

Exploring Mothers' Experiences Participating in Parent-Infant Singing Classes

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By

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Abstract

Music interventions have been shown to improve parent-child interactions (e.g., Lyons, 2000; Mackenzie & Hamlett, 2005; Nicholson et al., 2008; Oldfield et al., 2003) and maternal sensitivity (Nicholson et al., 2008). However, there are currently no studies of Canadian parents' perceived motivations for, and their experiences participating in, singing classes with their infants. Therefore, more information is needed on Canadian parents' experiences, and motivations for, participating in singing classes with their infants in order to better understand and support healthy parenting behaviours and infant development.. Specifically, the research questions guiding this preliminary inquiry, were:

- (1) What do parents identify as factors motivating them to participate in parent-infant singing classes? and
- (2) What do parents identify as the benefits of participating in parent-infant singing classes?

Interviews were conducted with four mothers who were attending parent-infant singing classes. Two music instructors involved in the parent-infant singing classes were also interviewed to learn more about the content and functioning of the classes. Additionally, the Parenting Sense of Competency Scale (PSOCS) and the Key to Interactive Parenting Scale (KIPS) were administered to gain additional information related to parent participation in parent-child singing groups (i.e., parenting behaviours and parental sensitivity), and to triangulate data from parent interviews. Four themes emerged from the parents' interview data: (1) mothers' motivations, (2) enhanced parenting, (3) parents' enhanced view of self, and (4) predictors of change. Parents described their development of music-based parenting tools they perceived to have helped them better regulate their infants' emotions and behaviours, strengthen their parent-child relationship, and support their child's language and musical development. In addition, parents described the positive development of their view of self as demonstrated by decreases in reported parenting guilt, normalization of parenting struggles, and an increased focus on success. Moreover, preliminary findings raised questions about additional variables that may enhance growth of parenting skills to foster language and musical development and parental self-efficacy, such as using repetition, routines and structure, and developing supportive relationships with classmates and instructors. Implications for practice and future research are discussed.

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Dedication

“Perhaps it is how we are made; perhaps words of truth reach us best through the heart, and stories and songs are the language of the heart.”

- Stephen R. Lawhead (2008, p.239)

A dedication to my friends and family for supporting me, thanklessly, through this part of my journey . . . you have my undying appreciation and your help will not be forgotten.

To my mother: thank you for your joyful early morning crooning, ever patient dog-sitting, and late night mind-numbing format-proofing. Your joie de vivre has helped me rejoice at beautiful sunsets, glittering frost patterns and many of life’s other ‘little’ things. And your love has sustained me through the less-than-favourite bits.

To my father, whose passion for music encouraged my own, and who reminded me, time and again, that anything can be accomplished with enough “sit in my seat.” Thank you for valuing the quest of life-long learning, and for demonstrating calm confidence through this rite of passage. I endeavour to adopt more of your certainty in the future.

To my clinical supervisor, mentor, and confidence-builder, Jan, for inspiring my passion for family therapy and the delicate attachment work that you do so well. Thank you for talking me through deep valleys and dark corners. I can only hope to return the kindness you have shown, and to pay forward the great songs of wisdom you have bestowed.

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Table of Contents

	Page
Permission To Use	i
Abstract	ii
Acknowledgements	iii
Dedication	iv
Table of Contents	vi
1. Chapter 1: Introduction	1
1.1 Attachment, Self-Efficacy and Music Overview	2
1.2 Statement of Purpose	5
1.3 Definitions.....	5
1.2.1 Attachment.....	5
1.2.2 Parental sensitivity	6
1.2.3 Self-efficacy	6
1.2.4 Resilience.....	6
1.3 Chapter Organization	6
2. Chapter 2: Literature Review	7
2.1 Attachment.....	7
2.1.1 Importance of attachment	8
2.1.2 Parenting behaviours shape attachment	10
2.1.3 Attachment and maternal sensitivity interventions.....	11
2.2 Parental Self-Efficacy	13
2.2.1 Development of parental self-efficacy	14
2.2.2 Importance of parental self-efficacy	15

2.2.3. Parental self-efficacy interventions.....	16
2.3 Resilience Model	17
2.4 Music, Attachment, Parenting and Self-Efficacy..	19
2.3.1 Infants as music learners	19
2.3.2 Singing as attachment behaviour	20
2.3.3 Effects of singing interventions	24
2.3.4 Singing Programs	26
2.5 Conclusion	37
3. Chapter 3: Methodology.....	28
3.1 Rationale for Qualitative Inquiry	28
3.1.1 Basic Qualitative Research	29
3.2 Participant Selection and Recruitment.....	29
3.3 Data	31
3.3.1 Class observations and demographic questionnaires	31
3.3.2 Parenting Sense of Competence Scale (PSOCS)	31
3.3.3 Keys to Interactive Parenting Scale (KIPS).....	32
3.3.4 Participant Interviews	34
3.4 Data Analysis	35
3.5 Evaluation Criteria	36
3.5.1.1 Credibility and dependability.....	36
3.5.1.1 Triangulation	36
3.5.1.2 Member checking	36
3.5.1.3 Thick description	36
3.5.2 Positionality	37
3.5.3 Voice	37
3.6 Ethical Considerations.....	38
3.7 Chapter Summary	39
4. Chapter 4: Results.....	40
4.1 The Participants	40

4.1.1 The mothers	40
4.1.2 The instructors	43
4.2 Theme 1: Mothers' Motivations	44
4.3 Theme 2: Enhanced Parenting	47
4.3.1 Infant mood improvement.....	47
4.3.2 Infant behavioural regulation	48
4.3.3 Infant development support	50
4.3.4 Parent-child relationship enhancement	52
4.4 Theme 3: Mothers' Enhanced View of Self	55
4.4.1 Decreased guilt.....	55
4.4.2 Normalization of struggle	56
4.4.3 Increased focus on success.....	56
4.5 Theme 4: Predictors of Change.....	58
4.5.1 Repetition, routine, and structure.....	58
4.5.2 Supportive relationships.....	60
 5. Chapter 5: Discussion	63
5.1 Mothers' Motivations.....	63
5.2 Enhanced Parenting	64
5.3 Mothers' Enhanced View of Self.....	67
5.4 Predictors of Change.....	68
5.5 Limitations	71
5.6 Implications for Future Research.....	71
5.7 Implications for Practice	74
 References	75
 Appendices.....	94
A. Parent Recruitment Poster.....	94
B. Instructor Recruitment Poster.....	96
C. Parent Script	98

D. Instructor Script.....	99
E. Waitlist Recruitment Poster.....	100
F. Parent Consent Form	102
G. Instructor Consent Form	104
H. Demographic Questionnaire	106
I. Parenting Sense of Competence Scale.....	107
J. Parent Interview Questions	108
K. Instructor Interview Questions.....	109
L. Transcript Release	110

Chapter 1: Introduction

My thesis combines three major areas of interest and enjoyment for me: family relationships, confidence, and music. Multiple personal experiences have led to my interest in factors contributing to resilience, or healthy development and adaptation, despite adversity. During my childhood, my mother struggled with undiagnosed depression and anxiety. I hid many of my own childhood struggles, for fear of further burdening her. Unequipped to deal with my problems and unable to identify or challenge distorted thoughts, I experienced a lot of peer- and academic-related anxiety. In situations that I could have been confident in my hard work and abilities, I found myself wracked with doubt. In my late teens, I began reading popular psychology books to figure out how anxiety develops and what else I could do to improve my mental health. My interest in family dynamics and development and my enjoyment of working with children led me to volunteer and work with families in a variety of settings. I have engaged with children, at-risk youth, and young mothers as a daycamp leader, child-care provider, and youth group home supervisor. In my masters' practica, I had the privilege of being supervised by an amazing family counsellor who immersed me in theories of attachment, intergenerational family patterns, and neurological bases of attachment mechanisms and mental illness. I use this knowledge, as well as my own personal experiences, to support clients in building healthy relationships and in better managing their mental health. As a counselor, I have talked to many clients who struggled to manage their poor relationships with their families and/or the effects of early abuse or trauma experiences. Attachment is one of the major theories that inform my therapeutic relationships with clients and my understandings of clients' present struggles. In particular, I view the relationship between parent and child to be vitally important to the child's development and resilience. I am passionate about supporting families and individuals with mental illness.

