measures and help answer the research questions.

Qualitative Data Findings

This section will describe the qualitative data results from the program observations, analysis of the program materials and the focus groups with PCMG facilitators. The qualitative results presented here helped answer some of the research questions, especially in describing how the program strengthens parent-child relationships.

Observations and Program Material Analysis

Parent-Child Mother Goose Program Observations: I observed the PCMG programs, both as just an observer, and as a researcher there to collect the quantitative data. Both times, I was introduced to the group as a Master's student from the University of Alberta, and my purpose for being there was stated. My early experience with the program probably resulted in more reflective and detailed field notes as I had only been exposed to the program through training, reading and meetings with FSFFS. To give the reader a sense of what I experienced from one of the first visits to a program, here is a narrative developed from my field notes (Weber, Dashora, Boonstra, Heatherington, 2014):

I entered the room in the Pioneer House in Fort Saskatchewan where the PCMG session was being held. I met the facilitators and signed in as a guest. There were blankets set up in the room and the two child minders were already standing around the blankets smiling at the children. Mothers with their infants and toddlers had started to settle down on the blanket. Some were chatting with each other, while others were sitting with children. One of the facilitators sat down next to a mother and asked to hold her baby. As she did she continued to chat with the mother and ask her questions about her family. There were three other students attending today's session. As the room filled up with mothers and children, the noise level increased. Some of the older children were wandering around and playing with each other, while others stayed close to mom. Just after ten, once all the moms settled around the circle on the blankets, the two facilitators looked at each other and started to say slowly,
Here is the Earth.
Here is the Sky.
Here are my friends.
And here. Am.I.

The room quickly became very quiet and calm. The one baby who had been making loud screechy sounds stopped. Some of the children who had wandered off, stopped and returned to

their mothers. The facilitators paused and then repeated the rhyme. This time more people chimed in. Afterwards, everyone was welcomed and introduced again by song;

Ick-a-dee-dick-a-dee bumblebee
Won't you say your name for me?
Tasha
Tasha, that's a very nice name

This song was repeated for everyone/family in the circle and the child minders. During this introduction we probably repeated the song at least a dozen times in a slow, lullaby voice.

As for the observational data that relates to the research questions, the following learnings from the notes best answers the main research question, Does PCMG strengthen parent-child relationships, if so how? As I reviewed my notes, the difference between the first and last PCMG class stood out. In the first class, often there were parents who had obviously participated in a program previously as they would either have a comfortable relationship with the facilitator or other participants. If parents knew each other, they often sat next to each other, catching up on what had happened since the last time they saw one another. Other parents, were either focused on their child, or were new to the program and therefore were quietly waiting for it to start. There were three distinct differences observed between the first and last class and I believe it had to do with their relationships with their children and their confidence in themselves to participate in the program. In the first classes of several sessions, I observed some parents visibly uncomfortable singing out loud to their children in the group. I also observed parents, especially those new to the program, wanting to keep their children close to them. In some cases, even if the child wanted to roam around, the mother would physically move them back to be in front of her or on her lap. This was especially noticeable when an interactive song was introduced. New participants also would promptly leave the group when it was over, with very little interaction with other participants or the facilitators. At the last session, many of these behaviours seemed to had changed. The room actually seemed louder than the first session, as children would roam around and play, and parents would be singing the songs they had learned over the 10 weeks, with very little concern in their voice or body language about singing in public. The need for their child to be at their side for the entire session did not seem as important by the last session. Finally, it was noted that many more of the parents were socializing at the end of the session, compared to the first session. I believe the observations I made during the

first and last session were evidence for the program promoting parent-confidence in their ability to sing and play with their child and a comfort with the idea of letting their child lead the play. They also seemed to enjoy the interactions with their child more as their comfort level with singing and playing seemed to increased. The program also appeared to increase social support for some of the parents through making friends with other parents and finding support through the facilitators. The sense of support could have also helped increase their confidence and engagement in the program as they became more comfortable with the setting and the people.

Program Material Analysis Findings: Analysis of the program materials focused on the outcomes and impacts the program has on participants. Three categories of outcomes emerged which were labelled as indicators and were grouped according to who or what the program was impacting. They included: 1) Indicators for the parent/caregiver; 2) Indicators for the child(ren) of the parent/caregiver attending; and 3) Indicators that influence the parent/child relationship. Table 1 in the appendix lists all indicators that were found within each of those groups. The program materials and reports indicated that the program strengthens parent-child relationships, promotes secure attachment styles, increases the knowledge and confidence in parents, and increases parent's emotion regulation and social support.

Focus Group Findings

Demographics: At the beginning of each focus group, facilitators (focus group participants) were asked how they got involved with, and how long had they facilitated, the program. Almost everyone, except for three of the 17 facilitators began the program as participants. The number of years facilitating the program ranged from 8 months to 17 years. The average amount of years facilitating was about 7.5 years ($SD = 5.03$ years), with some facilitators working on and off for many years.

Parent-Child Relationships: Facilitators were asked to describe the outcomes of the program, specifically whether the program strengthens parent-child relationships. While doing this, they often would jump back into the conversation about how the program achieves outcomes related to the other research questions. Nevertheless, the concept of the parent-child relationship was described as an outcome a few times. Words such as "bond" or "interactions" were sometimes used to describe what was built during, and outside, the program. Two facilitators repeated this simple statement in agreement with each other, "We train the parents

and then they use it to bond with the children." Prior to that, one of the facilitators explained that, "it's what [the songs, rhymes, stories, touching, playing, etc.] they [parents] learn and they take it home and that's when the bonding takes place and it has to do with and it's the interaction of the rhyme and the language and the touch."

Other stories emerged about how the program had impacted the whole family, not just those who attended the program. An interesting narrative that came up a few times in separate focus groups were examples of when dads or grandparents knew all the songs, even though they had never attended the program. One facilitator explained, "One dad in the group, big burly guy, the first time he came it was like week 6 and he knew all the songs, so they were obviously using them at home. He just sang and was part of the group." Facilitators noted that the program helps families bond and enhance relationships between the child and members of the family. This makes sense given that as mentioned above, program participants bring their learnings back home where the bonding takes place.

Parent Self-Efficacy: PCMG seems to increase parental self-efficacy through first providing parents with tools and strategies and then helping them reflect on how they used them. The relationships established with facilitators creates a space for parents to share their success stories and ask for more help and guidance. Facilitators noted changes in the level of confidence with how they interacted with the child and the group, and would observe parents using the newly learned strategies throughout the ten weeks. Examples included specific songs for changing diapers or getting a child into a car seat, the use of different volume and tones of voice to get your child's attention, and using songs as a distraction tool for toddlers rather than punishing or saying no. These were described as just being casually incorporated into the program based on the group's needs, so as not to be lecturing or irrelevant.

Program participant self-efficacy came up in several stories or descriptions of program outcomes. As one facilitator explained it, "at PCMG, people find their voice." This describes how program participants become more confident to not only sing, but also make up stories, and use silly rhymes with their children. This also seemed to indicate a better understanding of their child and the child's needs, and the relationship they were building. A participant's voice was also defined as their ability to "discover their own voice in a story," advocate for their child and expand their experience out to the community. Facilitators noted that several program

participants moved on to become volunteers and leaders in their community, including those who started as participants and became facilitators. Facilitators noted observing pride and excitement in program participants when they shared their experiences using a song or rhyme during a trying time with their child. Many facilitators had stories of when a participant used a technique or song they had learned in a PCMG class. For example, one facilitator remembered a participant telling her:

> *"So she [the participant] was in the doctor's office and her child started acting up and initially she was like… Oh no… But then she said wait a minute, I know how to do this now. So she took her child and started doing whatever little song that she now knew she could do to entertain her child and then her child was calm and she was like ah ha. This works! And she was caught up in the joy of my child is now calm and this isn't too painful anymore"*

Another facilitator portrayed the program as empowering for participants. She explained that, everyone starts at the same level and there is no wrong way of singing or rhyming or telling stories. More importantly, participants gain confidence and skills they need at the time. As another facilitator noted when dealing with the stress of parenting, "[The program] gives you the confidence to know that you can handle it. You can deal with it with those songs."

Another example in which parental confidence and more specifically, efficacy, was discussed was in terms of the parenting strategies or "Tool Box". It was indicated that PCMG provides participants a range of tools and strategies for parenting. Parents found it useful to have a number of songs or stories memorized, in their "tool box" which they could use in many situations. As one facilitator noted about her own experience,

> *"As a parent, having a toolkit of songs and stories to fall back on. You're out and about and the kid starts freaking out, you might sing their favorite songs to bring it back to normal. It gives you the confidence to know that you can handle it. You can deal with it with those songs."*

Facilitators often would teach parents the strategy of following their child's cues using songs and stories. "after 4 or 5 sessions that they have these different strategies to allow their child to be the leader and working at better harmony, there is not that power struggle." The concept of confidence or comfort level was interwoven with stories of participants utilizing the tools and

strategies from the group. Facilitators often noted observing participants struggling at the beginning of a term and by the end they were comfortable trying different strategies or discussing how they tried a song and how it worked. One facilitator explained the general outcomes she often saw in participants between the first session and the last.

"If I've been facilitating a program, and a parent and child come in and the parent shows signs that they are unable to deal with a situation and they don't have the skills to think of an option, but then I notice, following the weeks, I notice that they have different tactics, to wrangle up their child. Now they have different strategies. You know the first week they may be quite stern and then in the following weeks they try something else and see how that goes. That's what I notice."

Finally, the program provided an opportunity for participants to develop relationships with other parents, the facilitators, and the community. This social support was crucial to participants, especially those who were new to the community, as one facilitator noted, she often encouraged newcomers to attend, "And if you're new to a community like I was, it's a great way to meet people." Some facilitators described their personal experience as a participant and finding lifelong friends through attending the program.

"It continues, the connections we make, whether it's facilitator to facilitator, participants or even participant to participant. We know that we've made friends like as participants, we made friends and as a facilitator we made friends and it doesn't stop when somebody leaves the program it continues. You keep running into them or they come back."

It was also noted that through this program, participants are often referred on to other programs or groups as the facilitators assess their needs. Their ability to make these referrals comes from the trust that is built over the ten weeks of classes and phone calls. As one facilitator pointed out, they are able to make more referrals because "they trust us" and "they feel safe with us." In addition to moving on to other programs, examples were also given of participants becoming more involved in their community through attending community events advertised during the program or becoming volunteers. I believe that this community support, and access to further parenting resources, provides parents with needed supports to enhance their parenting abilities and their confidence.

Emotion Regulation: There were several stories related to emotion regulation and the PCMG program that either facilitators experienced personally, as participants, or heard from program participants while facilitating the program. All had a similar theme in common, which was this understanding that the songs and rhymes were not always for the child, but for the "big people" too. It was noted that, through the strategies they learn, it sometimes takes more than ten weeks for participants to realize the impacts the program has on their mental and emotional well-being. However, many of them do recognize that they themselves feel better after singing, even if the child does not calm down. In addition to calming them down, singing can seem to provide them with a distraction or avoidant coping strategy. One of the best, and humorous examples was a facilitator's own personal story from when she was a participant:

> *"My son, he had an ear ache, we were camping and I knew it was an ear infection, I knew. But we were out in the middle of nowhere, it's 2 in the morning… What are you going to do? … And that's why 'Pigeon' is his lullaby – that was the lullaby we learned and he laid on my chest and I sang that lullaby for probably for 3 hours and he screamed the entire time… One of my kids woke up and said I don't think it's working mom and I said it's helping me, it's not for him it's for me right now."*

She went on to explain how it helped her, "It gave me something else to do and keep my mind off of that cause if I hadn't been singing pigeon and trying to remember those words I would have been thinking why, why couldn't I do this?"

Facilitators continued to describe both their own experience with emotion regulation strategies and stories that program participants shared with them. For example, one facilitator described using singing during a stressful road trip; "we did a 4000km road trip with a 1 and 3 year old and if I didn't have the songs we would have probably had to drive off the road or something. She cried for 3 hours and I sang for 3 hours." Another facilitator gave a more general example when explaining how the program strategies can help keep a parent calm; "sometimes it's you as the parent or caregiver, you're the one being distracted, ok, they (the child) didn't change, but I'm able to keep calm a little more." Others recognized the positive effects on emotions they observed in both the program participants and themselves. While describing how the program not only provides parents with the tools they need, a facilitator acknowledged that parents actually get to experience how these tools and strategies impact them, often by

improving their mood. "it's not about building the tool box…it's about them finding out that I feel better when I do this [strategy or tool]." One of the facilitators pointed out that, "You can't be in a bad mood and sing. You can't be grumpy and sing. It puts you in a good mood. You can't be angry at all." This illustrates the positive outcomes of the many tools and strategies (including singing) that impact program participants and facilitators. One of the most impactful statements shared by a facilitator was from a mother who attended the program. At the end of the session, the mother shared with the facilitator, "I sing more, I yell less." Although in none of the stories shared did anyone say they developed emotion regulation strategies, it was clear, that the program provided participants a way of coping with the stress and emotions that come with being a parent.

  Unexpected Findings: Other themes emerged from the focus groups that did not directly answer the research questions, including some references to the primary research question: How does the PCMG program impact parent-child relationships? It was important to note these themes as they came up more than once and are related to the factors that contribute to either parenting approaches, attachment, or parent-child relationships. Further exploration of these connections will be considered in the discussion chapter.

  The results of the focus group seemed to indicate that there were several factors that contributed to strengthening the parent-child relationships with program participants, including the teaching styles, facilitation techniques, and role of the facilitator. The role and practice of the facilitator came up several times during the focus groups, some of the unique features described included; facilitators focusing on teaching the parents, not the children, the songs; providing weekly follow-up phone calls; being flexible throughout the class and the whole 10-week session by following the needs and mood of participants. Facilitators also spoke often about their ability to teach and model parenting techniques and strategies in subtle and passive ways through regular conversation, and demonstrating that nobody is perfect, through admitting or making their own mistakes throughout the session. The program is meant to not only teach songs, rhymes and stories to parents, but also how to bond with their child and provide participants strategies to relate to their children. The facilitation of this program also helps with other outcomes such as parent confidence and emotion regulation, however it is hard to distinguish which outcome the facilitation and teaching styles are aimed at.

The first teaching technique facilitators described was modeling "nobody is perfect." Facilitators noted that often when they made mistakes or forgot how a story was told there was an opportunity to demonstrate that nobody is perfect. Or as one facilitator described it, "there is no right way to sing to your baby." Another facilitator recalled a program participant explaining their relief when a facilitator makes a mistake, "oh my goodness, (the facilitator) couldn't remember the line to that story. Excellent, I don't have to be perfect either!" Program participants would see that they do not have to know all the songs, be the best singer or remember the entire story. As one facilitator explained, "as mommies we don't need to be perfect singers to our kids… Jr. just wants to hear you sing to him." Making mistakes also allowed for adaptability in the program or song/story. Facilitators explained that their role was to read the room, know when to change up a story or try something new. This demonstrated methods to test strategies not only with the group, but also with each individual child. As one facilitator described: "We reinforce that there is no wrong way to do it – whatever works for your child, works." Often by modeling their own imperfections, the facilitators created a safe space for participants to try new things (like sing in public) and learn what strategies work for them and their child and which do not.