Music has always been a big part of my life and I believe it has played a big part in my relationships and my healthy development. Two of my earliest memories are my mother snuggling me while singing her own special lullaby and giggling while my mom sang silly songs to my brother and me. My father, my brother, many of my extended family, and I have learned to play multiple instruments and sang in choirs, and my grandfather played in an orchestra. So music has always been a part of my family interactions and my family members modeled a certain confidence and ability in music-making. I assume that my music-laden early experiences

and familial role-modelling contributed to my own enjoyment of, confidence in, and valuation of music-making. I started listening to music on my own in my pre-teens. As I was exposed to different kinds of music, my listening tastes expanded to include many diverse genres and styles of music. As a teen, I discovered the power to express my feelings and influence my mood through making and listening to music. As an adult, I continue to use music listening and making in my daily life. I am proud of my ability to play the piano and sing. I know I'll encourage my future children to sing and play instruments too. I already sing silly songs to laugh with, connect with, and enjoy my husband. I'm sure I'll do the same with my children. Music can play a vital role in supporting the development of the parent-child relationship (e.g., Lyons, 2000). Information on Canadian parents' experiences, and motivations for, participating in singing classes with their infants would help both parents and professionals working in the community to better understand and support healthy parenting behaviours and infant development.

1.1 Attachment, Self-Efficacy, and Music Research Overview

Infancy presents a period of vulnerability for both infants and caregivers (e.g., Dennis, 2004; Don & Mickelson, 2012; Gavin et al., 2006; Kukreja, Datta, Bhakhri, Singh, & Khan 2012; Milgrom et al., 2012; Stein et al., 2008; Sword, Clark, Hegadoren, Brooks, & Kingston, 2012; Wee, Skouteris, Pier, Richardson, & Milgrom, 2011). Infants are helpless and dependent on parent caregiving during these first two years of life (American Psychological Association, 2007). Parenthood can involve many changes in the lifestyle, responsibilities, and mental health of both mothers (e.g., Dennis, 2004; Gavin et al., 2006; Kukreja et al., 2012; Milgrom et al., 2012; Sword et al., 2012) and fathers (e.g., Don & Mickelson, 2012; Wee et al., 2011). The transition to parenthood is a significant life event, involves periods of stress, and can activate parents' own history of attachment relationships and intergenerational attachment patterns (Van IJzendoorn & Bakermans-Kranenburg, 1997). In the pre- and post-partum periods, women are at increased risk of first onset of, or of symptom relapse associated with, ongoing anxiety and mood disorders (Bennett, Einarson, Taddio, Koren, & Einarson, 2004; Cohen, Altshuler, & Harlow, 2006). Moreover, anxiety and depression are frequently comorbid at this time (Matthey, Barnett, Howie, & Kavanagh, 2003). Parental mental health problems (i.e., depression, personality disorder) are associated with poorer quality of caregiving, and in turn, poorer infant social-emotional and cognitive development (e.g., Flykt, Kanninen, Sinkkonen, & Punamaki, 2010;

Gratz et al., 2014; Stein et al., 2008). For example, maternal post-natal depression has been shown to predict poor quality and quantity of caregiving, which in turn, is associated with poorer infant language development (Stein et al., 2008). Moreover, the effects of parental depression on infant development are even greater when combined with other stressors, such as low socioeconomic status (Lovejoy, Graczyk, O'Hare, & Neuman, 2000; Stein et al., 2008) and greater length of depression (Grace, Evindar, & Stewart, 2003; Lovejoy et al., 2000; Stein et al., 2008). Infants are especially vulnerable in their environment during the early months of their lives. That is, infancy is a period of time when infant temperament is less manageable (Rothbart, 1989), maternal self-efficacy is changing rapidly (Edme & Robin, 1979; Ruble et al., 1990), and the parent-infant relationship is developing (Cowan & Cowan, 1992; Ruble et al., 1990). Both infants and caregiver are vulnerable during infancy, therefore, researchers have studied common protective factors to identify ways to support their resiliency (Luthar, Cicchetti, & Becker, 2000; Maston, 2001).

Resiliency is the ability to maintain positive adaptation despite exposure to diversity (Luthar et al., 2000; Maston, 2001). Researchers have explored common adaptive processes protecting infant development from threat, as opposed to further studying the challenges and stressors of infancy (e.g., Bowlby, 1982; Candelaria et al., 2011; Cassidy & Shaver, 1999). Attachment is one of the major factors implicated in the development of resiliency during infancy (Bowlby, 1982; Luthar et al., 2000; Maston, 2001). In fact, developmental psychologists contend that new parents' most important task is to establish a secure bond with their infant (Bowlby, 1982; Cassidy & Shaver, 1999). A multitude of longitudinal studies have shown security of parent-infant attachment predicts infants' successful social-emotional development, including self-efficacy, persistence in problem-solving, independence, positive affect, empathy, and social competence (e.g., Bretherton & Munholland, 2008; Cassidy & Shaver, 1999). Studies have also found insecurity through childhood, adolescence, and beyond predicts more behavioural problems (i.e., hostility, non-compliance), psychopathology (i.e., symptoms of dissociation, depression, anxiety), less overall brain development, and deficits in the amygdala, frontal brain structures, and neuroendocrine functioning (Coates, 2010; DeBellis et al., 1999a, 1999b; Hart & Rubia, 2012; Liu et al., 1997) through childhood, adolescence, and beyond. Furthermore, researchers suggest that patterns of emotional and social interaction between parents and their infants can have a powerful impact on infant neural development, and form the

neurological basis of attachment mechanisms developed early in life (Bretherton & Munholland, 2008; Schore, 2001; Schore & Schore, 2008; Seigle, 2001). Therefore, it is important to identify the parental behaviours that support secure attachment, given that parent-child attachment has been found to be related to infant developmental factors.

Parents can protect their infant from both psychological and socioeconomic risk, and by extension facilitate healthy child development, by responding to their infant's cues in a warm, appropriate, consistent, and prompt manner (Candelaria et al., 2011). Additionally, parental self-efficacy, or parent's beliefs about their ability to parent successfully, has also been shown to predict both efficacious parenting behaviors (i.e., responsivity, consistency, warmth, lack of hostility, appropriateness of limit-setting) and infant development (Ardelt & Eccles, 2001; Coleman & Karraker, 1997; Jones & Prinz, 2005). Researchers have developed and investigated many different interventions to support parents during the challenges associated with raising an infant and to ultimately support infant resiliency (Bakermans-Kranenburg, Van IJzendoorn, & Juffer, 2003). For example, group singing classes, in which parents sing, dance, rhyme, and play instruments with their infants, are one type of intervention used to support infant resiliency (Mackenzie & Hamlett, 2005; Nicholson et al., 2008). Singing interventions have been developed to support a variety of at-risk parents and infants, including early and/or first-time parents, parents with mental illness or who may be socially and/or economically disadvantaged, parents who are victims of domestic violence, children who were born preterm or demonstrate developmental delays, or some combination of risk factors (e.g., Haslbeck, 2012; Lyons, 2000; Nicholson et al., 2008; Oldfield et al., 2003; Oldfield & Bunce, 2001; Shoemark, 1996; Standley, 2002; Vlismas & Bowes, 1999). For example, in one study, a community-based singing class was developed to strengthen early attachment, build social support, and increase resiliency of *well* families, or those without a diagnosis, disability, overt need, or high-risk status (Mackenzie & Hamlett, 2005). Multiple benefits of music interventions have been reported by parents and instructors and observed by researchers in the research literature from Iceland, Brazil, the U.S.A., the United Kingdom, and Australian, including: improving frequency and quality of parent-child interactions (e.g., Lyons, 2000; Mackenzie & Hamlett, 2005; Nicholson et al., 2008; Oldfield et al., 2003), improving maternal sensitivity and decreasing maternal irritability and mental illness symptoms (Nicholson et al., 2008), and improving toddler mood, temper, and manageability (Nicholson et al., 2008). There are a variety of conjoint parent-infant music