Another key theme to teaching, that came up several times throughout all three focus groups, was the subtle method in which parenting strategies were taught. Different facilitators would bring up the fact that the program does not lecture or teach in the traditional approach on how to "best" parent your child. As one facilitator explained, "you're trying to engage them, not just teach them something." This was an important distinction as one of the outcomes was to provide participants several different strategies and skills to try to parent their child. Facilitators would subtly teach important parenting strategies or skills which was typically done through role modeling or praise. They would often "[drop] a little tid-bit of information and not in a preachy way" by providing several examples of how to use a song or rhyme in different situations such as getting ready for bed, placing baby in a car seat, lunch time, etc. Facilitators would also discuss how to interact with a baby/child, sometimes even asking to hold a baby to demonstrate. One facilitator described how she likes to teach participants how to learn what their baby likes:

> *"So for the movement round…if your baby likes their face touched you might do it this way or you might do it on their belly or some people like it on their foot …its a great one for learning what your baby likes"*

Even in scenarios where they notice an opportunity to improve a participant's behaviour or skill, the teaching is still approached delicately and with little to no judgement. A facilitator provided an example of this:

> *"you see one parent holding their infant without supporting the neck so we'll do a song that needs you to hold a baby in a certain way – then point out how you need to support the child's neck"* She went on to describe how she would demonstrate to the mom, by asking, *"can I have my baby fix today? do you mind if I hold your little one for a little bit and ask permission and then physically model, [with] their baby, that's supporting the head"*

Facilitators also provide feedback to participants in a way that allows them to learn more about their child. As a few facilitators pointed out, they would say things such as the following to parents after a song or rhyme, "They [the child] really enjoyed that tickle" or "[you] should have seen how much he smiled." A good example of providing feedback and modeling was when facilitators would allow for participants to model behaviors. For example, a facilitator described a time when a child was misbehaving and the mother followed through on the punishment of leaving when the child refused to listen:

> *"I phone people after and said to them that is awesome. And if they follow through. If they say if you don't stop, we are going to leave and they do. I always phone the parent afterwards and say good on you. That was probably the hardest thing to do as a parent and when they follow through. And the whole group saw it!"*

In addition to the teaching and facilitation techniques, the role of the facilitator was described as someone who, by bringing their own personal stories and styles, connected with participants and created a safe and trusting space for them to learn. Some facilitators described how PCMG has permeated many other parts of their lives, not just their family and children. They often brought these learnings to their PCMG classes and shared with the program participants. This unique personal touch to the program facilitated many of the outcomes as illustrated by this last comment:

"They just don't see you as a facilitator, they see you also as a mom and a community member and part of society. That makes them relax and just know that you are just trying your best like the rest of us"

This trust in the facilitator often allowed them to be a source of valuable information on parenting strategies and to reach out with other community resources to participants who were struggling. This was described by one facilitator:

"A role of a facilitator would be to be a liaison, because, you have, hopefully you've built a relationship with some of these people and if you, if there are other services or other things that could benefit them or if they are looking into, they are more likely to be open and honest and more candid, with a facilitator"

The phone calls in particular seemed to be an influential factor in creating trust and creating a safe space for learning. A few days before the next class, facilitators would make phones calls, typically at a convenient time for participants, to confirm their attendance. Participants were told about the phone calls at the first class. Facilitators would ask specific questions, some that were meant to engage the participant and others to evaluate the program. Facilitators discussed the initial apprehension with doing the phone calls every week. They felt that it may be annoying to the participants, especially when they introduced a script for follow-up questions. However, it became clear to most facilitators very quickly, that the phone calls provided a mechanism for them to connect to participants so that they could engage in the program. Even those who could not attend every week still had a connection to the program.

"I know there was once a mom that didn't show up except for one session and she kept on saying, but I got your phone calls every week. And that's awesome. And she made it to one. And I just think about the person who comes in the 7th week but they feel ok because of the phone calls. And they feel comfortable"

The phone calls, as a unique feature of the program, often allowed for participants to reflect on their learnings, week to week. This was the time facilitators would often hear of stories when the participants used a song or rhyme with their child successfully. A facilitator recalled a story from a mom, where the mom said on the phone that she had been so tired lately, but something wonderful happened. Her three year old started singing to her newborn, both of whom she had been bringing to the program. She asked the facilitator if that was ok, and the facilitator,

reflected back to her how wonderful that was and gave her "kudos" for coming back to the program week after week. Much like this story, program participants sometimes use the phone calls to ask questions or seek advice. The facilitators can be "another big person for her [a participant] to be able to bump an idea off." In this case, the facilitator was describing a time when a participant had a health concern about her child. The facilitator simply recommended that she listen to her instinct and referred her to some health resources. The phone calls seem to provide participants a time to reflect on their relationship with their child and facilitators to offer more parenting strategies and resources.

Finally, as the behaviour and temperament of the child will impact the parent, and thus their parent-child relationship (Belsky, 1984), it is important to look at some of the outcomes for the children attending the program. Much of these outcomes discussed in the focus groups were facilitators speaking of their own children, with whom they attended the program as participants, and who are now older. However, there were a few commonly noted outcomes for children; one of which included pre-literary skills and understanding of story patterns and structure. Two facilitators noted their children, now in grade school, have a love for books and great writing ability. One mentioned that her son never liked the songs but really enjoyed the stories. She went on to say, "And now that [love for stories] has translated to books. Books and stories calm him down. He wants to tell stories now. It is now a strength in his life. Strength of language, knowledge and story, he's above level in school." The other facilitator said that her kids are asked, by teachers, "how did they know the pattern of the story?" She went on to say, "And now that they are older, their writing ability is through the roof."

In addition to literacy skills, facilitators also described the emotional connections the program seemed to instill in their children and others. This was observed by some of the facilitators ,who are still connected to the community, who run into children they facilitated many years ago. The children do not remember who the facilitator is, but when they hear the rhyme or story they are suddenly engaged, either with their parent, that facilitator, or the group they are with. During one of the focus groups, some of the facilitators recalled a celebration for the Families First Society where former and current participants came together. Often children who had participated as infants, now slightly older, did not remember the group or the facilitators. As one facilitator described; "But then in our big circle of like 100 people we were

like ok we are going to do 'smooth road' and boom that child was on that parents knee. So they didn't need to remember us, they were remembering the important stuff." The important stuff being how they felt. Another facilitator described it, "They don't even have to remember the words but how they felt at that time. It's how you feel, that's what they are remembering. That was a fun time, or I was loved, and you remember that part. That's what the kids remember."

Pre-literary and social outcomes for the children, although slightly unrelated to the focus of this research, are interesting and have helped the facilitators see the impact of the program, not only on the participants, (including themselves as participants) but also on the children. They spoke with great pride of their, now older, children's successes in school and made the connection back to the program for instilling a love for stories in their children. I believe the program had long lasting effects on these children, their parents and their parent-child relationships, when you consider how a relationship evolves. The simple impact the program had on the child's literacy skills has most likely influenced how they interacted with their parents and teachers as they grew older, and has contributed to the positive praise these parents have for their older children.

Quantitative Data Results

The focus group results indicated that the PCMG program had an impact on participants including on their relationships with their child, their level of confidence in their parenting abilities, their use of parenting strategies, and their own emotional regulation. To further measure and provide quantitative evidence to these findings, participants of the program filled out questionnaires as described in the methodology section..

Distribution of Data: The three measures used in the survey (Attachment, Parent Sense of Competence (PSOC) and Difficulties in Emotional Regulation (DERS)) were tested for normal distribution to help determine the appropriate statistical test. Table 3 in the appendix reports the Skewness, and Kurtosis level (a factor used to consider whether a parametric or non-parametric test was used) of each questionnaire, pre and post, and the appropriate tests that could be used with the data. The only scale that met some of the assumptions for a normally distributed sample for both pre- and post-test data was the PSOC. All questionnaires had a large enough respondent number and the attachment questionnaire had only a slightly skewed distribution, so parametric tests could still hold up to this data. The only questionnaire that was

problematic was the DERS, therefore, non-parametric tests were used when analyzing the emotion regulation data.

Research Question: Does the PCMG program promote secure attachment styles in infants/toddlers? If so, How? The attachment questionnaire was designed to answer this question and consisted of 18 items. To determine a total score (on a scale from 1-5), all responses to the 18 items were added up (only those who filled out all 18 questions were included). These totals could range from 18 to 90. High scores indicates secure attachments. The pre-test data total scores ranged from 60 to 87, with a mean of 77.82. When pre- ($M = 77.50$) and post-test ($M = 76.70$) data were compared using a paired t-test, results indicated there was no significant difference between the first session and the last session ($t(39) = 1.024, p = 0.312$). Exposure to the program was examined and pre-test results indicated no difference in attachment scores between those who had previously participated ($M = 77.30$) and those who had not ($M = 78.82$) ($z = 418.5, p = .449$). Further exploration examined the difference between those who have never participated ($M = 78.82$) vs. those who had previously participated more than 2 times ($M = 76.14$) and still found no difference in pre-test results with repeated exposure to the program ($z = 1.502, p = .141$). Other groupings of data were also explored to determine if there were differences in attachment scores. No significant differences in attachment scores were found for young moms, first time mothers and those new to the community. Interestingly, when looking at individual questions, results from six of the questions indicated a significant difference (See Table 4 in appendix) between those who had participated before and those who had not. However, in all of these differences, the higher scores belonged to those who had never participated in the PCMG program before.

Research Question: Does the PCMG program increase parental self-efficacy in program participants? To answer this question, the PSOC questionnaire was used. A total score was determined by adding up the responses (scale from 1 – 6) to the 16 items (only those who filled out all 16 questions were included). The totals could range from 16 to 96. Scores from the two sub-scales, efficacy in parenting abilities, and satisfaction in parenting were also added up and analyzed (Totals could range from 7 – 42 and 9 – 54 respectively). High scores indicate high levels of parental competence, efficacy and satisfaction. Using a paired t-test, the pre and post means were compared. Participants reported a significant increase between their first

session and their last session (see Table 5 for descriptives) in there parenting sense of competence (PSOC total: $t(41)$ = -2.418, p = 0.020) and their parenting self-efficacy (Efficacy total: $t(45)$ = -2.878, p = .006). There was no significant difference in pre- and post-test scores for their sense of satisfaction as a parent (Satisfaction total: $t(46)$ = -1.154, p = 0.254). Further exploration indicated that there was a significant increase in pre- to post-test scores of the self-efficacy scale for those who had participated before (see Table 6). No other significant differences were found in the pre- and post-test scores when looking between groups of those who previously participated versus those who had not.

Some unexpected results were found through various groupings of the data. No differences were found on any of the PSOC scales when looking at those who had never participated versus those who had participated at least once. However, when those who had never participated (M = 73.50) versus those who have participated three or more times (M = 68.00) were compared, there were significant differences in participant's reported sense of competence (PSOC total: $t(45)$ = 2.178, p = .035). This was an unexpected result as those who never participated had higher scores. Further groupings of participant data found some interesting results, including the finding that mothers aged 24 or older had significant differences in their sense of competence on their pre- and post-scores for the PSCO total (M = 69.46, M = 72.19, pre and post respectively, ($t(36)$ = -2.686, p = .011) and in their reported self-efficacy (M = 33.44, M = 34.51, respectively, ($t(40)$ = -2.938, p = .005). When controlling for whether or not the older moms had participated in the group before, there was a significant difference in pre-and post-test on these two scales (see Table 7 for details).

Using a Wilcoxon Signed Ranks test, significant differences were found in pre- and post-score for those who are new to the community (have only lived in Fort Saskatchewan for less than 3 years) when they reported their parenting sense of competence(M = 69.00, M = 73.54, pre and post respectively, z = -2.326, p = .020) parenting self-efficacy (M = 33.00, M = 34.64, pre and post respectively, z = -2.442, p = .015) and their satisfaction as parents (M = 36.50, M = 39.21, pre and post respectively, z = -1.975, p = .048) . A final unexpected finding was discovered when looking at new moms. The results indicated no difference between pre and post scores on any scales for new moms, however, moms with 2 or more children saw a significant difference in their pre and post scores on the PSOC total (z = -2.072, p = .038) and the Efficacy

scale ($z = -2.031$, $p = .042$). When controlling for whether or not moms with more than one child had participated in the group before, there were only significant differences in their pre- and post-test PSOC scores ($M = 67.86$, $M = 71.14$, pre and post respectively, $z = -2.210$, $p = .027$) .

In addition to the PSOC questionnaire, the program specific questionnaire aimed to asses some parenting skills that should be influenced by attending the program, based upon the data from the focus group. For two of the questions, a pre- and post-test difference was found in two of the questions as shown in Table 8 of the appendix. One of those questions would seem to indicate that the parenting strategy of talking in a calm and soothing voice helps with a really upset or crying child. It was also strongly correlated to the PSOC questionnaire ($r = -.504$, $p = .000$). The negatively worded question: "When my child is really upset and crying, talking in a calm, soothing voice does not help" had a significant decrease between pre- and post-test data ($z = -1.972$, $p = .049$). Another question, "When my child gets angry I know the reason why," which was developed to assess a parent's confidence in how well they know their child, had a significant difference ($t(80) = -2.419$, $p = .018$). between those who have never participated before ($M = 3.50$) and those who had ($M = 4.06$)). Another item, "When I sing, rhyme, or tell a story, my child will look directly at me," had significant differences between pre- and post-test data and a weak, but significant association ($r = .351$, $p = .002$) with the PSOC scores, which may be related to how satisfied parents feel when interacting with their children.

Research Question: Does the program increase emotion regulation strategies in participants? If so, how? To answer this question, the Difficulties in Emotion Regulation Scale (DERS) and its sub-scales were analyzed. The DERS questionnaire consisted of 14 items. To determine a total score (DERS total), all responses to the 14 items were added together (only those who filled out all 14 questions were included). The totals could range from 14 – 70. Two scales within the DERS, one that measures impulse control with emotions (Imp total) and the other looks at availability strategies used to regulate emotions (Strat total) (totals ranging from 6 – 36, and 6 – 40 respectively). A lower score indicates higher emotion regulation. No significant differences were found within the pre- and post-test data on any of the DERS scales. Similarly, there were no significant changes in pre- and post-test scores between those who had previously participated in the program versus those who had not. Even when all combinations of possible exposure to the program groups (never, 1-2 times, 3 or more times) were compared, no

significant differences were found in the pre-test data. Some results were found when looking at different groupings. Using a Mann-Whitney-U test, a significant difference found between mothers 23 and younger ($M = 17.44$) and those 24 and older ($M = 13.01$) on the DERS Strategy scale ($z = -2.690, p = .007$). However, when controlling for participation, there were no differences within each of the age groups.

None of the individual questions in the DERS questionnaire had significant differences between their pre- and post-test scores. However, those who had previously participated vs. those who had not, had differing answers to the following questions on the pre-tests (means reported as those who have participated, those who have not respectively):

- When I'm upset, I feel like I can remain in control of my behaviours. ($M = 2.20$, 1.65), $z = -2.108, p = .035$).

- When I'm upset, I start to feel bad about myself. ($M = 2.16$, 1.90, $z = -2.457, p = .014$).

How does PCMG program impact Parent-child relationships? None of the questionnaires directly measured parent-child relationships, but as the literature review revealed, attachment security, parenting self-efficacy or competence and emotion regulation all contribute to the quality of parent-child relationships. So to answer this question, tests were completed to explore the relationships between the attachment, the Parenting Sense of Competence scale (PSOC) and the Difficulties in Emotion Regulation scale (DERS). First, the relationship between attachment and PSOC scores were examined using a Spearman rho correlation. Results found that as parents' sense of competence increases, so does the level of secure attachment ($r = 0.494$. $p = .05$). A moderate, positive relationship was found between attachment scores and the satisfaction of parenting ($r = 0.406, p = .05$), and for parent self-efficacy ($r = 0.330, p = .05$) (See Table 9 in appendix for results). To determine if there was a significant difference between parents whose children are more securely attached than those who are not, the PSOC scores were compared between two groups: those that rated their children as less securely attached and those who rated them as more securely attached (using both the 33% and median method as described above). These associations were explored looking at changes between pre- and post-test scores, or controlling for participation, and no significant results were found.