classes are available in Canadian cities (e.g., <http://www.kindermusik.com>; <http://suzukitalented.org>). However, there are currently no investigations of Canadian parents' experiences in conjoint parent-infant singing classes.

Music classes have been developed to meet a variety of infant and parent needs (Mackenzie & Hamlett, 2005). For example, most music classes described in the psychological literature focused on strengthening early attachment, building social support, and increasing resiliency of high-risk parents (e.g., Edwards, 2011; Nicholson et al, 2008) or of *well* families (e.g., Mackenzie & Hamlett, 2005). In comparison, classes available in the Saskatchewan community are advertised to build early music skills and prepare children to play instruments at an early age (e.g., <http://suzukiassociation.org>; Jones, 2004). Other community classes boast infant stimulation and facilitation of infant development (e.g., <http://www.kindermusik.com/about/>). Moreover, early music instructors can vary in the theory and focus of their training, and their style of teaching (Hargreaves, Miell, & MacDonald, 2002; McHale, 2013; Philpott & Plummeridge, 2001). Presumably, parents of young children may decide to join a singing class for a variety of reasons and may experience a variety of benefits. However, there is currently no published research related to Canadian parents' motivations for, or perceived benefits of, participating in music and/or singing classes with their children.

1.2 Statement of Purpose

More information is needed on Canadian parents' experiences, and motivations for, participating in singing classes with their infants in order to better understand and support healthy parenting behaviours and infant development. Specifically, the research questions guiding this preliminary inquiry, were:

- (1) What do parents identify as factors motivating them to participate in parent-infant singing classes? and
- (2) What do parents identify as the benefits of participating in parent-infant singing classes?

1.3 Definitions

The following terms are defined to add greater clarity to this study.

1.3.1 Infancy. Infancy is a period characterized by helplessness and dependence on parental care that includes the first two years of postnatal life (American Psychological Association, 2007).

1.3.1 Attachment. Attachment is the quality of the parent-child relationship as observed and measured by an infant's: reaction to caregiver separation, willingness to explore, response to the presence of a stranger, and greeting of caregiver upon return (Ainsworth, Blehar, Waters, & Wall, 1978).

1.3.2 Parental sensitivity. Parental sensitivity can be defined as primary caregivers' responses to their infants' needs that are prompt, appropriate, flexible, warm, enjoyable, and mutually-reinforcing (Ainsworth et al., 1978).

1.3.3 Resilience. Resilience is the dynamic process of positive human adaptation and development despite exposure to significant adversity or threat (Luthar et al., 2000).

1.3.4 Self-efficacy. A person's beliefs about his or her ability to achieve a goal by successfully performing a specific action (Bandura, 1982). Specifically, parental self-efficacy considers the degree to which parents feel competent and confident in parenting, as well as, the affect associated with parenting (Johnston & Mash, 1989).

1.4 Chapter Organization

Chapter 2 includes a detailed review of the literature in four main areas: the resiliency model, attachment, parental self-efficacy, and the relationship between music, attachment, parenting, and self-efficacy. Chapter 3 describes the basic qualitative methodology used within this study, including: why a qualitative research design was chosen; how participants were selected and recruited; how data were evaluated and analyzed; and what ethical concerns were considered. Chapter 4 presents descriptions of the parents and instructors who were involved in singing classes and the themes that emerged from the demographic, questionnaire, observational, and interview data collected. Finally, Chapter 5 discusses the study's findings within the context of resilience, the study's limitations, and implications for practice and future research.

Chapter 2: Literature Review

The review of the literature related to parental experiences in parent-infant singing programs is divided into four major sections. Section one discusses the resiliency model. Section two focuses on the area of attachment. Section three examines parental self-efficacy, while section four reviews the relationship between music, attachment, parenting, and self-efficacy.

2.1 Attachment

Attachment was first described by Bowlby (1982) as a mechanism that evolved to protect human infants from danger. Bowlby (1982) proposed that an infant's attachment to his or her caregiver results in the infant being "strongly disposed to...and seek[ing] proximity to and contact with his caregiver...notably when [the infant] is frightened, tired or ill" (p. 371). Bowlby (1982) suggested that infants use caregivers as a secure base from which to explore their environments. Through exploration, infants gain information from the world around them, and find opportunities to develop mastery (Bretherton, 1985). Bowlby (1982) stated that the attachment system becomes reactivated when infants are physically distressed, separated from their caregivers, or approached by a stranger. During this attachment activation, exploratory behaviours cease and attachment behaviours are engaged in, until the infant establishes a sense of security and/or proximity with the caregiver.

Ainsworth et al. (1978) first described and operationalized four types of attachment, using the *Strange Situation Test*. Based on infants' responses to increasingly stressful situations (departure of mother, presence of stranger), Ainsworth et al. described four patterns of attachment. Infants with *secure* attachments displayed behaviour that was more flexible and adaptive to stressors. These infants were confident in exploration of their environment, returned to their mothers when they experienced stress, and were easily comforted by their mothers upon reunion. The mothers of securely attached infants were consistent, appropriate, and emotionally available in their responses to their infants.

Infants with *insecure* attachments were divided into three groups: avoidant, anxious-ambivalent, and disorganized (Ainsworth et al., 1978). Infants classified as having avoidant attachments explored their environments without showing interest in their caregivers. They indicated little distress upon caregiver separation and avoided contact with their caregivers upon return. Their mothers were unavailable, unemotional, and/or rejecting of physical contact with their upset infants. Interestingly, researchers suggest that infants with avoidant attachments

experience as much physiological arousal as other infants, but that avoidant infants learn to contain their distress (Spangler & Grossman, 1993).

Infants classified as having anxious-ambivalent attachments were less flexible and showed little exploration of their environments (Ainsworth et al., 1978). They were extremely distressed upon separation from their caregiver, showed ambivalence or anger upon their caregivers' return, and were hard to console by caregivers. Anxious-ambivalent infants had parents who showed inconsistent caregiving. Researchers hypothesize that their mothers are more focused on their own needs, than on their infant's (Guttmann-Steinmetz & Crowell, 2006).

Infants whose behaviours upon separation seemed confused, inconsistent, and anxious were classified as having disorganized attachment (Ainsworth et al., 1978). Researchers have suggested that infants with disorganized attachment are often abused or neglected, or have parents with histories of unresolved loss or abuse (Main & Solomon, 1990). Parents' trauma histories lead them to act frightened of infants, or react to infants in ways that are frightening. As a result, infants with disorganized attachments can move away from parents when distressed, or show behaviours without a clear purpose.

2.1.1 The importance of attachment. Developmental psychologists and researchers of resiliency contend that establishing a securely attached parent-infant bond is the major developmental task of infancy (Bowlby, 1982; Cassidy & Shaver, 1999). Bowlby (1982) stated that:

The developmental pathway followed by each individual and the extent to which he, or she becomes resilient to stressful life events is determined to a very significant degree by the pattern of attachment he, or she develops during the early years. (p. 172)

Moreover, the *sensitive period* for attachment takes place during the first few years of life and coincides with the primary period of experience-dependent neuron production, synapse pruning, and neural connection strengthening in the brain (Schore, 2001; Schore & Schore, 2008; Seigle, 2001). Researchers suggest that these patterns of emotional and social interaction between parents and their infants can have a powerful impact on how neural circuits develop in the infant's brain.

Developmental psychologists suggest that the early attachment relationship continues to be visible in, and influenced by, ongoing parent-child interactional patterns throughout childhood and adolescence (Beebe et al., 2010; Campbell & Taylor, 1980; Cassidy & Shaver, 1999; Schore,

2001; Schore & Schore, 2008; Woodhouse, 2010). Throughout infancy and childhood, neurophysiological development allows emotion, which was initially regulated by caregivers, to become increasingly self-regulated. Developmental psychologists have long theorized that early attachment experiences contribute to the formation of mental representations of attachment relationships, called internal working models (Bowlby, 1982; Bretherton, Ridgeway, & Cassidy, 1990; Dykas & Cassidy, 2011). These models are posited to help individuals collect and interpret information from parents, peers, and romantic partners, and lead to adaptive or maladaptive patterns in processing of social information. More recently, cognitive neuroscience theory and research have provided additional support for the development of internal working models (Bretherton & Munholland, 2008) and the neurological basis of this, and other attachment mechanisms developed early in the lifespan (e.g., Schore, 2001; Schore & Schore, 2008; Siegle, 2001; Sullivan & Gratton, 2002).

A multitude of longitudinal studies have provided support that attachment security is a marker for later development and resilience (Cassidy & Shaver, 1999). Secure attachment in infancy has been shown to predict numerous positive social, emotional, and cognitive developmental outcomes (e.g., Cassidy & Shaver, 1999; Stams, Juffer, & van IJsendoorn, 2002). More specifically, researchers have shown secure infant attachment to predict greater self-efficacy and persistence in problem-solving during toddlerhood (Matas, Arend, & Sroufe, 1978), enhanced self-regulatory abilities during preschool (Arend, Gove, & Sroufe, 1979), enhanced social competence during school years (Elicker, Englund, & Sroufe, 1992), greater independence and empathy during toddlerhood (Sroufe, 1983), and increased positive affect during infancy (Waters, Wippman, & Sroufe, 1979).

Furthermore, poor attachment security has been shown to predict later development of psychopathology and behavioural problems. For example, insecure attachment has been shown to predict hostility, non-compliance, and other behavioural problems in preschool (Carlson, 1998; Erickson, Sroufe, & Egeland, 1985; Shaw & Vondra, 1995) and school ages (Moss, Rousseau, Parent, St. Laurent, & Saintonge, 1998). Insecurely-attached infants who are grown up are more likely to be described by their preschool teachers as impulsive, withdrawn, and easy to give up (Erickson et al., 1985). Moreover, insecurity of attachment has been shown to alter the neuroendocrine response to stress in the brain, thereby predisposing individuals with insecure

attachments to physiological and psychological vulnerability (Liu et al., 1997; Rosenblum et al., 1994; Seigle, 2001).

Infants with disorganized attachment are especially at-risk (e.g., Carlson, 1998; Coates, 2010; DeBellis et al., 1999a, 1999b; Hart & Rubia, 2012; Lyons-Sarah, 1996; Moss et al., 1998). They develop more behavioural problems in pre, elementary, and high school; more dissociative symptoms in adolescence; and more psychopathology in adolescence, than infants with other attachment styles (Carlson, 1998; Lyons-Sarah, 1996; Moss et al., 1998). Furthermore, controlled studies show that children maltreated by their caregivers in early childhood have been shown to have less overall brain development and prominent deficits in the amygdala and frontal-limbic brain structures and neuro-endocrine functioning associated with behavioural and affect control, than children with healthy relationships with their caregivers (Coates, 2010; DeBellis et al., 1999a, 1999b; Hart & Rubia, 2012).

2.1.2 Parenting behaviours shape attachment. Developmental psychologists maintain that the attachment relationship is primarily dependent on the quality of parent responses to infant needs (Bowlby, 1982; De Wolff & Van IJzendoorn, 1997; Gerhardt, 2004; Maselko et al., 2011; Tronick, 2002). That is, when caregivers are regularly available to give prompt and appropriate responses to infants' signals, infants develop more secure attachments. These parental responses contribute to a more secure parent-child attachment when they are warm and affectionate (Bowlby, 1982; Darling & Steinberg, 1993; Maselko et al., 2011; Seigle, 2001). Also, attachment is a function of the amount of, and enjoyment of, mother-infant interaction (Bowlby, 1982; Gerhardt, 2004). Bowlby (1982) noted that securely attached infant-parent pairs engage in "much social interaction [with each other]...to the delight of each party" (p. 315).

Attachment theorists have gone on to suggest that caregivers do not need to be *perfect* in their responses to their infants (Bowlby, 1982; Winnicott, 1971). Rather, caregivers must be *flexible* in their responses, constantly adapting to their infant's needs. While caregivers work to accommodate their infant's changing signals, there are sure to be disruptions. However, attachment is not best described as a lack of disruptions, but the ability to repair disruptions (Bowlby, 1982; Seigle, 2001; Tronick, 1989).

Ainsworth et al. (1978) first examined attachment empirically and standardized the assessment of parent-infant attachment. Ainsworth identified *maternal sensitivity* to infant cues as an important variable in predicting infant attachment style over time. Maternal sensitivity was

defined as being accessible to infants for caregiving, being alert to infant signals, understanding these cues and responding appropriately, remaining flexible and prompt in attention and behaviour, and negotiating conflicting goals between parent and infant.

Other researchers have gone on to report a strong relationship between infant attachment style and maternal sensitivity (Egeland & Farber, 1984; Grossmann, Grossmann, Spangler, Suess, & Unzner, 1985; Smith & Pederson, 1988). For example, Smith and Pederson (1988) correctly differentiated between securely and insecurely attached infants in 94% of infant-mother pairs by using maternal behaviours to predict attachment security. However, some researchers have found substantial variability in the ability to use maternal sensitivity to predict attachment security. In their meta-analysis, Goldsmith and Alansky (1987) reported effects sizes ranging from +2.48 to -.18. Pederson et al. (1990) suggested that these inconsistent findings can be explained by researchers' use of laboratory settings. As maternal behaviours exist within a larger system, they are influenced by the challenges of balancing the needs of the infant, mother, and larger family system. In laboratories, caregivers' attention is entirely and unnaturally focused on infant tasks which can mask individual differences in sensitivity and ability to balance conflicting demands. While other factors have been identified as influencing attachment, maternal sensitivity has been "identified both theoretically and empirically as *the* core determinant of attachment security" (Candelaria et al., 2011, p. 870).

Candelaria et al. (2011) recently studied the effect of cumulative risk factors on attachment in 168 prematurely born infants and their mothers. Baseline data were collected when infants were 32-36 weeks old (gestational age). Also, data were collected 4 months and 12 months later. The investigated risk factors included psychosocial (maternal depression, stress and self-efficacy), sociodemographic (poverty, maternal education, marital status), and health (prematurity) risk. Maternal sensitivity was found to mediate the impact of psychosocial and sociodemographic risk on attachment. This study suggests that by taking care of their children in warm, timely, and appropriate ways, parents can protect the parent-child relationship from risk, and by extension, facilitate healthy child development and resilience in the face of adversity.