Similar tests were completed using the DERS scores. When examining the relationship between the attachment questionnaire data and DERS scale(s), a Spearman rho correlation found that as attachment scores increase, DERS scores decrease (r = -0.386, p = .05). Similar significant correlations were found on the DERS sub scale, however, the strength of all the correlations were moderate (see Table 9 in appendix).

A final finding that may indicate that the program strengthens parent-child relationships is the significant increase in scores to one of the statements in the program specific questionnaire: "When I sing, rhyme or tell a story, my child will look directly at me" (see Table 8). It would seem that between the first session and the last, parents found their children engaged in the songs, rhymes and stories more often, which could help strengthen their relationship.

Chapter 5 Discussion and Conclusion

The Parent-Child Mother Goose program has been teaching songs, stories and rhymes to families in Canada and other countries for over 20 years. Previous research has found evidence that the program increases parent's confidence, knowledge, and skill (Carroll, 2005; Weis, 2006; Scharfe, 2011). In the same or similar studies participants reported an increase in feelings of social support and connection to community (Carroll, 2005; Weis, 2006; Formosa, et al., 2003). Other findings indicate that parents use singing as a calming strategy during times of stress (Janzen, 2001; Weis, 2006). Finally, previous research has also found the program impacts on children's language, social and emotional development (Martin, et al., 2004; Formosa, et al., 2003; Terrett, et al., 2012)

To summarize, the present study helped confirm what other studies have observed with the PCMG program in regards to attachment and parent self-efficacy. In addition, the current study adds to our understanding of the effectiveness of existing parenting programs, like PCMG, by exploring the processes that impact participants and measuring relevant outcomes. The findings add to our understanding in several ways, including (1) the role of facilitators in achieving program outcomes, (2) the influence programs like PCMG have on participant emotion regulation, and (3) the importance of the social support created in group parenting programs.

The theoretical framework of Bronfenbrenner's ecological system and PPCT model helped guide the design and focus of the study to explore the connections and processes that operate between the PCMG program and the parent-child relationship. Attachment theory and Belsky's parenting process model helped frame and analyze the specific processes (determinants of parenting) and outcomes (secure attachment) used to examine the impact the program had on parent-child relationships. Evidence from the previous research and the present study suggests that the environment created by the PCMG program influences parenting characteristics such as self-efficacy and emotion regulation, both of which (in Belsky's process model of parenting) have a positive impact on the parent-child relationship and secure attachment (Belsky, 2014).

What is noteworthy are the results from the qualitative data that went beyond the original research questions and explored other processes that explain the connections between the PCMG program and the parent-child relationship. The focus group data explained how the program

facilitates processes that encourage both appropriate parenting approaches and positive child development. The facilitation style described in the focus groups provided a further understanding of how a program, like PCMG, facilitates adult learning outside of traditional teaching methods (ie. Classroom, lecture based, expert led). Further insights into the processes taking place in the program that facilitate learning can be explained by Vygotsky's theory of learning, which is explored below. Additional findings from the present study include the exploration of emotion regulation and how the program seems to encourage an almost meditative or mindful approach to parents dealing with stressful situations. Finally, other research had indicated that the creation of a social support network was important to PCMG participants (Formosa, et al., 2003), however, the present study went further through the qualitative evidence to find instances of how those social connections impacted participants, families and the community. Additional, or unexpected, evidence expanded the conceptual model created for this study to include social support as an important process that creates change that the program facilitates (see Figure 3 in appendix).

The present study helped build a greater understanding of how the PCMG program facilitates outcomes through exploring the perspectives and experience of both facilitators and current program participants. It was the first study to quantitatively study emotion regulation in parents and use a focus group method to gather data from current and past facilitators. Both of these additional methods add to the understanding of how the PCMG program influences participants, especially the focus group data which provided a rich, in depth, and historical account of how the program impacts participants, families and the community.

The following chapter will review both the qualitative and quantitative results and provide interpretation and implications to the program and community. Limitations to the study, future research, and program and policy implications will also be discussed.

Discussion of Findings

Parent Self-Efficacy: The results from the focus groups and the Parenting Sense of Competence (PSOC) questionnaire seem to indicate that there are some positive changes to parental self-efficacy in those who participate in the program. Facilitators observed several instances where parent's self-efficacy increased through the way they interacted with and advocated for their child(ren). During the focus groups, self-efficacy was talked about as

"confidence." The distinction between self-efficacy and confidence is that parents can be more or less confident in very specific tasks or situations, yet still not accomplish their tasks adequately, which is a key feature of parental self-efficacy (De Montigny & Lacharite, 2005). However there were clear examples of where the facilitators observed that parents not only had a sense of competence, but also accomplished their goals as a parent and were proud of themselves, indicating more than just confidence, but also self-efficacy (competence) and satisfaction in their parenting abilities. The way in which the program facilitates self-efficacy is through both its teaching style and learned strategies for parents. The latter, was discussed often in the focus groups as a "tool box" that parents can pull from when they need it. The more strategies parents have at their disposal the better equipped they are at dealing with stressful environments such as a grocery store, doctors office or a long road trip, just to name a few examples from the focus group. The former suggestion, that the program facilitates self-efficacy through the teaching styles was also heavily discussed in the focus groups and helps explain the quantitative results. Data from the questionnaires found a significant increase in pre- and post-test PSOC scores in all participants and in those who had previously participated in the PCMG program. Although no comparison group was used, this is still a promising result. One way to interpret these results is to appreciate how the parents are understanding and incorporating the teachings of the program. Vygotsky's theory of learning, as it extends to adults, suggests that the sociocultural environment plays a significant role in the way adults learn through an almost guided apprenticeship model (Bonk & Kyung, 2013). In this sense, the PCMG program may be a "learning community" where the facilitators emphasize "dialogue, teacher co-learning, peer collaborations, questioning, students bringing knowledge to class and joint knowledge construction" (Bonk & Kyung, 2013; p. 69). Results from the focus group lend themselves to this theory of learning. Facilitators in the focus groups expressed that parents learn from each other and from the facilitators. Parents would share their own stories and songs with the group and discuss their questions or concerns, mostly during the phone calls with facilitators. Other research has shown that programs and interventions can impact a parent's self- efficacy through providing instruction on parenting tasks, modeling appropriate parenting behavior, cognitive behavior changes in believing in their parenting skills, education on child development, and strategies to improve parent-child relationships (Children of Parents with a Mental Illness, n.d.; Mendel, et al., 2012; Wittkowski,

et al., 2016). Specific music interventions—similar to PCMG—aimed at parents and families have found similar positive impacts to parenting competencies and improved parent-child interactions (Jacobsen, et al., 2014). Quantitative evidence also verifies that social support systems can be a predictive variable to maternal sense of competence (Ngai, et al., 2010). It would appear that the PCMG program enhances the learning experience and thus parent self-efficacy, through its deliberate facilitation style of hands on, peer-to-peer and teacher co-learning methods in combination with modeling techniques, follow-up dialogue, and encouraging parents to share their experiences and stories.

The facilitation style of the program seems to also effect those who are more familiar with the format of the program (repeated exposure) as opposed to those new to it. The quantitative results found that those who had participated before in the program saw a significant increase in their pre- and post-test self-efficacy scores, as compared to those who had never participated. Interestingly, when looking only at the pre-test data, those who had never participated before came into the program with a higher sense of self-efficacy than those who had been in the program at least once before. This is a repeated result from the focus groups as facilitators noted, that they would see the biggest differences in parents who had attended for 30 weeks, in both their confidence and emotion regulation. A greater dosage or exposure to the program, may actually suggest that parents who have been to the program before might be more aware of their parenting abilities and the impacts the program has on them as they work through the ten weeks then those who are new to the program. In her study, Scharfe (2011) using a comparison group, found similar results in an increase in parents self-efficacy, including finding significant results in the six month follow up survey. It is unclear as to why the results of this study differ from Scharfe (2011), who did not find immediate changes in parenting sense of competence from T1 to T2. However, this study can add to Scharfe's claim that the program continues to influence the parent-child relationship at least six months after. In addition, repeated exposure to the program also contributes to parents positive sense of ability and competence to parent their child and increases their satisfaction in that relationship. Positive results related to exposure to the program and delayed follow-up results from Scharfe's (2011) study are not surprising given other studies on parenting programs have found the same positive results as they relate to parent self-efficacy (Wittkowski, et al., 2016), namely a delayed improvement effect. As

discussed earlier, regarding adult learning theories (Bonk & Kyung, 2013), parents who are familiar with this type of learning environment, may pick up on the benefits of the program quicker than those who are not, as they do not have to spend as much time incorporating their thoughts and experiences together to understand and use the concepts they have learned.

This study, much like Scharfe's (2011) results, shows the impacts PCMG has on parent self-efficacy which is related to several positive outcomes of parent-child interactions. Research indicates that the parenting self-efficacy the PCMG program is promoting, helps increase the quality of parenting and interactions with their child(ren) (Jones & Prinz, 2005; Mendel, et al., 2012). Parental self-efficacy has been shown to act as a buffer against parent stress, which is linked to parent behavior and child functioning (Bloomfield & Kendall, 2012). Parenting self-efficacy is also related to parent's self-esteem and the way they perceive their own child's temperament (Hess, Teti, & Hussey-Garder, 2004; Verhage, et al., 2013). Other research has found a link between parent self-efficacy and sensitive responsiveness (Jones & Prinz, 2005). This type of warm, responsive parenting has been found to interact with attachment security as a moderating factor (Thompson, 2008). Some research has also found that parents who have high self-efficacy also have developed more coping strategies that they use to regulate their own emotions, where-as those who report lower self-efficacy are more prone to depression, passive coping strategies and stress (Jones & Prinz, 2005, Ngai, et al., 2010). In addition, similar programs that teach mothers to sing songs to their child(ren) have found an increase in maternal knowledge and appropriate responsiveness to their child(ren) due to the program (Vlismas & Bowes, 1999; Baker & MacKinlay, 2006). This research also reported an increase in the satisfaction of the mother-child relationship and reported an increase in positive and mutually beneficial interactions. Still other programs have found that changes in parent self-efficacy can predict changes in parenting behaviour such as the decreased use of inept discipline (Dekovic, Asscher, Hermanns, Reitz, Prinzie, & van der Akker, 2010). Ultimately, increasing parent self-efficacy, as the PCMG program appears to do, helps the parents cope with their role, improves parent-child interactions and promotes positive child development and security attachment.

PCMG and Emotion Regulation: The data that explored emotion regulation had promising results, the strongest of which came from the focus groups. Facilitators provided many examples of how parents who participated in the program would use their learnings to help with

their own emotion regulation. Often, the stories included mothers realizing how much better they would feel after singing, regardless of if their baby had calmed down. One of the strongest quotes, "I sing more, I yell less," was so powerful that it influenced the questions for the quantitative measurements. Roemer, Williston and Rollins (2015) in their review of emotion regulation found that mindfulness (acceptance and awareness of the current moment) is associated with enhanced and positive emotion regulation. Empirical studies have found that engaging with music and singing as an emotion regulation strategy will enhance well-being, through habitual use, similar to the concept of meditation (Chin & Rickard, 2013). The qualitative data from the focus groups of this study have several stories that provide evidence of the meditative/mindfulness features of singing for the parents. Koole and Aldao (2016) also concluded that the ability to have and use several emotion regulation strategies is linked to more positive emotion regulation. The PCMG program, through its facilitation, introduces several techniques to play, sing and bond with children, along with reflecting on how these techniques not only calm the child but also the parent.

The qualitative and a few individual questions within the quantitative data suggest that more exposure to the program may influence emotion regulation outcomes for participants. In addition, the study found a quantitative relationship between emotion regulation and attachment, which is similar to other research that considers emotion regulation in parents as an important influence on secure attachment in children (Cassidy, 2016; Thompson, 2008; Leerkes, et al., 2011; Biringen, 2000). Other studies have shown the importance of mothers' acceptance and understanding of their own emotions and the connections to them interpreting their children's behaviours (Waters, 2010; Morelen, Shaffer, Suveg, 2016).

One reason the quantitative results differed from the qualitative results could be the number of participants and their demographics. First, as indicated in the focus groups, facilitators would notice a greater understanding of emotion regulation in parents who had attended the program three or more times. When looking at the quantitative data, only 22 participants had identified attending the program three or more times. This may not have been enough participants to see significant results. Studies from the National Institute of Child Health and Human Development, a longitudinal database that has followed over a thousand children as they developed into adults, have found links between secure attachment and parental emotional

regulation (Thompson, 2008). Furthermore, an exploration of the data revealed that there was a difference in emotion regulation scores between young moms (<=23 years old) and older moms (>=24 years old). Although the findings could not confirm if the program made an impact on either of these two groups, again, perhaps due to the small number of participants in each group; it does suggest that older moms may already have greater emotion regulation strategies and that a program such as PCMG may not impact them significantly. By reversing this idea, there may also be a chance that the program could have a greater impact on young moms for their emotion regulation, and further research would be interesting.

Evidence has shown programs that teach and support parents in learning emotion regulation strategies have a benefit to children and families. Adults who can successfully regulate their emotions can achieve greater relationships and success with goals that they set for themselves (Koole & Aldao, 2016). There are clear links in the literature between emotion regulation and positive mental health, including the ability to cope with stress easier, make sound decisions, and build and enhance social relationships (DeSteno & Gross, 2013). As it relates to parent-child relationships, research has found that mothers who are better able to express and accept their own emotions are better able to respond appropriately to their child's cues (DeOliveira, et al., 2005; Leerkes & Crockenberg, 2006). Emotion regulation in mothers has also been shown to have positive effects on children's own emotion regulation (Meyers, Raikes, Virmani, Waters, Thompson, 2014). Children who can express both positive and negative emotions, appropriately, have positive emotional development and socialization (Pauli-Pott & Mertesacker, 2009). Whereas, children who are exposed to persistent negative emotions such as anger and anxiety are found to have relational and affective problems as they develop and are more likely to have an insecure attachment to their caregiver (Newton & Thompson, 2010; Leerkes, et al., 2011). The ability to regulate emotions is not only important to adults, but as parents, their regulation strategies allow them to have a more positive interactions with their children and pass the same strategies onto them as they grow and develop into healthy and productive adults. Given the current research, the qualitative findings associated with the PCMG program and emotion regulation are promising but still need further research.