2.1.3 Attachment and maternal sensitivity interventions. Practitioners and researchers have focused on finding ways to improve the vital parent-infant bond (e.g., Bakermans-Kranenberg et al., 2003; Landry, Smith, & Swank, 2006; Leigh, Vergara, & Santelices, 2013), especially since secure attachment has been shown to predict healthy development (Cassidy &

Shaver, 1999; Stams, Juffer, & van IJsendoorn, 2002). Many researchers have used psychological interventions to promote attachment security and maternal sensitivity (for review, see Bakermans-Kranenberg et al., 2003; Landry et al., 2006; Leigh et al., 2013). These interventions have included variations in multiple factors, including intervention length, age of child, and degree of family risk. Interventions have attempted to change mothers' mental representations of their infants, worked with mothers' childhood experiences, coached mothers to read infant cues, and provided psychoeducation about attachment and parental sensitivity.

Researchers have compared different types of maternal sensitivity interventions and developed additional guidelines to enhance the effectiveness of attachment interventions (e.g., Bakermans-Kranenburg et al., 2003; Dunst, 2000; Marvin, Cooper, Hoffman, & Powell, 2002). For example, during the last 20 years, early intervention programs have increasingly changed their focus from children to include the parents (Dunst, 2000). Marvin et al. (2002) suggested that attachment interventions should target the caregiver, who "as an adult, has more 'degrees of freedom' in changing patterns of attachment-caregiving interactions that does the child" (p. 115). That is, by inviting the caregivers to shift their patterns of behaviour, and/or, internal working models of attachment, their infants will respond differently to the caregivers and create reciprocal change in their attachment interactions.

In a meta-analysis of 80 studies of maternal sensitivity and 29 studies of attachment security, Bakermans-Kranenburg et al. (2003) considered the effects of randomized interventions on maternal sensitivity and attachment security. Interventions focusing on enhancing maternal sensitivity using clear behavioural goals were found to result in the largest improvements in maternal sensitivity and children's attachment security. Alternatively, interventions aimed at changing caregiver attachment representations were less effective. These improvements in sensitivity and attachment were found in families both with and without multiple problems, suggesting that maternal sensitivity and attachment security can be improved in families with varying degrees of stressors. Thus, the most effective attachment interventions for simple- to multi-problem families include clear behavioural goals and a focus on improving the sensitivity of maternal responses to their children.

Also, Bakermans-Kranenburg et al. (2003) suggested that interventions with less than five sessions were as effective as those with five to 16 sessions and more effective than those with more than 16 sessions. This finding fits with the body of research that suggests that most

change tends to come in the first 4 weeks of psychological intervention and then slowly tapers off (Duncan, Miller, Wampold, & Hubble, 2009; Ilardi & Craighead, 1994). However, the argument that more treatment yields more change has also been made (Egeland, Weinfield, Bosquet, & Cheng, 2000).

Alternatively, Duncan et al. (2009) suggested that the two arguments are not mutually exclusive. That is, the extent to which psychological interventions are successful is based on: 1) the relationship that the client and the therapist have; 2) the goodness of fit between the therapist's style of intervention and the client's preferences; and 3) the client's level of motivation to make change. The more motivated clients are to make change, the more helpful treatment will be over longer periods of time. Once clients feel a certain level of satisfaction with themselves and their lives, they become less motivated to make any behavioural changes, and they make fewer changes. Those clients who are motivated to make change also need to have a good relationship with their therapist and to appreciate their therapist's techniques and theory of change. For those clients who have a good relationship and a good fit with their therapist, the most change is created during the first few weeks of treatment and then tapers off. When clients do not have a good relationship or do not match with their therapist's preferred style of intervention, little to no change is made. Thus, Duncan et al. (2009) suggested that the optimal length of treatment is variable across clients; length of treatment is based on whether the client is still motivated and continuing to make changes. Additionally, in order for any change to occur, the client must have a strong relationship with the therapist, and the therapist's methods and theory of change must fit client preferences.

2.2 Parental Self-Efficacy

As parents are building an attachment relationship with their infant, they simultaneously develop a system of beliefs about their caregiving abilities (Elek, Hudson, & Bouffard, 2003; Porter & Hsu, 2003; Ruble et al., 1990). A caregiver's expectations of their ability to parent effectively are considered to be one specific type of personal self-efficacy (Ardelt & Eccles, 2001; Cervone, 2000; Jones & Prinz, 2005). The general concept of self-efficacy was first defined by Bandura (1982), as a person's belief in his, or her ability to achieve an outcome by performing a specific action successfully. Moreover, individuals with high self-efficacy are more likely to picture themselves successfully solving a problem or coping with a challenging event. Thus, the definition of parental self-efficacy has been extrapolated from Bandura's

concept of general self-efficacy and described as a caregiver's belief in his or her ability to exercise influence over their child and environment in order to cultivate the child's successful development (Ardelt & Eccles, 2001).

2.2.1 Development of parental self-efficacy. While parenthood can be joyful and fulfilling, mother and fathers can also experience stress, loneliness, and feelings of incompetence during the first few years of their child's life (Taubman, Schlomo, Schlomo, Sivan, & Dolizki, 2009). New mothers and fathers develop beliefs about their ability to parent during a period of many changes and challenges. New parents go through multiple transitions, including developing a new relationship with the baby, learning new roles and skills, negotiating a balance between the baby's needs and their own, and realigning existing relationships (Cowan & Cowan, 1995; Nystrom & Ohrling, 2003). Mothers and fathers reported that raising a child is an incredibly challenging responsibility, and described parenting during the child's first few years as overwhelming (Majewski, 1987; Nystrom & Ohrling, 2003). Furthermore, life changes and periods of stress have been shown to negatively affect self-efficacy (Bandura, 1982), which suggests that parental self-efficacy may be especially vulnerable during these first few years of the infant's life.

Emde and Robin (1979) suggested that the first 2 months postpartum are a critical adjustment period for parental self-efficacy, because their new beliefs and attitudes are forming in the context of the developing parent–infant relationship (Ruble et al., 1990). Additionally, research suggested that parental self-efficacy increases over the infant's first years of life, and is especially vulnerable during fluctuation points (Porter & Hsu, 2003). For example, new mother's self-efficacy has been shown to increase significantly between the prenatal period and the first month of infancy and between the first and third months of infancy (Mercer, 1985, 1986; Porter & Hsu, 2003; Rothbart, 1989). These fluctuations may be related to mothers' experience of their infant's temperament shifts during the early months of infancy. For example, infants' temperaments are generally more negative during the first month of their lives. Then, infant temperament becomes increasingly sociable and manageable in the second and third months, as they develop the ability for social smiles and self-quieting (Rothbart, 1989). Also, mothers experience increased self-efficacy between the fourth and twelfth months (Elek, Hudson, & Bouffard, 2003). However, mothers have reported feeling disruptions in self-efficacy when their

infants were 8- and 12-months-old (Mercer, 1985, 1986). Thus, maternal self-efficacy seems to be decreasingly vulnerable, with periodic disruptions, as the infant ages.