PCMG and Attachment: Similar to the emotion regulation results, the attachment findings were encouraging, yet need further exploration. The qualitative data did not use the term

attachment, yet facilitators still discussed the "bond" or positive interactions that the program promotes which were interpreted as a way to describe a parent-child relationship that encourages secure attachment. Unfortunately, no significant changes were found with the quantitative attachment data. This finding must be noted with caution as the attachment scores recorded in this present study may have started too high to see a significant change from pre- to post-test. This could be a likely possibility given that the attachment scores in both pre- and post-tests skewed heavily to the high end of the attachment scale and the demographics of the participants may indicate their children have secure attachment styles. In some intervention studies, children of mother's at greater risk (examples of risk include: mothers who are less secure, have mental health issues, and/or live in poverty) see greater changes in their attachment styles (Berlin, Zeanah, & Lieberman, 2016). The current study did not ask for security levels, mental health status or income, however, the participants were mostly Caucasian and married, living in a community that on average, has a lower prevalence of children under the age of six in households of low income as compared to the national average (Stats Canada, 2011). If those who are more at risk receive greater benefits from attachment-based programs, perhaps, those who participated in this study, were simply not the target group that would normally see significant results. Another explanation of the current study's results is the time between pre- and post test may not have been long enough to see change. In a previous study, children whose mothers attended the PCMG program had reported significant changes in their attachment styles between the beginning of the program and the six moth follow-up test whereas the comparison group did not see these changes (Scharfe, 2011). These latent results may explain why the current study did not find any results with the attachment measures, as it may take time for the program to influence attachment styles

      Regardless of the target population or the time it takes too see changes in attachment, research still has shown that programs that target attachment, or use psycho-educational methods for parents, influence a child's level of security, depending on the age of the child (Rutter & Azis-Clauson, 2016). There is a fair bit of research that identifies the factors in programs and interventions that make them successful at promoting parent-child relationships and secure attachment (Berlin, et al., 2016). Such factors directed at the parents include, but are not limited to; promoting sensitive responses to their children (Huber, et al., 2016); increasing parenting

knowledge and competencies (Mendel, et al., 2012); teaching or modeling appropriate emotional expressiveness or responsiveness (Milligan, et al., 2003; Nicolson, et al., 2014); provide homework or encouragement to try learnings at home (Allen, et al., 2014); and modeling or teaching parents ways to bond with their children (in some cases through music and movement) (Baker & MacKinlay, 2006). Almost all of these techniques were discussed in the focus groups through specific examples of what makes the program unique to participants' success stories. Through modeling and other subtle teaching techniques, the facilitators engage participants in learning new or different parenting strategies. They often provided examples of, or feedback, on ways to read and sensitively respond to their children's cues. This is important to note, as parental sensitivity was not explored in this study. Although not causally linked, Thompson's (2008) work does suggest that positive parent-child relationships, as defined by maternal sensitivity, influences attachment security in a child. In their review of studies that used the National Institute of Child Health and Human Development data, Freidman and Boyle (2008) also found that maternal sensitivity was a predictor of secure attachment and that maternal sensitivity during distress was associated with increased odds of a child being securely attached. Another study found that insecure children had better outcomes when maternal sensitivity was increased, suggesting that maternal sensitivity training could help improve outcomes and reduce risk factors (Belsky & Fearon 2002). Research completed later, found similar results when looking at the child's ability to self-regulate. The preliminary qualitative evidence from the current study, suggests the PCMG program teaches parents to respond sensitively to their child(ren). This could be further explored in future studies to provide more evidence that the PCMG program can enable attachment security in children.

Given the results from the focus groups, it appears that the way the PCMG program is facilitated, one should see a change in attachment styles. However, research has shown that it is fairly difficult to measure attachment (Friedman & Boyle, 2008), especially with self-reporting measures. If more sensitive measures or a follow-up questionnaire was completed, perhaps the current study would have found different results. Regardless, the PCMG program will continue to host families and promote positive parenting practices which hopefully lead to more secure attachments in participants. This is important for the families, as parenting styles that promote secure attachment have benefits to children such as stress reduction and greater emotional

regulation (Miller & Commons, 2012). As children develop, a secure attachment to their primary caregiver will help them maintain successful relationships with peers and other adults (Englund, Kou, Puig & Collins, 2011), increase their self-esteem (Wearden, et al., 2008), and enhance their conscience development and pro-social behaviour (Shaver, Mikulincer, Gross, Stern, Cassidy, 2016). For children who do not have a secure attachment to their primary caregiver, research shows a link between insecure attachment and adult psychopathology. The strongest links are found between disorganized attachment and dissociative disorders (a severe psychopathology that can involve a disassociation with ones identity, memory and/or consciousness) and resistant attachment and anxiety disorders in adolescents (Stovall-McClough & Dozier, 2016). The same authors also found links between insecure attachment styles and several other mental illnesses such as depression, addictions and personality disorders. However, it is noted that insecure attachment does not necessarily cause mental disorders, but it may contribute or trigger psychopathologies in people. In addition to mental health issues, insecure attachment has been associated with marriage dissatisfaction and divorce (Feeney & Monin, 2016). One study found that couples with high levels of anxious attachment styles tended to report more dissatisfaction in their relationships, yet they stay together in fear of abandonment. Whereas, higher levels of avoidant attachment styles seem to predict multiple relationships/marriages in those individuals (Feeney & Monin, 2016). Ultimately, attachment theory has been researched since the 1980's and there is ample evidence as to why secure attachment styles are important to children, families and society. Children who grow up with the understanding that their parent(s) will consistently respond to their needs and be there when they are distressed are better positioned to develop their own coping strategies and trust others as they begin to develop relationships outside of the family. Given the many benefits of secure attachment, and the notable qualitative findings in the current study, any further research should continue to explore the impact the PCMG program has on attachment.

PCMG and Unexpected Findings:

PCMG and Social Support Networks: It is important to note, that the focus groups explored the influence PCMG facilitators had on creating social support systems that could support parent-child relationships. Some of the PCMG research has looked at social support qualitatively (Formosa, et al., 2003; Carroll, 2005) and found that participants felt more

connected to their community through the program. The quantitative results found that the PCMG program may also support moms who are new to the community and mothers with more than one child in terms of their parental self-efficacy. This supports other research which indicates that parenting programs can, not only increase positive parenting behaviours, but also increase involvement in the community and reduce isolation (Niec, Hemme, &Yopp, 2005). Factors, such as the positive social support and the environment families live in, can contribute positively to parental approach to attachment and can impact the parent-child relationship (Green, Furrer, McAllister, 2007). Many facilitators indicated that the PCMG program helped participants build a community of support from other parents attending the program. This current study found that facilitators in Fort Saskatchewan also provided extended support to participants through the phone calls and by being present in the community. Another study, that looked at the Triple P parenting program, also found that the delivery method of phone calls added to the benefits of the program and saw greater results (Sanders, Kirby, Tellegen, & Day, 2014). Interestingly, the findings from the focus group regarding the community connection were echoed in an evaluation of the PCMG program in Vancouver (Formosa, et al., 2003).

In other reviewed studies, social network variables accounted for 20% of the variance in the children's attachment patterns (Verhage, et al., 2016). Researchers have proposed that although there is evidence that attachment patterns can be transmitted through the generations, the ecological context can reduce or constrain this intergenerational transmission (Verhage, et al., 2016). Byrne, Goshin and Joest, (2010) examined incarcerated mothers who co-resided with their babies and received intervention in the nursery setting. They compared these mothers to those who re-entered the community early with their baby. Results indicated that 56% of intervention group mothers who had insecure attachment representations ended up having secure infants. Further research also compliments these connections between social support and attachment. A study of 152 parents with young children found that mothers with more social support tended to have a more secure attachment style (Green, et al., 2007). Within the literature review, Green, et al. (2007) found more evidence to suggest that an increase in social support systems can actually positively change an adult's attachment style. Another source of social support can come from a positive intervening relationship. Researchers found exposure to positive relationships as adults to be a moderating variable against negative childhood

experiences (Leerkes & Crockenberg, 2006). They also concluded that these findings "provide additional support for the use of attachment-oriented interventions aimed at altering how mothers view themselves, their past relationships, and the needs of others, to enhance these emotional competencies and maternal sensitivity to infant distress." (Leerkes & Crockenberg, 2006 p. 424). Research on the group based program, Parent-Child Interaction Therapy (PCIT), suggests that parenting programs and therapies that utilize group therapy or treatment, can increase attendance and engagement, create a space where parents can learn from and collaborate with each other, and reduce community isolation (Niec, et al., 2005) .

Previous research, and the fact that facilitators often gave examples of social networks created through the program for them and their participants, is an indication that PCMG can promote social supports for parents. This may explain why many PCMG program participants often attend the program many times. Greater effects based on program exposure may also be mediated by this variable of social support. Regardless, the PCMG program clearly has an important presence in the community of Fort Saskatchewan and the social systems it creates can perhaps account for the other benefits facilitators and parents express, such as an increase in self-efficacy and more positive parent-child relationships.

Role of the Facilitator: Another finding that was not directly examined was the role of the facilitator in addition to program content. During the focus groups it became very clear that the facilitators played a significant role in the program achieving its outcomes. Facilitators created a safe and trusting space for parents to learn from their mistakes and from the experience of others. Many facilitators noted that the program trains parents to enjoy and enhance their relationship with their infant or toddler. Not only that, stories of dads and grandparents using the songs taught to the mothers, indicated that the mothers practiced their learnings in the home and with family members. The role of the facilitator in promoting positive parent-child relationships was evident with the stories shared in the focus groups. Facilitators spoke of tactics such as modeling parenting techniques in a subtle, non-preachy approach and demonstrating that nobody is perfect through their own mistakes. Carroll (2005) found similar results while interviewing participants of the PCMG program. This is not surprising, as the literature indicates that many of the tactics PCMG facilitators use (subtle teaching methods, creating safe space to learn, model nobody's perfect, agility and flexibility) can increase program completion rates, facilitate

learning and skill building, change behaviours, and engage hard to reach participants (Axford, et al., 2012; Mills, Schmied, Taylor, Dahlen, Schuiringa, Hudson, 2012; Chablani & Spinney, 2011; Evangelou, Coxon, Sylva, Smith, & Chan, 2013).

When exploring other programs and interventions, the facilitator's role is not always well developed, especially in community-based programs. However, more intensive therapies do make similar connections to the therapist or facilitator and outcomes of the intervention. In the case of music therapy, Edwards (2011) summarizes the theories and research on music therapy and how it promotes healthy and secure parent-infant relationships. PCMG program facilitators are trained and facilitate the program in a way that results in what the author sees as the outcome for a music therapist: "A qualified music therapist can work in gentle non-intrusive ways to help parents and their infants discover and strengthen their capacity for relating through the musical play that is part of the usual repertory of parent-infant interactions" (p. 14). Other literature has indicated that a therapist can take on several roles including teacher, mentor, friend and advocate (Niec, et al., 2005). Researchers have found through case reviews, some key ways programs have increased retention and engagement, much of which facilitators of the PCMG program described (Axford, et al., 2012). These included: building relationships and trust with parents; addressing concerns parents have such as how they may be judged by others; and as much as possible, address the needs of parents, especially with regards to accessing the program.

These really resonate with how the PCMG facilitators described their role and the program. They would often describe the program, not as parent training, but simply as "fun," of a way to" bond with you child" to those who asked. The phone calls also provided participants an opportunity to discuss their concerns or needs and in some cases the facilitators were able to help, or at least comfort them. Even more recent research continues to emphasize the need for the practitioner/therapist to build relationships and trust with parents, through sharing experiences and facilitate learning, through modeling positive parenting behavours (Mills, et al., 2012). The tactics that facilitators use for the PCMG program are very similar to the role of therapists, interventionists, and facilitators of other parenting programs that promote positive parent-child relationships. As reviewed in the literature chapter, this is very evident in studies that explore the influence of music therapy and therapists on parent-child relationships and attachment. The repetition of learning, mimics the repetition of songs and activities encouraged between parent

and child, which helps cement the parent-child relationships (Berry, 2001; Edwards, 2011). PCMG facilitators, just like music therapists, encourage parents to learn, explore and bond with their child, through non-intrusive and gentle teaching and coaching within the context of playing and singing to their children. Ultimately, parents could learn new songs, rhymes and stories to tell their baby or child through books, friends and the internet, however, many still come to the PCMG program to learn. What many do not realize, is that they learn much more while they attend, and the facilitators are the ones who engage, teach, and model these learnings through the context of singing songs and telling stories.

Both the role of the facilitator and the social support results lend themselves to be interpreted through Vygotsky's learning theory as applied to adult learning. Vygotsky stressed that social interaction and exchanges in children help develop speech and thought processes (Miller, 2002). Children learn through the guidance and observation of adults or more competent peers. Adapting this concept to adult learning has been done, as adults can still use social exchanges through teachers and peers to learn new concepts, reflect on their thoughts and experience, and retain information (Trusting & Barton, 2003). Adult learning principles have incorporated several concepts from Vygotsky and other social construction theorists, including the idea of scaffolding. As a teaching method, scaffolding incorporates a number of strategies to help a person achieve a task or solve a problem by breaking down the task into easier steps, encouragement, and modeling success (Bonk & Kim, 2011). In the case of the PCMG program, both facilitators and other participants act as guides or models that parents can learn from. The program provides ample opportunity for participants to practice what they learn and encourage others to share their successes; the facilitators provide guidance in parenting practices when appropriate. It would appear that this feature of the program facilitates learning, and perhaps can explain the positive results from the quantitative data for parenting self-efficacy. Moreover, this connection to social interactionism and adult learning theory would provide an interesting framework for future research, on the PCMG program, in relation to the teaching and learning processes.

Limitations

This study had some limitations that could explain the contradictory results found between the qualitative and quantitative data. First, the quantitative data was collected through a

self-report measure which inherently increases issues such as social desirability bias, where the respondent answers the questions based on how they think they should, to make their responses conform to social norms (Neuman, 2006). Although the questionnaires asked participants to answer truthfully and the researcher emphasized the anonymous nature of the study, participants were still answering socially sensitive questions about how they think and feel about their child, their parenting abilities and their emotion regulation. There may have also been a response shift bias, where participants overestimated their own or childs' abilities in the pre-test and reassessed at a lower or similar score after finishing the program (Howard, 1980). Using a retrospective pre-post design is a possible solution for future research where in the post-test, participants would rate where they were before and after the program (Galovan & Schramm, 2017) . In relation, the focus groups may have suffered from facilitator bias to promote the PCMG program. Many of the stories were positive, and only the uncomfortableness of some facilitation techniques (for example the phone calls) were the only negatively described attributes of the program.

Another limitation for the quantitative questionnaires was the creation of a self-report attachment questionnaire. Self-report measures for attachment security have been used with varying results. The attachment questionnaire was based off of the Q-sort method by Waters and Deane (1985) which was tested for reliability and validity. Waters and Deane used the strange situation observation guide to develop an attachment Q-sort observation tool to assess mother and child interactions in natural settings (Waters & Deane 1985). The attachment Q-sort allowed for a more economical and natural way to assess attachment behaviours and security. Other studies created self-report attachment measures from this Q-sort method (Scharfe, 2011; Robinson, et al.,1996), but neither survey has been tested for reliability or validity. Observational methods implemented by trained researchers, seem to still be the standard for measuring attachment. However, there is an acknowledgement of the need for more 'efficient' measures such as survey's and questionnaires that can be used for large scale research initiatives or intervention based studies (Solomon & George, 2016). The current study attempted to create an attachment measurement, that could be easily administered, with varying results. The data collected produced a Chronbach's Alpha of .681 and the post-test data had a score of .781. This indicates that the pre-test data may not be statistically reliable, which may explain the lack of significant results. However, some individual questions are worth further exploring and future

research into self-report measures of attachment would be useful as a cost and time effective way to measure security in children.

Next, participant recruitment and retention was also an issue for this study. The original study design included a comparison group to help strengthen the conclusions from the data. However, it was difficult to recruit comparison group participants for a couple of reasons. First, Fort Saskatchewan Families First Society (FSFFS) typically does not have a waitlist as they would try to host as many PCMG sessions as needed to accommodate all applications to the program. Scharfe's (2011) study included a comparison group, however, her study site was much larger (Toronto) and typically hosted a wait list of 100-120 people. In Fort Saskatchewan, the few families that had to wait, would often be referred to another program, such as a family kitchen program or a drop in play program, both of which are influenced by the PCMG philosophy. Which led to the second barrier to recruit a comparison group, which was that all programs offered by FSFFS and surrounding communities were influenced by PCMG philosophy and therefore would confound the results. Without a comparison group, all conclusions made from this study can only make a link between the program and variables such as parental self-efficacy.

Summary

Given the significant quantitative results in parent-self efficacy, and the promising qualitative results regarding emotion regulation, attachment and social support, the PCMG program appeared to impact parent-child relationships by supporting the parents as they interact with their child(ren) during and outside of the program. Further correlational findings in the quantitative data seem to indicate that parent efficacy may influence whether parents report more secure attachment behaviours in their children, or vice versa. Belsky (1984) theorized that when you place attachment theory within ecological models of parent-child relationships and child development, attachment becomes a dependent variable for which external factors such as the parent's own personality, sensitivity and social support can impact the patterns of parent-child relations and thus, attachment. Therefore, it is not surprising that the variables of attachment security and PSOC scores are found significantly related. Similarly, this study found a link between attachment and emotion regulation which may suggest that those who feel they have access to emotion regulation strategies may also report their child as being more securely

attached. Again, this linkage is not surprising since, previous research has found a relationship between parent emotion regulation and child attachment security (Cassidy, 2016; Thompson, 2008; Newton & Thompson, 2010). The data collected from the focus groups supported many of research questions and found unexpected results that helped further explain the processes impacting participants of the PCMG program The qualitative results allowed for further theoretical interpretation of the exact processes (adult learning and mindfulness with respect of parent-self efficacy and emotion regulation) working between the program and participants. Combining the results from the mixed methods provided a richer picture of how the PCMG program promotes positive parent-child relationships.

There are many reasons why a positive and strong parent-child relationship is important for the parent, the child, the family and the community. Much like the literature that supports secure attachment, children with positive relationships with their parents tend to form and maintain successful relationships both with peers and with authority figures as they grow (Englund, et al., 2011; Grusec, 20110). In addition, children with positive relationships with their parents tend to have greater problem solving skills, desirable personality traits, positive self-regard, enhanced coping strategies (Thompson, 2008; Wearden, et al. 2008; Englund, et al. 2011). Programs that support and influence positive parent-child relationships are always in demand, especially for vulnerable or at risk children and families (Thompson, 2008, Berlin, et al., 2008; Berlin, et al., 2016). Community-based, group programs have also seen a shift in demand as more evidence surfaces of the benefits of such cost-effective programming (Berlin, et al.,2016). The PCMG program is one such program; it is easier and cheaper to administer than an intensive, expert-driven, therapy program, and still provides benefits to participants.

The benefits of effective, and cost-efficient programming for families has implications for program and policy planning. In the context of Alberta, significant time and money has been invested, not only in programs and services that support families, but also in planning and policy development. In 2013 the Government of Alberta published their Social Policy Framework that identified early childhood development as a priority for social policy (Government of Alberta, 2013a). From this, the "Together we Raise Tomorrow" initiative (Government of Alberta, 2013b) emphasized the need for parents to provide nurturing and stable environments for their children, along with communities that were supportive for children and families. Actions were

identified to achieve these goals, they included, but were not limited to providing parents access to "early years information and practical tools that help support their child's development," and to "collaborate with communities to develop a cohesive and accessible system of neighbourhood supports where families can get the right supports at the times they need it most." (p. 5) The Alberta Government continues to follow similar social policy approaches and invest in early intervention services for children and foundational learning supports for adults (Government of Alberta, 2017). Research that shows the benefits to program participants and the community, helps reinforce the importance and continued need for government to support such programs through policy and finances.

Given the direction and emphasis the Alberta Government has placed on supporting parents and children through community programs, research exploring the impact of such programs is important, not only to the program providers, but also to the funders. Results from this study and others suggest that PCMG program supports parents and young families by influencing parenting approaches and positive parent-child relationships. Information gathered from this study will be used by Fort Saskatchewan Families First Society (FSFFS) for planning and funding their PCMG program and other programs. One conclusion from the present study is that it is not necessarily the content of the PCMG program (the songs, stories and rhymes) that is impacting participants, but the way in which it is facilitated and the underlying parent teachings and opportunities to interact with their children and other parents that is making a difference. Interestingly, FSFFS already infuses the PCMG program teaching philosophy into many of their other programs and services. Therefore, FSFFS may see similar results with their other programs, which increases their reach and impact in the community. FSFFS may also want to use these results to improve their programming. This could come in the form of targeted marketing for families in need of this type of program or additional training information for facilitators. For example, new facilitators might benefit from the stories and experiences summarized from the focus groups, especially when looking for opportunities to engage with parents and exploring the impact different teaching methods have.

Further research and evaluation on the PCMG program, and other FSFFS programs influenced by PCMG, will hopefully continue and find further evidence that supports current and future directions for the community to set policy. There are several areas future researchers could

explore with the PCMG program. These include: parental sensitivity; adult learning processes in social contexts; continued exploration of emotion regulation for parents; and long term outcomes for the parents, children and families who attend the program. Additional literature research in the realms of emotion regulation and adult learning strategies may also help inform and refine the PCMG program and training curriculum. For the time being, the PCMG program can continue to provide parents the skills, knowledge, strategies, and community support to feel confident in their parenting abilities and regulate their own emotions, which can positively influence the parent-child relationship and produce healthier families within the community.

Bibliography

Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment: a psychological study of the strange situation.* Hillsdale, NJ: Erlbaum.

Ainsworth, M. (1985). Patterns of infant-mother attachment, parent emotion and effects on development. *Bulletin of the New York Academy of Medicine, 61,* 771-791.

Ainsworth, M. (2010). Security and attachment. In Volpe, R. (Ed.), *The Secure Child: Timeless Lessons in Parenting and Childhood Education.* (pp. 43-53). Charlotte, NC:IAP Information Age Publishing.

Ardelt, M. & Eccles, J. (2001). Effects of mothers' parental efficacy beliefs and promotive parenting strategies on inner-city youth. *Journal of Family Issues, 22*(8).

Axford, N., Lehtonen, M., Kaoukji, D., Tobin, K., & Berry, V. (2012). Engaging parents in parenting programs: lessons from research and practice. *Children and Youth Services Review, 34,* pp. 2061-2071.

Baker, F., & MacKinlay, E. (2006).Sing, soothe and sleep: a lullaby education programme for first-time mothers. *British Journal of Music Education, 23*(2).

Belsky, J. (1984). The determinants of parenting: a process model. *Child Development, 55*, 83-96.

Belsky, J. (1999). Interactional and contextual determinants of security. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment; Theory, Research and Clinical Applications*. (pp. 249-264) New York: The Guilford Press.

Belsky, J., & Fearon, R.M.P. (2002). Infant–mother attachment security, contextual risk, and early development: A moderational analysis. *Development and Psychopathology*,14, 293–310.

Belsky, J., & Fearon, R.M.P. (2008). Precursors of attachment security. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 295-316). New York: Guilford Press.

Belsky, J. (2014). Social contextual determinants of parenting. *Encyclopedia on Early Childhood Development.* Retrieved from: https://pdfs.semanticscholar.org/ec2e/6646a4637f446aff440b8fcf41f054198891.pdf

Benjamin, L. (2012). Nonprofit organizations and outcome measurement: from tracking program

activities to focusing on frontline work. *American Journal of Evaluation, 33*(3).

Benoit, D. (1999-2000). Attachment and regulation. *Newsletter of the Infant Mental Health Promotion Project, 26,* 1-2.

Berlin, L., Zeanah, C., & Lieberman, A. (2008). Prevention and intervention programs for supporting early attachment security. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (2nd ed., pp. 958-974). New York: Guilford.

Berlin, L., Zeanah, C., & Lieberman, A. (2016). Prevention and intervention programs for supporting early attachment security: a move to the level of the community. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (3rd ed., pp. 739-758). New York: Guilford.

Berry, S. (2001). The contribution of rhymes to early social-emotional development. *Newsletter of the Infant Mental Health Promotion Project, 31.*

Biringen, Z. (2000). Emotional availability: conceptualization and research findings. *American Journal of Orthopsychiratry*, *70*(1).

Bonk, C. & Kyung, K. (2013). Extending sociocultural theory to adult learning. In Smith, S. & Pourchot, T. (Eds.), *Adult Learning and Development: Perspectives From Educational Psychology.* (pp.67-88) New York: Routledge.

Bowlby, J. (1958). The nature of the child's tie to his mother. *The International Journal of Psychoanalysis, 39,* 350-373.

Bowlby J, (1969) Attachment and loss. In *Attachment* (Vol. 1). New York: Basic Books.

Bradbury, B. (2011). Young motherhood and child outcomes. Retrieved from University of New South Wales, Social Policy Research Centre website: https://www.sprc.unsw.edu.au/media/SPRCFile/2011_1_Report1_11_YoungMotherhood.pdf

Bretherton, I. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology, 28,* 759–775.

Bronfenbrenner, U. (1979). *The ecology of human development.* Cambridge. MA: Harvard University Press.

Bronfenbrenner, U. (1993). Ecological models of human development. In *International*

Encyclopedia of Education (Vol. 3, 2ⁿᵈ ed.). Oxford: Elsevier.

Bronfenbrenner, U. & Morris, P. (2006). The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology, Vol. 1: Theoretical models of human development* (6th ed., pp. 793-828). New York: John Wiley.

Burrell, M. (2001) The benefits of music sessions for very young children with their parent or carers through the eyes of a music therapist. In Edwards, J. (Eds.), *Music Therapy and Parent-Infant Bonding* (pp. 93-100). Oxford: Oxford University Press.

Byrne, M., Goshin, L, & Joest, S. (2010). Intergenerational transmission of attachment for infants raised in a prison nursery. *Attachment & Human Development, 12,* 4.

Carroll, A. (2005). Parents' perceptions of the effects of the parent-child mother goose program on their parenting practices. (Masters Thesis). Retrieved from https://open.library.ubc.ca/cIRcle/collections/ubctheses/831/items/1.0092454

Cassidy, J. (1994). Emotion regulation: influences of attachment relationships. In N. A. Fox (Ed.), *The development of emotion regulation: Biological and behavioral considerations. Monographs of the Society for Research in Child Development*, 59, 228-249.

Cassidy, J. (2008). The nature of the child's ties. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (2nd ed., pp. 3-22). New York: Guilford.

Cassidy, J. (2016). The nature of the child's ties. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (3rd ed., pp. 3-24). New York: Guilford.

Cassidy, J., Brett, B., Gross, J., Stern, J., Martin, D., Mohr, J. & Woodhouse, S. (2017). Circle of security – parenting: a randomized controlled trial in head start. *Development and Psychopathology, 29*, 651-673.

Chablani, A. & Spinney, E. (2011) Engaging High-Risk Young Mothers Into Effective Programming: The Importance of Relationships and Relentlessness. *Journal of Family Social Work, 14*(4).

Chase, S. (2005). Narrative Inquiry: Multiple Lenses, Approaches, Voices. Denzin, N., & Lincoln, Y. (Eds). *The Sage handbook of qualitative research, 3rd ed.,* (pp. 651-679), Thousand Oaks, CA: Sage Publications Lt.

Children of Parents with a Mental Illness, (n.d.). Parental self-efficacy and competence. Retrieved from. http://www.copmi.net.au/professionals-organisations/what-works/evaluating-your-intervention/parents-carers-families/competence

Chin, T. & Rickard, N. (2013). Emotion regulation strategy mediates both positive and negative relationships between music uses and well-being. *Psychology of Music, 42*(5), 692-713.

Circle of Security International. (n.d.). Retrieved from https://www.circleofsecuritinternational.com/research-information

Coleman, P. & Karraker, K. (1997). Self-efficacy and parenting quality: findings and future applications. *Developmental Review, 18,* pp. 47-85.

Coleman, P. & Karraker, K. (2003). Maternal self-efficacy beliefs, competence in parenting, and toddlers' behavior and developmental status. *Infant Mental Health Journal, 24*(2).

Creswell, J.(2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 3rd Edition*. Los Angeles: Sage Publications, Inc.

Crittenden, P. (1985). Social networks, quality of child rearing, and child development. *Child Development, 56,* 1299-1313.

Črnčec, R., Barnett, B. & Matthey, S. (2008). Development of an instrument to assess perceived self-efficacy in the parents of infants. *Research in Nursing and Health*, 31, 442-53.

Crncec, R., Barnett, B., & Stephen M. (2010). Review of scales of parenting confidence. *Journal of Nursing Measurement, 18*(2).

Cutrona C.E. & Troutman B.R. (1986) Social support, infant temperament, and parenting self-efficacy: a mediational model of postpartum depression. *Child Development 57*, 1507–151.

Dekovic, M., Asscher, J., Hermanns, J., Reitz, Prinzie, E., van der Akker, A. (2010). Tracing changes in families who participated in the Home-Start parenting program: parental sense of competence as a mechanism of change. *Prevention Science, 11*(3).

DeLoiveira, C., Bailey, H., Moran, G., & Pederson, D. (2004). Emotion socialization as a framework for understanding the development of disorganized attachment. *Social Development, 13*(3).

de Montigny, F. & Lacharité, C. (2005). Perceived parental efficacy: Concept analysis. *Journal of Advanced Nursing, 49*, 387-96.

DeOliveira, C., Moran, G., & Pederson, D. (2005). Understanding the link between maternal adult attachment classifications and thought and feelings about emotions. *Attachment & Human Development, 7*(2).

DeStano, D. & Gross, J. (2013). Affective science and health: the importance of emotion and emotion regulation. *Health Psychology, 32*(5), 474-486.

DeWolff, M. & IJzendoorn, M. (1997). Sensitivity and attachment: a meta-analysis on parental antecedents of infant attachment. *Child Development, 68,* (4).

Dix, T. (1991). The affective organization of parenting: adaptive and maladaptive processes. *Psychological Bulletin, 110*(1).

Donovan, W. L., & Leavitt, L. A. 1989. Maternal self-efficacy and infant attachment: Integrating physiology, perceptions, and behavior. *Child Development, 60*, 460–47

Edwards, J. (2011). Music therapy and parent-infant bonding. In Edwards, J. (Eds.), *Music Therapy and Parent-Infant Bonding* (pp. 5-21). Oxford: Oxford University Press.

Englund, M., Kou, S., Puig, J., & Collins, W. (2011). Early roots of adult competence: the significance of close relationships from infancy to early adulthood. *International Journal of Behavioral Development, 35*(6), 490-496.

Evangelou, M., Coxon, K., Sylva, K., Smith, S., & Chan, L. (2013). Seeking to engage 'hard-to-reach' families: towards a transferable model of intervention. *Children and Society, 27*(2).

Faherty, V. (2008). *Compassionate Statistics: Applied Quantitative Analysis for Social Services*. California: Sage Publications, Inc.

Feeney, B. & Monin, J. (2016). Divorce through the lens of attachment theory. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (3rd ed., pp.941-965). New York: Guilford.

Fernald, A. (1989) Intonation and communicative intent in mother's speech to infants: is the melody the message? *Child Development, 60,* 1497-1510.

Friedman, S. & Boyle, E. (2008). Attachment in US children experiencing nonmaternal care in the early 1990s. *Attachment & Human Development, 10*(3).

Fort Saskatchewan Families First Society. (2016). Families First Society Fort Saskatchewan 2015-2016 Annual Report. Retrieved from

https://static1.squarespace.com/static/53d69d9de4b04ced593083e1/t/57eac4bc440243b577766818/1475003590583/AGM_2016-09-26_web.pdf

Flicker, S. (2008). Who benefits from community-based participatory research? A case study of the positive youth project. *Health Education & Behavior, 35*(1).

Formosa, S., Heinz, L. & Lieber, L. (2003). TLC3 Vancouver Project Final Report. Toronto: TLC3 National Management Project Team.