2.2.2 Importance of parental self-efficacy. Individuals with high self-efficacy have been shown to work harder and longer to overcome a challenge and to take more chances (e.g., Bandura, 1982; Dennis & Faux, 1999; Hutchinson, Sherman, Martinovic, & Tenenbaum, 2008; Llewellyn, Sanchez, Asghar, & Jones, 2008). In this way, self-efficacy and persistence are mutually-reinforcing. That is, belief in one's ability to succeed results in increased persistence and effort, which, in turn, increases resilience, success, and commitment to task mastery. Just as general self-efficacy predicts behaviour, parental self-efficacy is considered a strong determinant of parenting behaviour (e.g., Ardel & Eccles, 2001; Coleman & Karraker, 1997; Jones & Prinz, 2005). That is, parents who believe in their parental self-efficacy are more likely to engage in active, positive parenting strategies. In turn, engagement in higher quality parenting helps children become more academically, socially, and psychologically successful, which reinforces parental self-efficacy. Conversely, parents with low parental self-efficacy struggle in using helpful parenting strategies, become frustrated more easily, and give up more easily when challenged (e.g., Ardel & Eccles, 2001; Coleman & Karraker, 1997; Jones & Prinz, 2005). Thus, by struggling and giving up, caregivers' low parental self-efficacy is reinforced.

Indeed, descriptive research has shown parental self-efficacy to be related to a range of optimal parenting strategies, including sensitive parental response to children's needs (Teti & Gelfand, 1991), affection and warmth (Dumka et al., 1996; Izzo, Weiss, Shanahan, & Rodriguez-Brown, 2000), and increased involvement in learning activities (Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Hoover-Dempsey et al., 2001; Ice & Hoover-Dempsey, 2011). Moreover, higher parental self-efficacy has been shown to predict increased persistence in optimal parenting behaviours (Dennis & Faux, 1999). Conversely, low parental self-efficacy has been shown to be associated with hostile parenting, coercive discipline, and a propensity to give up in the face of parenting challenges (Coleman & Karraker, 1997; Grossman, Sambrook, & Fog, 1999).

Parental self-efficacy has been described as a mediator between various factors and parental competence. For example, parental self-efficacy has been found to mediate the relationship between child temperament and parental involvement (Giallo, Treyvaud, Cooklin, & Wade, 2013; Machilda et al., 2002). Also, parental self-efficacy has been found to mediate the effects of the need for social support on parental competence (Giallo et al., 2013; Izzo et al.,

2000; Teti & Gelfand, 1991). Giallo et al. (2013) found parental self-efficacy to be a mediator of the relationship between parental stressors (parent illness, stress, anxiety, depression, fatigue) and both maternal and parental involvement. This finding suggests that parents, who experiencing distress, because of various psychosocial factors, may judge their parenting to be less effective and, therefore engage with their children less often.

Not only do individuals with high self-efficacy engage in more proactive behaviours. They also experience different emotions in response to challenges. For example, individuals are less distressed by difficult situations when they believe in their own ability to cope, or successfully change the situation (Benight & Bandura, 2004; Harper et al., 2013). Also, self-efficacy predicts an individual's mood and the amount of enjoyment an individual experiences when performing an action (Hu, Motl, McAuley, & Konopack, 2007; Jerome et al., 2002). In contrast, individuals with low self-efficacy show more autonomic arousal, stress hormone production, and post-traumatic stress disorder symptoms in response to stress and trauma (Cieslak, Benight, Luszczynska, & Laudenslager, 2011; Luszczynska, Benight, & Cieslak, 2009; Schwerdtfeger, Konermann, & Schonhofen, 2008).

Just as general self-efficacy predicts mood and enjoyment, parental self-efficacy has been found to predict parental satisfaction (Coleman & Karraker, 1997; Drake, Humenick, Amankwaa, Younger, & Roux, 2007; Elek et al., 2003; Ngai, Chan, & Holroyd, 2007) and parental warmth and affection (Dumka, Stoerzinger, Jackson, & Roosa, 1996; Izzo et al., 2000). Alternatively, low parental self-efficacy relates to more distressed, anxious, depressed, and post-traumatic symptoms in response to parenting challenges and infant health problems (Best, Streisand, Catania, & Kasak, 2001; Harper et al., 2013; Sevigny & Loutzenhiser, 2010; Sloper, 2000).

2.2.3 Parental self-efficacy interventions. Parental self-efficacy intervention studies are not as widespread as attachment, or parental sensitivity interventions, however, they have increased exponentially in recent years (Coleman & Karraker, 1997; Jones & Prinz, 2005; Raj & Salagame, 2010). Reviews of parental self-efficacy research have noted that this variable has been targeted primarily as a bi-product of parent behaviour training. Research has provided support that parental self-efficacy can be increased through participation in many types of parenting behavioural interventions, including one-on-one coaching (Boyle et al., 2010; Raj & Salagame, 2010), support groups (Liu, Chao, Huang, Wei, & Chien, 2010; McDonald et al.,

2009; Morawska, Haslam, Milne, & Sanders, 2011), and peer mentorship (Flores et al., 2009). Additionally, parental self-efficacy has been found to predict parenting and other treatment outcomes in intervention programs (Gross, Fogg, & Tucker, 1995; Hoza et al., 2000).

Parental self-efficacy has been investigated as one of many indicators of success in clinical parenting interventions (e.g., Boyle et al., 2010; Flores et al., 2009; Liu et al., 2010; McDonald et al., 2009; Morawska et al., 2011). For example, parental self-efficacy has been found to improve after parental involvement in support groups for parents of premature infants (Liu et al., 2010), teenage mothers (McDonald et al., 2009), and parents of children with behavioural problems (Morawska et al., 2011). Parents of asthmatic children, with high levels of participation in a peer-mentorship program, reported larger increases in parental self-efficacy than controls and parents with low participation (Flores et al., 2009). Also, parental self-efficacy has been found to improve in parents of children with behavioural problems, both after a four-session behavioural intervention and at 4-month follow-up (Boyle et al., 2010).

The relationships between parental self-efficacy, parenting behaviours, and child outcomes have been described as complex and under-researched (Coleman & Karraker, 1997; Jones & Prinz, 2005). In critical reviews of the research, researchers have called for studies delineating the relationships between these variables, as well as, the development of intervention models and practice guidelines that specifically target parental-self-efficacy (Coleman & Karraker, 1997; Jones & Prinz, 2005; Raj & Salagame, 2010). To the knowledge of this author, only one intervention study has focused primarily on improving parental self-efficacy. Raj and Salagame (2010) investigated parental self-efficacy in parents of children with autism, and found that self-efficacy can influence parenting behaviours and parental enjoyment, and called for the development of intervention models that specifically address parental self-efficacy. However, the treatment model in this study focused directly on changing parent behaviour and did not address the relationship between parental self-efficacy and behaviour. Raj and Salagame found that parents participating in sensitized parent behavioural coaching reported significantly greater increases in parental self-efficacy than parents who participated in a general coaching intervention. Other researchers have investigated the relationship between parental self-efficacy and other treatment outcomes in intervention studies targeting parent behaviour (e.g., Gross et al., 1995; Hoza et al., 2000). In these studies, parental self-efficacy was found to predict targeted parent and child behaviours.

In summary, parenting has been named as an important determinant in the resiliency of children (Cassidy & Shaver, 1999; Luthar et al., 2000; Maston 2001). Researchers have moved beyond questioning *if* parenting affects resiliency and begun focusing on *how* it does so. For example, complex relationships have been shown between parenting quality and persistence, parental self-efficacy, and child outcome and resiliency (e.g., Candelaria et al., 2011; Cassidy & Shaver, 1999; Coleman & Karraker, 1997; Jones & Prinz, 2005; Stams et al., 2002). In applied studies of music and singing during infancy, researchers have begun to ask how singing to one's infant can support resiliency (Abad & Williams, 2007; Mackenzie & Hamlett, 2005; Nicholson et al., 2008; Vlismas & Bowes, 1999).