Galovan, A. & Schramm, D. (2017). Initial coparenting patterns and postdivorce parent education programming: a latent class analysis. *Journal of Divorce & Remarriage, 58*(3), 212-226.

Gardner, F. (2003). User-friendly evaluation in community-based projects. *The Canadian Journal of Program Evaluation, 18*(2).

Gilmore, L., & Cuskelly, M. (2008). Factor structure of the parenting sense of competence scale using a normative sample. Child: Care, *Health & Development*, 35, 48-55.

Government of Alberta. (2013a). Alberta's social policy framework. Retrieved from http://www.humanservices.alberta.ca/documents/spf-full-report.pdf

Government of Alberta. (2013b). Together we raise tomorrow, an Alberta approach to early childhood development. Retrieved from https://open.alberta.ca/dataset/87cc63d4-b5ac-43d1-ae9e-8b225c29727d/resource/8b966ceb-4e72-4588-bf7a-949fe9e6b63d/download/6881618-2013-Together-We-Raise-Tomorrow-Approach-Early-Childhood-Development-2013-06.pdf

Government of Alberta. (2017). Fiscal plan: expense. Retrieved from http://finance.alberta.ca/publications/budget/budget2017/fiscal-plan-expense.pdf

Gratz, K. & Roemer, L. (2003). Multidimensional assessment of emotion regulation and dysregulation: development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment, 26*(1).

Green, B., Furrer, C., & McAllister, C. (2007). How do relationships support parenting? Effects of attachment style and social support on parenting behavior in an at-risk population. *American Journal of Community Psychology, 40,* 96-108.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, 11, 255–274.

Grusec, J. 2011. Socialization processes in family: social and emotional development. *Annual Review of Psychology,* 62, 243-6 9.

Guest, G., Namey, E. & Mitchell, M. (2013). Chapter 5: focus groups. In *Collecting Qualitative Data: A Field Manual for Applied Research.* Thousand Oaks, CA: SAGE Publications, Inc.

Heiselt, A., & Sheperis, C. (2010). Mixed Methods Designs. Sheperis, C., Young, J., & Daniels, M. (Eds.). In *Counselling Research Quantitative, Qualitative and Mixed Methods*. Upper Saddle River, NJ: Pearson Education Inc.

Hess, C., Teti, D., & Hussey-Gardner, B. (2004). Self-efficacy and parenting of high risk infants: the moderating role of parent knowledge of infant development. *Applied Developmental Pyschology, 25*, 423-437.

Holmes, P., & Farnfield, S. (2014). *The Routledge handbook of attachment: implications and interventions.* London: Routledge

Howard, G. S. (1980). Response-shift bias: A problem in evaluating interventions with pre/ post self-reports. *Evaluation Review, 4*(1), 93–106.

Huber, A., McMahon, C., & Sweller, N. (2016). Improved parental emotional functioning after circle of security 20-week parent-child relationship intervention. *Journal of Child and Family Studies, 25*(8).

Jacobsen, S., McKinney, C., & Holck, U. (2014). Effects of a dyadic music therapy intervention on parent-child interaction, parent stress, and parent-child relationship in families with emotionally neglected children: a randomized controlled trial. *Journal of Music Therapy, 51*(4).

Janzen, G. (2001). The parent-child mother goose program. *Newsletter of the Infant Mental Health Promotion Project, 31.*

Johnston, C. & Mash, E.J. (1989) A measure of parenting satisfaction and efficacy. Journal of Clinical Child Psychology, 18, 167-75.

Jones, T. L. & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: a review. Clinical Psychology Review, 25, 341-63.

Joshi, A. (2006) The parent-child mother goose program: what does research tell us? Retrieved from http://nationalpcmgp.ca/wp-content/uploads/2013/01/ResearchSummaryArticlePCMGPNov06.pdf

Kuczynski, L. (2002). *Handbook of dynamics in parent-child relations.* Thousand Oaks: Sage Publications. When developing my theory model.

Kuczynski, L. (2004). *Perspectives on the parent-child relationship.* Ottawa: National Clearinghouse on Family Violence .

Koole, S. & Aldao, A. (2016). The self-regulation of emotion: theoretical and empirical advances. In Vohs, K. & Baumeister, R. (Eds.), *Handbook of Self-Regulation, Third Edition: Research, Theory and Application.* (pp. 5-21). Guilford Publications: New York.

Leerkes, E., & Crockenberg, S. (2006). Antecedents of mothers' emotional and cognitive responses to infant distress: the role of family, mother, and infant characteristics. *Infant Mental Health Journal, 27*(4).

Leerkes, E., Parade, S., & Gudmundson, J. (2011). Mothers' emotional reactions to crying pose risk for subsequent attachment insecurity. *Journal of Family Psychology, 25*(5).

Levin-Rozalis, M. (2003). Evaluation and research: Differences and similarities. *The Canadian Journal of Program Evaluation*, 18(2), 1-31.

MacKinlay, E. & Baker, F. (2005). Nurturing herself, nurturing her baby creating positive experiences for first-time mothers through lullaby singing. *Women and Music: A Journal of Gender and Culture, 9*, 69-89.

Martin, F., Cohen, N., Nerlich, E., & Heinz, L. (2004). Final report of the TLC[3] project. Retrieved from http://www.tlc3.ca/Downloads/TLC3FinalReport.pdf

Mayan, M. (2009). Method. In *Essential of Qualitative Inquiry.* (pp. 100-113). Walnut Creek, CA: Left Coast Press.

McElwain, N. & Booth-LaForce, C. (2006). Maternal sensitivity of infant distress and nondistress as predictors of infant-mother attachment security. *Journal of Family Psychology, 20*(2).

Mendel, W., Tomaselle, N., & Nochajski, T. (2012). Building evidence for a prevention-focused education program targeting parents of infants and toddlers. *Journal of Family Social Work, 15,* 272-287.

Mertens, D. (2005) Evaluation. In *Research and evaluation in education and psychology. Integrating diversity with quantitative, qualitative, and mixed methods* (2nd ed.; pp. 45-84). Thousand Oaks: Sage.

Meyers, S., Raikes, A., Virmani, E., Waters, S., & Thompson, R. (2014). Parent emotion representation and the socialization of emotion regulation in the family. International *Journal of Behavioral Development*, 38,(2).

Miller, P. & Commons, M. (2010). The benefits of attachment parenting for infants and children: a behavioral development view. *Behavioral Development Bulletin, 10.*

Milligan, K., Atkinson, L., Trehub, S., Benoit, D., & Poulton, L. (2003). Maternal attachment and the communication of emotion through song. *Infant Behavior & Development, 26,* 1-13.

Mills, A., Schmied, V., Taylor, C., Dahlen, H., Schuiringa, W., & Hudson, M. (2012). Connecting, learning, leaving: supporting young parents in the community. *Health and Social Care in the Community, 20*(6).

Minkler, M. (2005). Community-based research partnerships: challenges and opportunities. *Journal of Urban Health, 82*(Suppl 2).

Minkler, Meredith (Editor); Wallerstein, Nina (Editor). (2008). *Community-Based Participatory Research for Health : From Process to Outcom*es *(2nd Ed).* San Fransisco, CA: Jossey-Bass.

Mooney, C. Garhart. (2010). *Theories of attachment: an introduction to Bowlby, Ainsworth, Gerber, Brazelton, Kennell, and Klaus.* St. Paul, MN: Redleaf Press.

Morelen, D., Shaffer, A., & Suveg, C. (2016) Maternal emotion regulation: links to emotion parenting and child emotion regulation. *Journal of Family Issues*, 37(13).

Mouton, B. & Roskam, I. (2005). Confident mothers, easier children: a quasi-experimental manipulation of mother's self-efficacy. *Journal of Child and Family Studies, 24,* 2485-2495.

Nakata, T., & Trehub, S. (2004). Infant's responsiveness to maternal speech and singing. *Infant Behavior & Development, 27.*

National PCMG. (n.d.) The parent-child mother goose program: values. Retrieved from: http://nationalpcmgp.ca/about/history/

Neal, J. & Neal, Z. (2013) Nested or networked? Future directions for ecological systems theory. *Social Development, 22*(4), 722-737.

Newton, E. & Thompson, R. (2010). Parent's views of early social and emotional development. *Zero to Three, 30,*(4).

Neuman, W. (2006). *Social Research Methods: Qualitative and Qualitative Approaches 6th Ed.* Boston, MS: Pearson Education Inc.

Ngai, F., Chan, S., & Ip, W. (2010). Predictors and correlates of maternal role competence and satisfaction. *Nursing Research, 59*(3).

Nicholson, J., Berthelsen, D., Abad, V., Williams, K., & Bradley, J. (2008). Impact of music therapy to promote positive parenting and child development. *Journal of Health Psychology, 13*(2).

Niec, L., Hemme, J., & Yopp, J. (2005). Parent-child interaction therapy: the rewards and challenges of a group format. *Cognitive and Behavioral Practice, 12*, 133-125.

Pauli-Pott, U., & Mertesacker, B. (2009). Affect expression in mother-infant interaction and subsequent attachment development. *Infant Behavior and Development, 32,* 208-215.

Planko Clark, V. & Creswell, J. (2008). *The mixed methods reader*. Thousand Oaks, CA: Sage Publications.

City of Fort Saskatchewan. (2017) Population and Demographics. Retrieved from http://www.fortsask.ca/business/about-fort-saskatchewan/population-demographics

Robinson, J., Rankin, J., & Drotar, D. (1996). Quality of attachment as a predictor of maternal visitation to young hospitalized children. *Journal of Pediatric Psychology, 21*(3).

Roemer, L., Williston, S., & Rollins, L. (2015). Mindfulness and emotion regulation. *Current opinion in Psychology, 3*, 52-57.

Rosa, E. & Tudge, J. (2013). Urie Bronfenbrenner's theory of human development: its evolution from ecology to bioecology. *Journal of Family Theory and Review, 5*(4), 243-258.

Roulston, K. (2010). *Reflective interviewing: a guide to theory and practice*. SAGE publications Ltd. London, UK.

Rutter, M. & Azis-Clauson, C. (2016). Implications of attachment theory and research for child care policies. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (2nd ed., pp. 983-994). New York: Guilford.

Rydell, A., Bohlin, G., & Thorell, L. (2005). Representations of attachment to parents and shyness as predictors of children's relationships with teachers and peer competence in preschool. *Attachment & Human Development*, 7(2).

Sanders, M., Kirby, J., Tellegen, C., & Day, J. (2014). The triple p-positive parenting program: a systematic review and meta analysis of a multi-level system of parenting support. *Clinical Psychology Review, 34*, 337-357.

Scharfe, E. (2011). Benefits of mother goose: influence of a community-based program on parent-child attachment relationships in typical families. *Child Welfare, 90,*(5).

Shaver, P., Mikulincer, M., Gross, J., Stern, J., & Cassidy, J. (2016). A lifespan perspective on attachment and care for others. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (3rd ed., pp.878-916). New York: Guilford.

Shenfield, T., Trehub, S., & Nakata, T. (2003). Maternal singing modulates infant arousal. *Psychology of Music, 31*(4).

Smith, P. B., & Pederson, D. R. (1988). Maternal sensitivity and patterns of infant–mother attachment. *Child Development, 59,* 1097–1101.

Solomon, J. & George, C. (2016). The measurement of attachment security and related constructs in infancy and early childhood. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (3rd ed., pp. 366-396). New York: Guilford.

Stats Canada. (2011a). NHS profile, Canada, 2011. Retrieved from http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=01&Data=Count&SearchText=Canada&SearchType=Begins&SearchPR=01&A1=All&B1=All&Custom=&TABID=1

Stats Canada. (2011b). NHS, profile, Fort Saskatchewan, CY, Alberta, 2011. Retrieved from

http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=4811056&Data=Count&SearchText=Fort%20Saskatchewan&SearchType=Begins&SearchPR=01&A1=All&B1=All&GeoLevel=PR&GeoCode=4811056&TABID=1

Stovall-McClough, K., & Dozier, M. (2016). Attachment states of mind and psychopathology in adulthood. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (3rd ed., pp.715-738). New York: Guilford.

Suchman, N., Decoste, C., McMahon, T., Rounsaville, B., & Mayes, L. (2011). The mothers and toddlers program, an attachment-based parenting intervention for substance-using women: results at 6-week follow-up in a randomized clinical pilot. *Infant Mental Health Journal, 32*(4).

Tarabulsy, G. & Symons, D. (2016). Attachment theory and developmental psychology: Canadian contributions and Introduction to the special issue. *Canadian Journal of Behavioral Scitrehubence, 48*(1).

Terrett, G., White, R., & Spreckley, M. (2012). A preliminary evaluation of the Parent-Child Mother Goose program in relation to children's language and parenting stress. *Journal of Early Childhood Research, 11*(1).

Teti, D. M. & Gelfand, D. M. (1991). Behavioral competence among mothers of infants in the first year: the mediational role of maternal self-efficacy. Child Development, 62, 918-29.

The Parent-Child Mother Goose Program. (1994). *The parent-child mother goose program teacher training manual*. Toronto, ON: The Vermont Square Parent-Child Mother Goose Program.

Thompson, R. (1994). Emotion regulation: a theme in search of definition. *Monographs of the Society for Research in Child Development, 59,* 228-249.

Thompson, R. (2008). Early attachment and later development. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of Attachment: Theory, research, and clinical applications* (2nd ed., pp. 348-365). New York: Guilford.

Thornberg, R. & Charmaz, K. (2014). Chapter 11: grounded theory and theoretical coding. In Flick, U (Ed.), *The SAGE handbook of Qualitative Analysis,* London: SAGE Publications Ltd.

Trusting, K. & Barton, D. (2003). Models of adult learning: a literature review. Retrieved from National Research and Development Centre for adult literacy and numeracy: https://www.researchgate.net/profile/Karin_Tusting/publication/265993925_Models_of_adult_learning_a_literature_review/links/55f0145208ae199d47c048a1/Models-of-adult-learning-a-literature-review.pdf

Verhage, M., Oosterman, M., & Schengel, C. (2013). Parenting self-efficacy predicts perceptions of infant negative temperament characteristics, not vice versa. *Journal of Family Psychology, 27*(5), 844-849.

Verhage, M., Scuengel, C., Madigan, S., Fearon, R., Oosterman, M., Cassibba, R., Bakermans-Kranenburg, M., & van IJzendoorn, M. (2016). Narrowing the transmission gap: a synthesis of three decades of research on intergenerational transmission of attachment. *Psychological Bulletin, 142*(4), 337-366.

Vlismas, W., & Bowes, J. (1999). First-time mothers' use of music and movement with their young infants: the impact of a teaching program. *Early Child Development and Care, 159,* 43-51.

Vaughn, B. & Waters, E. (1990). Attachment behavior at home and in the laboratory: Q-sort observations and strange situation classification of one-year-olds. *Child Development, 61*(6).

Wallerstein, N. & Duran, B. (2006). Using community-based participatory research to address health disparities. *Health Promotion Practice, 7*(3).

Warren, P. (2005). First time mothers: social support and confidence in infant care. *Journal of Advanced Nursing, 50*(5).

Waters, E. & Deane, K. (1985). Defining and Assessing Individual Differences in Attachment Relationships: Q-Methodology and the Organization of Behavior in Infancy and Early Childhood. *Monographs of the Society for Research in Child Development, 50*(1/2), pp. 41-65.

Waters, E., Kondo-Ikemura, K., Posada, G., & Richters, J. (1991). Learning to love: Mechanismsand milestones. In M. Gunnar & L. Sroufe (Eds.),*Self processes and development. MinnesotaSymposia on Child Psychology* (Vol. 23, pp. 217–255). Hillsdale, NJ: Erlbaum.

Wearden, A., Peters, I., Berry, K., Barrowclough, C., & Livershidge, T. (2008). Adult attachment, parenting experiences, and core beliefs about self and others. *Personality and Individual Differences, 44*(5).

Weber, N., Dashora, P., Boonstra, H., Heatherington, K. (2014). Here is the Earth, Here is the Sky: Program facilitators perspectives on community engagement and program effectiveness. Poster Session Presented at Community-University Engagement Showcase: International Engagement Scholarship Consortium Conference, Edmonton, AB.

Webster-Stratton, C. (1997). From parent training to community building. *Families in Society, 78*(2).

Weis, D. (2006). *The impact of parent-child mother goose: mother's perception and experiences of singing to their infants aged 6-28 months.* (Master Thesis). Retrieved from http://voyager.library.uvic.ca/vwebv/holdingsInfo?bibId=1446008

Wilkinson, S. (1998). Focus group methodology: a review. *International Journal of Social Research Methodology, 1,*(3).

Wittkowski, A., Dowling, H., & Smith, D. (2016). Does engaging in a group-based intervention increase parental self-efficacy in parents of preschool children? A systematic review of the current literature. *Journal of Child and Family Studies, 25,* 3173-3191.

Appendix I – Tables

Table 1

Outcome Indicators for the PCMG Program

Parents/Caregivers	Child	Parent-Child Relationship

• Increase in knowledge and confidence in their parenting skills/abilities
• Increase in sensitive responsiveness to behavior cues
• Increases the use of positive praise
• Increase in social support
• Increase in emotional regulation
   o Increase in the use of soothing and emotional regulation techniques
   o Increases knowledge of strategies for dealing with difficult situations
	• Promotes secure attachment style
	• Increase in emotional communication
	• Increase in language skills
	• Increase in confidence in social situations
	• Increase in emotional regulation
		• Increases frequency of engaging interactions
		• Increases closeness between family members
		• Increases behaviour expectations of both child and parent
		• Promotes a positive means of communication
		• Interactions are enjoyable

Table 2

Quantitative Measures Participant Demographics

Variable	n	%
Age (in years)		
Under 20	2	2.7
20-24	8	10.8
25-29	32	43.2
30-34	19	25.7
35-39	8	10.8
40 and over	5	6.8
Marital Status		
Single, never married	5	5.8
First marriage or first common law relationship	75	87.2
Remarriage or common law relationship	4	4.7
Separated or divorced	2	2.3
Ethnicity		
Aboriginal	1	1.2
Asian	1	1.2
White/Caucasian	83	96.5
Other	1	1.2
Gender		
Female	81	94.2
Male	5	5.8
Number of Children		
1	40	46.5
2	37	43.0
3	6	7.0
4 or more	3	3.5
How long they have lived in Fort Saskatchewan		
Less than 1 year	9	10.8
1.1 – 3 years	23	27.7
3.1 – 5 years	13	15.7
5.1 – 10 years	12	14.5
10 or more years	26	31.3

Table 3

Descriptives and Distribution of Data for Questionnaires

Questionnaire	n	M	*Mnd*	SD	Skewness	SE Skewness	Kurtosis	SE Kurtosis
Attachment								
Pre-Test Only	65	77.82	78.00	5.60	-.606	.297	.592	.586
Pre-Test Paired	40	77.50	77.00	4.97	-.177	.374	-.545	.733
Post-Test Paired	40	76.70	78.00	6.73	-1.302	.374	2.500	.733
PSOC								
Pre-Test Only	76	71.05	71.00	9.29	-.523	.276	.879	.545
Pre-Test Paired	42	69.69	71.00	9.62	-.805	.365	1.176	.717
Post-Test Paired	42	71.97	72.00	8.07	-.508	.388	-.121	.717
DERS								
Pre-Test Only	80	22.49	20.00	7.25	2.020	.269	5.758	.532
Pre-Test Paired	42	21.67	19.00	7.98	2.630	.365	8.745	.717
Post-Test Paired	42	21.00	18.50	8.68	2.871	.365	10.614	.717

Note: Range of scores varied between questionnaires. Attachment:18-90, high scores indicating more secure attachment; PSOC: 16-96, high scores indicating higher levels of parent sense of competence and self-efficacy; DERS: 14-70, low scores indicating more use of emotional regulation strategies and impulse control.

Table 4

Pre-test Attachment Questions with Significant Differences Between Participation Groups

Questions	M(n)		z	p
	Participated	Never		
When upset, tired, sick or hurt my child will look to me for comfort.	4.67(54)	4.94(31)	-2.414	.016*
My child greets me with a smile when I enter the room.	4.65(51)	4.03(31)	-2.357	.018*
My child gets angry and will throw his/her toys when the toys don't do what my child wants them to do.**	4.35(54)	4.68(25)	-2.070	.038*
When playing more physical games (touching, moving arms/legs for babies, and sports or physical activities for toddlers) with my child, he/she will often hit or throw things at me even though I've shown my child that it can hurt me.**	4.43(51)	4.88(24)	-2.827	.005*
When my child gets frustrated with a toy he/she gets more upset if I try to help him/her.**	4.51(53)	4.81(26)	-2.212	.027*
My child gets angry or fussy quickly if I do not get him/her what they want right away.**	3.53(55)	3.90(29)	-1.961	.050*

*p-value<.05
** Scores have been reversed to calculate total attachment score. (1-Almost Always to 5 – Almost Never)
Note: Participated = Those who have participated in PCMG at least once; Never = Those who have never participated in PCMG

Table 5

Descriptives of PSOC Scales Based on Participant Groups

Scale	n	Min	Max	M	SD
Pre test totals					
PSOC total	76	40	91	71.05	9.29
Satisfactory total	82	20	50	36.57	6.94
Efficacy total	81	17	42	34.18	4.30
Paired PSOC total					
Pre test	42	40	88	69.69	9.62
Post test	42	50	85	71.97	8.07
Paired Satisfactory total					
Pre test	47	20	49	36.21	6.83
Post test	47	18	47	37.06	6.17
Paired Efficacy total					
Pre test	46	17	42	33.54	4.41
Post test	46	23	41	34.57	3.59

Table 6

Difference in Pre- and Post-Test PSOC Scores for Participation Groups

Scale	M		t(df)	p
	Pre-test	Post-Test		
Have Never Participated				
PSOC Total	74.36	76.14	-.955(13)	.357
Efficacy	34.60	35.27	-9.89(14)	.339
Satisfaction	38.81	39.06	-.162(15)	.873
Have Participated				
PSOC Total	67.36	69.89	-2.328(27)	.028*
Efficacy	33.03	34.23	-2.582(30)	.008*
Satisfaction	34.87	36.03	-1.448(30)	.158

*p-value<.05

Table 7

Difference in Pre- and Post-Test PSOC Scores in Older Moms

Scale	M		t(df)	p
	Pre-test	Post-Test		
Have Not Participated				
PSOC Total	73.50	76.17	-1.356(11)	.202
Efficacy	34.00	34.92	-1.528(12)	.152
Satisfaction	39.31	40.77	-.885(12)	.393
Have Participated				
PSOC Total	67.52	70.28	-2.299(24)	.030*
Efficacy	33.18	34.32	-2.473(27)	.020*
Satisfaction	34.93	36.32	-1.620(27)	.117

*p-value<.05

Note: Older moms = 24 years or older

Table 8

Pre and Post Results for Program Specific Items

Item	M		z	p
	Pre-test	Post-Test		
When I sing, rhyme or tell a story my child will look directly at me.	3.76	4.22	-2.820	.005*
When my child is really upset and crying, talking in a calm, soothing voice does not help.	2.06	1.70	-1.972	.049*

*p-value<.05

Table 9

Correlations between Attachment Scores and Other Questionnaires

Scales	n	p	r
PSOC total	56	.000*	.494
Sat total	60	.001*	.406
Eff total	61	.009*	.330
DERS total	61	002*	.386
Imp total	61	.005*	-.356
Strat total	64	.012*	-.312

*p-value<.05

Appendix II – Figures

Figure 1. PCMG Ecological Systems
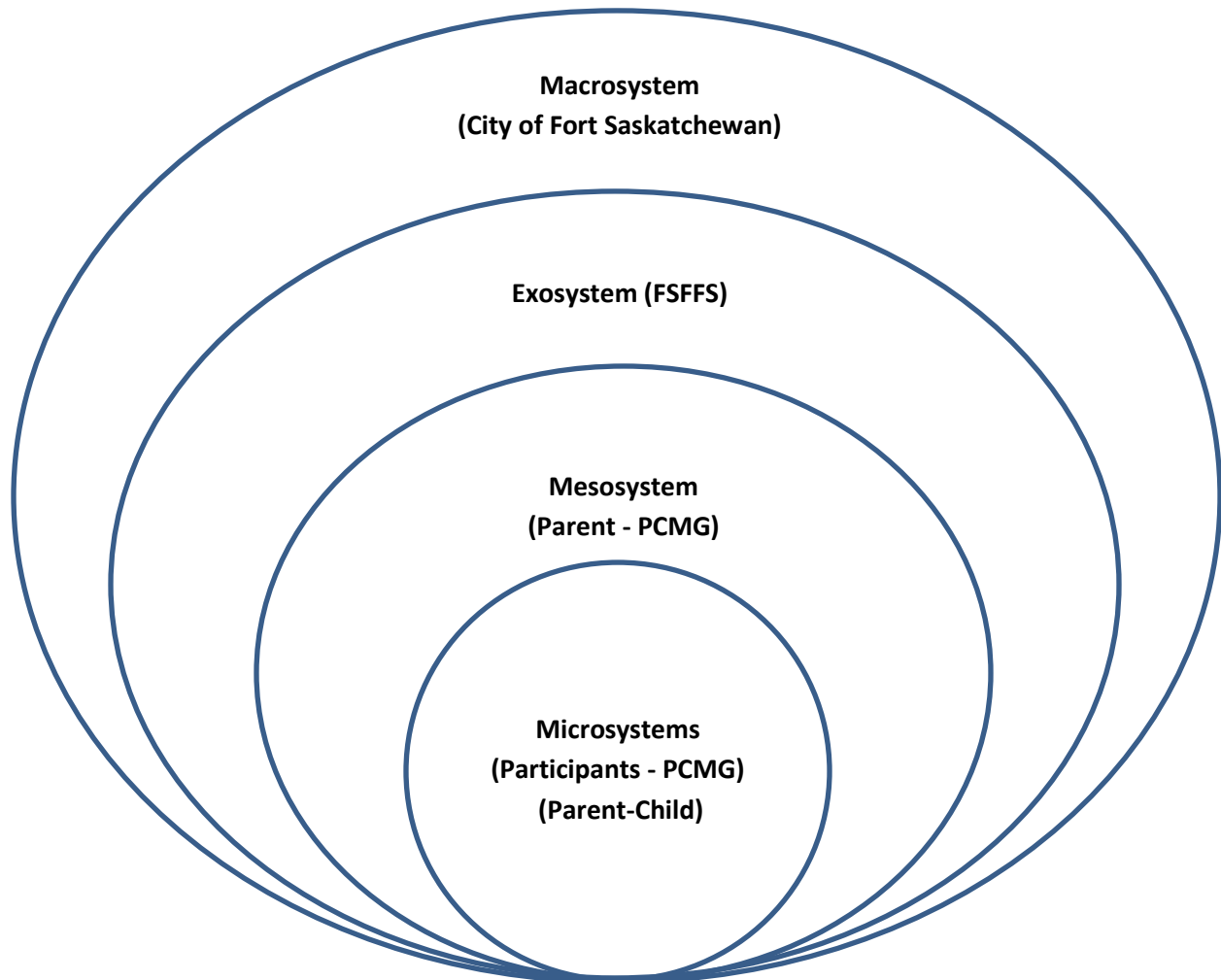
Figure 1. Adapted from Bronfenbrenner's (1979) Ecological Systems Model.

Figure 2: Conceptual Model for the Current Study of the PCMG Program

Figure 2. Adapted from several models and theories including, Bronfenbrenner's System Ecological Model (1993), PPCT model (Rosa & Tudge, 2013), and Belsky's (1984) process model of the determinants of parenting.

Figure 3: Conceptual Model Altered Based on Results from the Current Study of the PCMG Program.

Figure 3. Adapted from several models and theories including, Bronfenbrenner's System Ecological Model (1993), PPCT model (Rosa & Tudge, 2013), and Belsky's (1984) process model of the determinants of parenting.