2.3 Resiliency Model

Researchers first began studying the phenomenon of resilience in the 1970s (Luthar et al., 2000; Maston, 2001). In a world of deficit-focused models, these pioneering psychologists and psychiatrists were intrigued by the children who developed healthily and even thrived in the face of genetic or experiential adversity. While previous studies centered around concepts like risk, pathology, problems, and treatment, resiliency researchers began exploring human abilities and adaptive systems.

Luthar et al. (2000) defines resiliency as the dynamic process of positive adaptation despite exposure to significant adversity or threat. The study of resiliency has shown that human development is threatened by factors that jeopardize common adaptive processes (Maston, 2001). Maston suggested that resiliency factors *can* include extraordinary variables, such as significant skills, exceptional caregiving, or other special resources. However, data from both variable-focused and person-focused resiliency studies demonstrated that resiliency is more often “a common phenomenon arising from ordinary human adaptive processes” (Maston, 2001, p. 234), such as brain development and cognition, caregiver-child relationships, close relationships with other caring prosocial adults within the wider community, skilled regulation of emotion and behaviour, motivation to learn and engage with the environment (Cicchetti & Garnezy, 1993; Luthar et al., 2000; Maston, 2001; Masten & Coatsworth, 1998). Initially, researchers focused on identifying factors implicated in resiliency development, such as individual attributes, familial aspects, and characteristics of the larger social environment (Luthar et al., 2000). More recent resiliency research has focused on “understanding underlying protective processes . . . [or]

striving to understand *how* such factors may contribute to positive outcomes” (Luthar et al., 2000, p. 544).

Developmental psychologists agree that establishment of the parent-child bond, also known as attachment, is the primary developmental process of infancy (e.g., Bowlby, 1982; Cassidy & Shaver, 1999), coincides with and affects brain development (e.g., Schore, 2001; Schore & Schore, 2008; Seigle, 2001), and is implicated in resiliency in later life stages (e.g., Bowlby, 1982; Bretherton & Munholland, 2008; Cassidy & Shaver, 1999). Both parenting behaviours and parental self-efficacy play a huge role in children’s resilience, since attachment is facilitated by efficacious parenting behaviours (i.e. warmth, consistency, sensitive responsivity, flexibility, enjoyment; Candelaria et al., 2011) and since parenting behaviors (ie. persistence, type of parenting behaviours) are clearly influenced by parental self-efficacy (e.g., Gross et al., 1995; Hoza et al., 2000). Interestingly, singing interventions have been developed to enhance parenting behaviors, parental self-efficacy, and, by extension, attachment and child resilience (MacKenzie & Hamlett, 2005; Nicholson, Berthselsen, Abad, Williams, & Bradley, 2008).

2.4 Music, Attachment, Parenting, and Self-Efficacy

Parenting behaviours can hugely impact children’s resilience (Cassidy & Shaver, 1999; Coleman & Karraker, 1997; Jones & Prinz, 2005; Luthar et al., 2000; Masten 2001). Recent studies have explored the benefits of singing to one’s infant (e.g., Abad & Williams, 2007; Mackenzie & Hamlett, 2005; Nicholson et al., 2008) and have proposed singing as a type of attachment behaviour that supports the development of resiliency(e.g., de L’Etiole, 2006; O’Gormon, 2006; O’Gormon, 2007), especially since infants have shown multiple musical abilities (e.g., Ilari & Polka, 2006; Trehub, 2001 2006) and preferences (e.g., Arnon et al., 2006; Nakata & Trehub, 2004).

2.4.1 Infants as music learners. Researchers have provided solid support that infants have musical skills from an early age (Trehub, 2006) and even in utero (Kisilevsky, Hains, Jackquet, Granier-Deferre & Lecanuet, 2004; Lecanuet, Granier-Deferre, Jacquet & DeCasper, 2000). Infants have the sophisticated ability to discern specific elements of music (Trehub, 2006). For example, they can discern pitch, melodic contour, timbre, and rhythm (Hannon & Johnson, 2005; Ilari & Polka, 2006; Trainor & Heinmiller, 1998). Also, infants are capable of learning music (Trehub, 2001). Infants can create mental representations of musical information

and store it in long term memory (Ilari & Polka, 2006; Trainor, Wu, & Tsang, 2004; Volkova, Trehub, & Schellenberg, 2006).

Infants enjoy music and even prefer singing to speaking (Coleman, Pratt, Stoddard, Gerstmann, & Abel, 1997). In fact, mothers' singing to their infants has been shown to improve premature infants' heart rate, oxygen saturation, and behaviour, more than mothers' speaking (Coleman et al., 1997). Moreover, infants showed a variety of musical preferences (e.g., Arnon et al., 2006; Nakata & Trehub, 2004; Trainor, Clark, Huntley & Adams, 1997). Infants show more physiological and behavioural effects after being exposed to live music than being exposed to recorded music (Arnon et al., 2006). Also, when parents watched the faces of infants exposed to either live or recorded music, they correctly identified the type of music to which they listened (Arnon et al., 2006). Infants preferred infant-directed singing to regular singing (DeCasper & Fifer, 1980; Nakata & Trehub, 2004). Infant-directed singing includes heightened pitch, exaggerated pitch contours, slow tempo, positive affect, and heightened expressiveness and emotionality (Trainor et al., 1997; Trehub et al., 1997). Also, infants recognized and preferred their mother's voice over strangers' (DeCasper & Fifer, 1980) and parent-preferred song over prescribed ones (Loewy, Stewart, Dassler, Telsey, & Homel, 2013). They preferred consonant music (Zentner & Kagan, 1998), single timbres (Ilari & Polka, 2006), directed songs (Trainor, 1996), and unaccompanied singing (Ilari & Sundara, 2009).

2.4.2 Singing as attachment behaviour. Attachment has been described as a universal, evolutionary-advantageous, interactive process in which primary caregivers need to be responsive to their children's needs in warm, timely, consistent, and appropriate ways (e.g., Beebe & Lachmann, 1988; Bowlby, 1982; Gerhardt, 2004; Schore, 2001, 2009). Researchers have suggested that infant-directed singing fits this definition, and can be described as an attachment behaviour (de L'Etoile, 2006; O'Gormon, 2006; O'Gormon, 2007). De L'Etoile (2006) suggested that mothers use infant-directed singing as a medium to show their availability to, and engagement with, their infant. By spending time interacting through song, infants can experience their caregivers as warm, present, and involved.

Bowlby (1969) described attachment as a universal survival mechanism. Indeed, mothers from many diverse cultures sing to their infants as a form of caregiving (Huron, 2003; Trehub & Schellenburg, 1995). Moreover, infant-directed singing has been proposed to be one of the earliest forms of music (Gaston, 1968). De L'Etoile (2006) suggested that when parents sing to

their infants, they are engaging in an interaction that has been used across time and space. De L'Etoile stated, "Singing to infants is considered a universal caregiving behaviour that occurs in every known human culture and has been documented throughout time" (p. 22).

Furthermore, researchers have suggested that singing has played a key role in the enculturation of young children and in the larger development of human civilization, and has served many practical survival purposes and increased human resilience (e.g., Habibi & Damasio, 2014; Jorgensen, 1997; Levitin, 2008). Researchers posit that human's use of music may have developed in conjunction with evolution of the human brain. (e.g., Habibi & Damasio, 2014; Jorgensen, 1997; Levitin, 2008). Recent reviews of neuroscience research implicate several neurochemical brain processes in singing, music listening, and other forms of music (Chandra & Levitin, 2013; Habibi & Damasio, 2014). Other researchers have asserted that infants are biologically predisposed to interpret caregiver singing because it improves their chances at survival and resilience (Huron, 2003; Trehub, 2001). Music-making has been described as a form of communication (Koelsch, 2010) and a vehicle for passing culture and survival knowledge between generations (Jorgensen, 1997; Levitin, 2008). More specifically, Huron (2003) suggested that by singing to their infants, prehistoric mothers soothed their infants, and improved their infant's attention and proximity (Huron, 2013). Indeed, recent neuroscience findings have found that music evokes changes in the nervous system (ex. temperature, heart & respiration rates, brain activation) related to homeostatic regulation (Habibi & Damasio, 2014).