Appendix III – List of Sources for Document Analysis

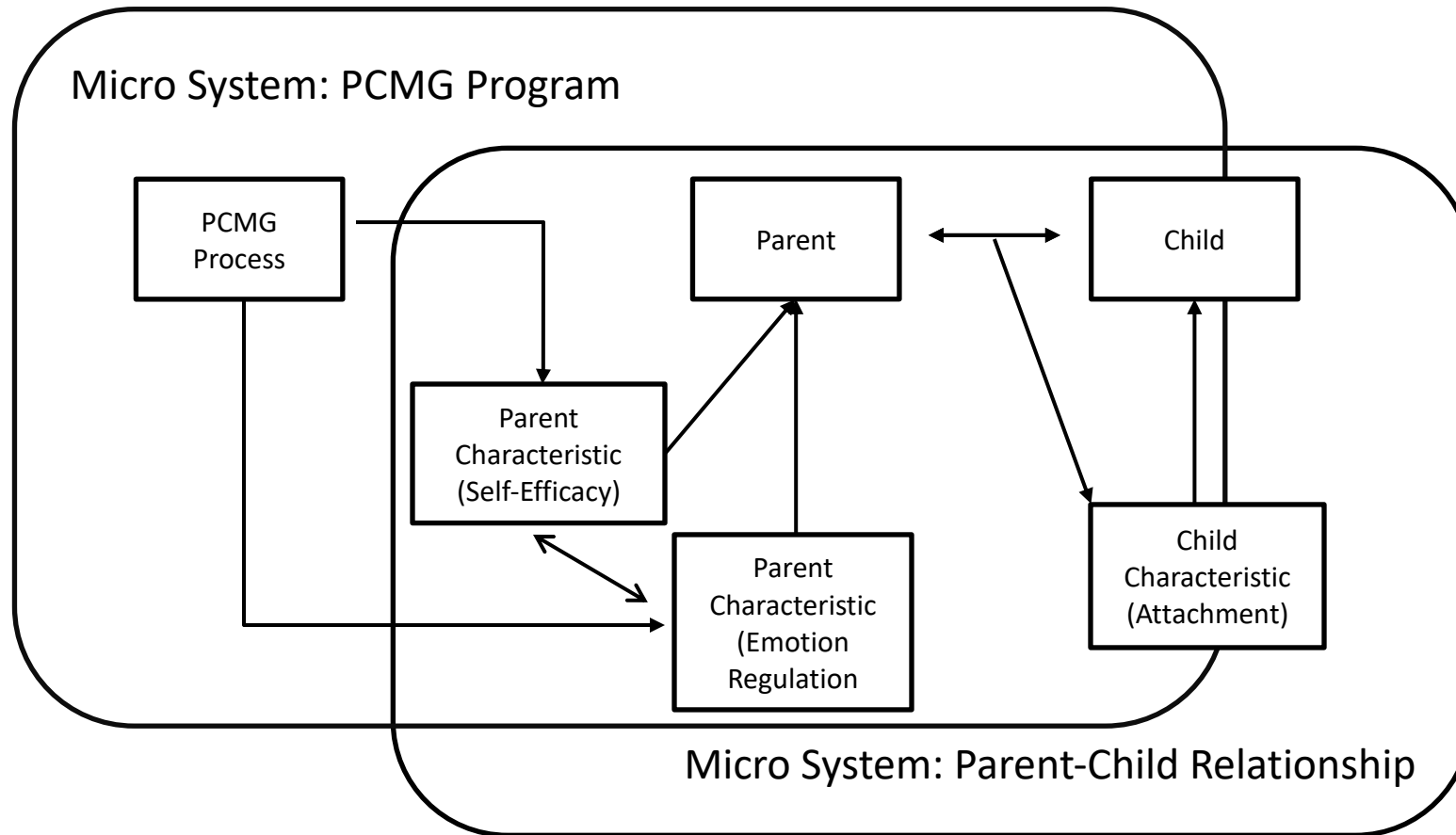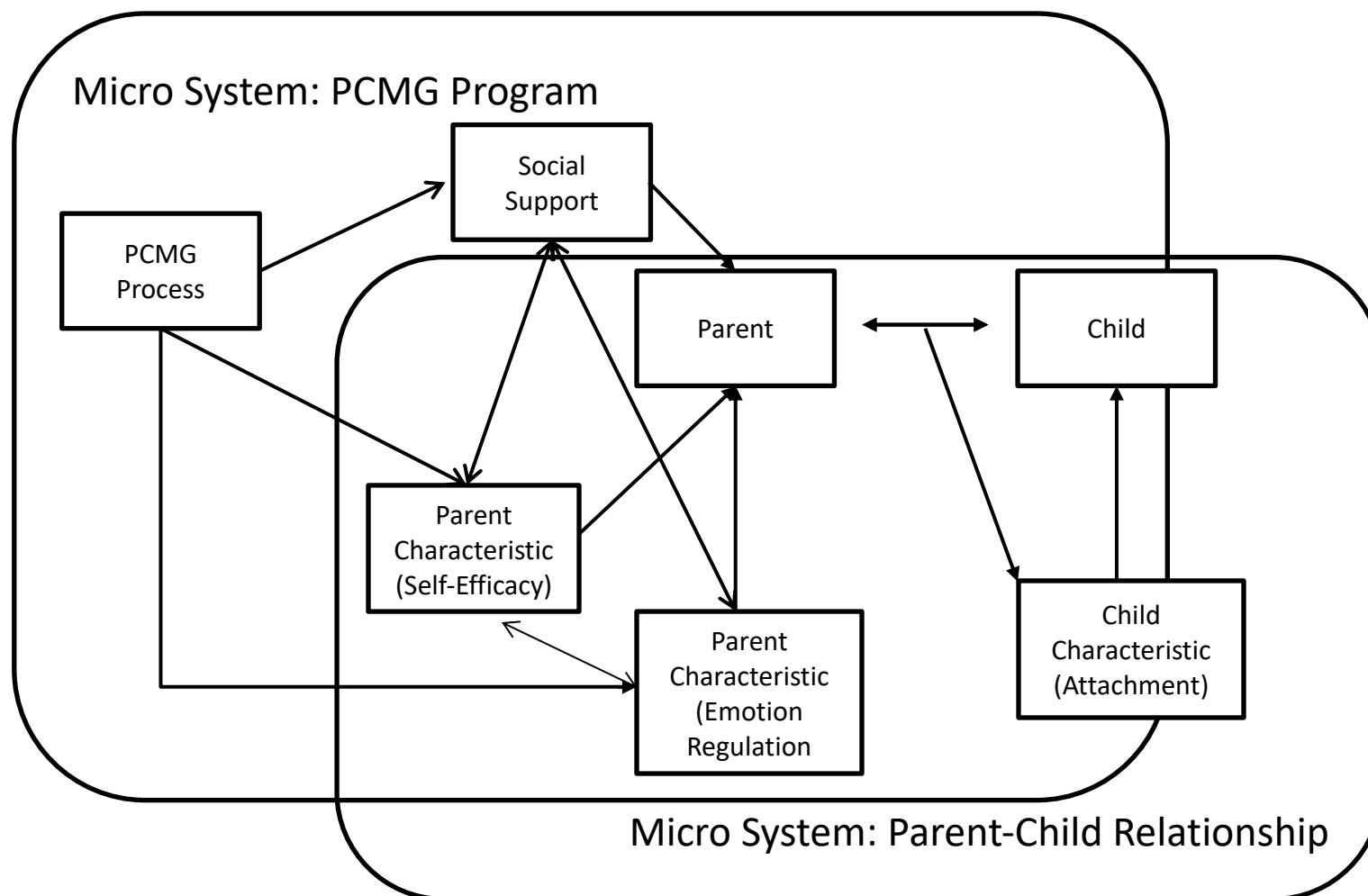Fort Saskatchewan Families First Society Website: PCMG registered program
http://www.familiesfirstsociety.ca/registered-programs/

Fort Saskatchewan Families First Society Website: Annual Report 2013
https://static1.squarespace.com/static/53d69d9de4b04ced593083e1/t/54457a4ce4b054d16ac94e5d/1413839436544/annual_report_final_2013.pdf

Fort Saskatchewan Families First Society Website: Annual Report 2014
http://static1.squarespace.com/static/53d69d9de4b04ced593083e1/t/54457a08e4b04e999e81795b/1413839368240/FFS_annual-report_2014_20140927_web.pdf

Fort Saskatchewan Families First Society Website: Annual Report 2014-15
https://static1.squarespace.com/static/53d69d9de4b04ced593083e1/t/56046457e4b04032510cc6c7/1443128407660/AGM_2014-2015_web.pdf

Fort Saskatchewan Families First Society Website: Annual Report 2015-16
https://static1.squarespace.com/static/53d69d9de4b04ced593083e1/t/57eac4bc440243b577766818/1475003590583/AGM_2016-09-26_web.pdf

National PCMG Website http://nationalpcmgp.ca/

Summary PCMG of Research as of 2006 (Joshi, 2006) http://nationalpcmgp.ca/wp-content/uploads/2013/01/ResearchSummaryArticlePCMGPNov06.pdf

Appendix IV – Focus Group Guiding Questions

PCMG Facilitator Focus Groups

The primary goal of this study is to collect narratives regarding the experiences of PCMG facilitators when it comes to their role in the outcomes of the program and the relationships they have built with participants of the program

Highlighted questions are the ones identified by FSFFS community partners that would be the best to ask.

<u>Guiding Questions</u>

Ice breaker questions:
- How long have you / did you facilitate PCMG?
- How did you get involved with PCMG?

Facilitator Role/Experience:
- Have you facilitated or been involved with other parenting programs? Does PCMG differ? If yes, how? – both as a facilitator and as a participant. *
- How has PCMG influenced you program facilitation style?
- When describing the program to others, for instance other program facilitators or practitioners, how do you describe your role?
- What is it like being a PCMG facilitator? Specifically, in a community like Fort Saskatchewan?
- Would anyone like to share "success" stories they have had as a PCMG facilitator? Success being a very vague word. Whatever, success means to you – such as a noticeable change in a participant, shown appreciation by participant(s), own personal successes (ah ha moments), etc.
- There is emphasis in the literature that a key role of a facilitator is relationship building (connecting / connections with participants). Do you agree? And how do you approach (to connecting) building relationships with participants?

Program Participants:
- When describing the PCMG program, what would you say are the outcomes of the program. What should participants expect to leave with when they finish a session, or the whole program (30 weeks)? *
- Is there a difference between new participants and those who are repeating the program? If so, can you describe these differences? What is the value of repeating the program? Why do participants keep coming back? *
- As a facilitator, are you aware of how this program promotes attachment and bonding?

- How do you as a facilitator promote attachment and bonding between parent child? (connection!) *
- Is this something that comes naturally or is it a conscious effort? - self reflection *
- Have you noticed changes in participants behaviour as they attend more sessions. For example: Was there a difference between how the participant interacted with their child from the first to the last session?
- Do you have any stories participants have shared where they talked about how they used what they learned in PCMG in a situation that required them to be responsive and attentive to their child.

* Questions that FSFFS community partners identified would be the best to ask.

Appendix V – Quantitative Questionnaire

Parent-Child Mother Goose

Questionnaire

Thank you for agreeing to participate! This is the pre-program questionnaire which you are asked to fill out at the beginning of the Parent-Child Mother Goose Program. You will be asked questions about you and the child who is attending the program with you. Please answer honestly. **There are no right or wrong answers to these questions.**

Remember this is anonymous, so please do NOT put your name on the questionnaire. If you have any questions, please ask.

We will be comparing the difference between the first time you filled out this questionnaire to the next time. Please provide your birthdate and initials so we can identify which information is yours. Thank you.

Your Birth date   _____

Your Initials _____

A Bit About You

1. Are you: _____ male   _____ female

2. What is your marital status?

_____ single, never married

_____ first marriage or first common law relationship

_____ remarriage or common law remarriage

_____ separated or divorced

_____ widowed

3. Of which group do you consider yourself a member?

_____ Aboriginal   _____ Arab

_____ Asian   _____ Black/African

_____ South Asian   _____ Hispanic

_____ White/Caucasian

_____ other, please specify   _____

4. How long have you lived in Canada? _____ (years)

5. How long have you lived in Fort Saskatchewan?

_____(months/years)

6. In the last month how often have you sang a song, told a story, or said a rhyme with or to your child?

_____ More than once a day

_____ Once a day

_____ Few times a week

_____ Once a week

_____ Once/twice this month

_____ None/never

7. Have you ever participated in a Parent-Child Mother Goose Program before this one?

_____ no

_____ yes → If YES, how many times? _____

8. Have you ever participated in any other community or parenting programs?

    _____ no

    _____ yes → If YES, please list all the programs

                you have attended.

Name of Program:

  a. _____

  b. _____

  c. _____

9. How many children do you have?   _____

10. What is the age and gender of the child you are participating in Parent-Child Mother Goose with?

Age: _____   Gender: M   F

11. Please list the age and gender of all your children?

Age: _____   Gender: M   F

Age: _____   Gender: M   F

Age: _____   Gender: M   F

Age: _____   Gender: M   F

Age: _____   Gender: M   F

Attachment Questionnaire

The following set of statements is about the child who attends the Parent-Child Mother Goose program with you.

	Please put a check ✔ in the column that shows <u>how often</u> each statement applies to your child. **There is no right or wrong answer**.	Almost Never	Sometimes	About Half the Time	Most of the Time	Almost Always
1.	My child is careful and gentle when playing with toys or pets.					
2.	When upset, tired, sick or hurt my child will look to me for comfort.					
3.	My child needs me, or another adult, to constantly stimulate him/her. Otherwise, he/she becomes bored or fussy.					
4.	When I smile at my child, he/she smiles back.					
5.	When my child is upset, tired, sick or hurt, he/she sometimes resists comforting and will try to push away from me.					
6.	My child greets me with a smile when I enter the room.					
7.	When my child is upset, tired, sick or hurt, he/she doesn't know what he/she wants. First my child wants me to pick him/her up and then after I do, he/she squirms and wants to be put down.					
8.	When at a new place, my child will keep track of my location while playing.					
9.	My child gets angry and will throw his/her toys when the toys don't do what my child wants them to do.					
10.	When I see my child for the first time after being separated, he/she will try to ignore me.					
11.	When playing more physical games (touching, moving arms/legs for babies, and sports or physical activities for toddlers) with my child, he/she will often hit or throw things at me even though I've shown my child that it can hurt me.					
12.	My child is happy.					
13.	When my child is upset, tired, or sick, he/she likes to be left alone.					

14.	My child is fussy and irritable.					
15.	When my child gets frustrated with a toy he/she gets more upset if I try to help him/her.					
16.	My child gets angry or fussy quickly if I do not get him/her what they want right away.					
17.	Once my child is upset, it can take a long time to settle him/her down.					
18.	When upset or frightened, my child is easily comforted by me.					

Parenting Sense of Competence (PSOC) Questionnaire (Johnston & Mash, 1989)

The following set of statements is about how you feel about yourself as a parent.

	For each statement, put a check ✔ in the column that shows how much you <u>agree or disagree</u> with the statement. **There is no right or wrong answer.**	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
1.	The problems of taking care of a baby or young child are easy to solve once you know how your actions affect your baby or child.						
2.	I meet my own expectations for expertise (knowledge and skills) in caring for my child.						
3.	I would make a good role model for a new parent to follow.						
4.	Being a parent is manageable, and any problems are easily solved.						
5.	If anyone can find the answer to what is troubling my child, I am the one.						
6.	A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.						
7.	Considering how long I've been a parent, I feel thoroughly familiar with the role.						
8.	I honestly believe I have all the skills necessary to be a good parent to my child.						
9.	Even though being a parent could be rewarding, I am frustrated now while my child is so young.						
10.	I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like I'm the one being manipulated.						
11.	My mother/father was better prepared to be a good mother/father than I am.						

12.	Sometimes I feel like I'm not getting anything done.						
13.	I go to bed the same way I wake up in the morning—feeling I have not accomplished a whole lot.						
14.	My talents and interests are in other areas, not in being a parent.						
15.	If being a parent of a young child were more interesting, I would be motivated to do a better job as a parent.						
16.	Being a parent makes me tense and anxious.						

Difficulties in Emotion Regulation Scale (DERS) Questionnaire (Gratz & Roemer, 2003)

Parenting or caring for a baby or young child can be stressful and we all get upset at times. The following set of statements is about how you feel and respond when you get upset.

Please put a check ✔ in the column that shows how often you experience the description in each statement. **There is no right or wrong answer.**

	Almost Never	Sometimes	About Half the Time	Most of the Time	Almost Always
1. I experience my emotions as overwhelming and out of control.					
2. When I'm upset, I become out of control.					
3. When I'm upset, I believe that I will remain that way for a long time.					
4. When I'm upset, I believe that I'll end up feeling very depressed.					
5. When I'm upset, I feel out of control.					
6. When I'm upset, I know that I can find a way to eventually feel better.					
7. When I'm upset, I feel like I can remain in control of my behaviours.					
8. When I'm upset, I have difficulty controlling my behaviours.					
9. When I'm upset, I believe that there is nothing I can do to make myself feel better.					
10. When I'm upset, I start to feel bad about myself.					
11. When I'm upset, I believe that wallowing in it is all I can do.					
12. When I'm upset, I lose control over my behaviours.					
13. When I'm upset, it takes me a long time to feel better.					
14. When I'm upset, my emotions feel overwhelming.					

Program Specific Questionnaire

The following set of statements asks you about you and your child who you are attending the program with.

Please put a check ✔ in the column that shows <u>how often</u> you experience the description in each statement. **There is no right or wrong answer.**	Almost Never	Sometimes	About Half the Time	Most of the Time	Almost Always
1. I sing softly or tell a story to my /child to put him/her to sleep.					
2. When I'm upset, singing or rhyming will help calm me down.					
3. My child likes to bounce or move to music or singing.					
4. When my child gets fussy or upset, I try to distract him/her with a toy.					
5. If my child is fussy, telling a story will help him/her settle down.					
6. When I see my baby playing with a toy, I like to just sit and watch.					
7. When I sing, rhyme or tell a story my child will look directly at me.					
8. When my child is upset, singing or rhyming will help calm him/her down.					
9. When my child is crying, I don't know why he/she is crying.					
10. When my /child is really upset and crying, I raise my voice or yell.					
11. When my child and I are together, I wait for my child to initiate play. For example, I wait for my child to show me which toys to play with.					
12. When my child is really upset and crying, talking in a calm, soothing voice does not help.					
13. When my child gets angry I know the reason why.					
14. When I see my child playing with a toy I will get down on the floor with him/her and show my child how to play better with the toy.					
15. My child enjoys sitting close or cuddling with me if I read or tell a story.					

Thank you **VERY MUCH** for participating in this study of Parent-Child Mother Goose.