Developmental psychologists describe attachment processes as interactive, bi-directional, and mutually reinforcing (Beebe & Lackmann, 1988; Bowlby, 1982). Other researchers have maintained that singing fits these criteria (Klein, as cited in O'Gormon, 2006; O'Gormon, 2006). For example, an infant's interest in his or her mother's voice may lead the mother to sing more. By singing more, the mother leads her infant to pay more attention, be soothed or aroused, and to respond with facial expressions and body movements. These infant responses encourage the mother to sing even more, become more focused on the child's response, and become more in tune with the child's needs. Thus, by singing to their infants, mothers trigger an interactive process that continually reinforces both mother and child's attunement to each other (O'Gormon, 2006). Similarly, Trehub (2001) proposed that infant-directed singing benefits the singer and the listening infant by calming and stimulating both. Furthermore, preliminary neuroscience findings indicate that music influences dopaminergic and opioid brain functioning associated

with reward, motivation, and pleasure (for review, see Chandra & Levitin, 2013). These studies suggested the neurochemical reinforcement of musical practices. However, more research is needed to replicate, establish, and extend these findings.

Bowlby (1982) and Ainsworth (et al., 1978) maintained that successful attachment interactions must involve parental responses that are tailored to the infant's needs. De L'Etoile (2006) suggested that caregivers can create diverse and sensitive responses to their infants using song. In fact, the quality of mothers' singing changes when they sing to their infants (e.g., Bergeson & Trehub, 1998; Trainor, 1996; Trainor et al., 1997; Trehub, Unyk, & Trainor, 1993). For example, mothers use a more loving tone of voice, higher notes, more sustained vowels and more gliding between pitches when singing to their infants (Bergeson & Trehub, 1998; Trainor, 1996; Trainor et al., 1997; Trehub et al., 1993). Also, mothers generally sing more slowly and more expressively when singing to infants (Trainor, 1996; Trehub et al., 1993). Not only are infants aware of the differences between infant-directed and undirected singing, they have been shown to prefer infant-directed singing (Trainor, 1996).

Parents must have access to a range of song functions, in order to tailor their responses to meet infants' needs using song. Indeed, music has the power to evoke a wide range of emotions (Sloboda & O'Neil, 2001) and is used for many purposes (Greasely & Lamont, 2011; North, Hargreaves, & Hargreaves, 2004; Pothoulaki, MacDonald, & Flowers, 2012; Terry, Karageorghis, Mecozzi, & D'Auria, 2012). Moreover, De L'Etoile (2006) described two types of infant songs that mothers can use to meet their infant's variable needs: lullabies and play songs. Lullabies are designed to soothe infants and put them to sleep. They employ simple repetitions, smooth descending intervals, and narrow pitch ranges (Trehub, Hill, & Kamenetsky, 1997). Alternatively, play songs are used to evoke playful interactions, heighten emotion, and increase stimulation. These two song styles are distinct; naïve adult listeners have been shown to discriminate 100% correctly between lullabies and play songs (Rock, Trainor, & Addison, 1999). Also, naïve adults have successfully discriminated between the two types of songs, by watching soundless videotapes of infants exposed to play songs and lullabies. In addition, infants have been shown to direct more attention on themselves while listening to lullabies, and to direct more attention on caregivers while listening to play songs (Rock et al., 1999). Therefore, type of song can be chosen based on infant's needs.

Furthermore, caregivers can further modify their delivery of lullabies to be more soothing, and alter play songs to be more arousing (de L'Etoile, 1993; O'Gormon, 2007; Trainor, 1996). Thus, caregivers have the ability to modify and tailor singing to their infants in order to meet infants' changing needs. In fact, researchers have shown that song can differentially regulate infants' production of stress hormone. In a study of the effects of a singing intervention on healthy 6-month-old infants' stress hormones, Shenfield, Trehub, and Nakata (2003) tested the level of cortisol in babies' saliva after their mothers sang to them for 10 minutes. Infants with high levels of cortisol, before the singing intervention, were found to have decreased cortisol levels, after their parents sang to them. In contrast, infants with low levels of cortisol, before the singing intervention, were found to have increased cortisol levels, after their parents sang to them.

In order that infant-directed singing be a truly interactive and responsive attachment behaviour, caregivers need a working feedback system (Bowlby, 1982; Gerhardt, 2004). Unless they are aware of the meaning of their infant's responses, caregivers are not able to alter their responses. By observing their infants' body movements, caregivers may be able to make sense of their infant's responses to singing (O'Gormon, 2006). Infants show that their needs are being met when they move smoothly and use synchronous body movements; transition smoothly between sleep and awakening; use self-consoling behaviours or are able to be consoled by outside sources (Als, 1982; Als, Lester, Tronick, & Brazelton, 1982; D'Apolito, 1991). Infants indicate that their needs are not being met when they use jittery or frantic body movements, have limp or flaccid muscle tone, use few self-consoling behaviours, or are not able to be consoled; and hiccough, sneeze, gag, or yawn repeatedly (Als, 1982; Als et al., 1982; D'Apolito, 1991).

Developmental psychologists have maintained that the most effective attachment behaviours are conveyed with warmth and affection for the enjoyment of both parent and child (Bowlby, 1982; Gerhardt, 2004). Similarly, researchers suggest that singing can convey such warmth and enhance the emotional bond between mother and infant (Bergeson & Trehub, 1999; Nakata & Trehub, 2004). O'Gormon (2006) suggested that infant-directed singing is "like a loving conversation between mother and baby" (p. 96). In fact, infants have shown a preference for their parents' positive affect while singing (Nakata & Trehub, 2004) and the singing of parent-preferred songs (Loewy et al., 2013). Moreover, preliminary neuroscience findings

suggest that singing and other forms of music may activate brain functioning associated with bonding and pleasure (Chandra & Levitin, 2013). Given the theoretical similarities between attachment behaviours and parent-infant singing, researchers have begun to investigate the effects of parent-infant singing on attachment and parental self-efficacy (e.g., Abad & Williams, 2007; Mackenzie & Hamlett, 2005; Nicholson et al., 2008).

2.4.3 Effects of singing intervention. Several studies have considered the effect of parent-infant singing on attachment (Abad & Williams, 2007; Lyons, 2000; Mackenzie & Hamlett, 2005; Nicholson et al., 2008; Oldfield et al., 2003; Oldfield & Bunce, 2001; Shoemark, 1996; Vlismas & Bowes, 1999). Most research on parent-infant singing has targeted parents struggling with multiple risk factors, such as first-time parents (Vlismas & Bowes, 1999), ethnic or disadvantaged parents (Lyons, 2000; Nicholson et al., 2008; Oldfield et al., 2003; Oldfield & Bunce, 2001), parents of infants with developmental delays (Shoemark, 1996), and parents of prematurely born infants (Haslbeck, 2012; Standley, 2002). In these studies, parent-infant singing interventions have been shown to be associated with parental satisfaction (Oldfield & Bunce, 2001), excellent parent and child engagement (Lyons, 2000; Oldfield et al., 2003), improved parent-child interactions (Lyons, 2000); decreased child behaviour problems (Nicholson et al., 2008); improved parental self-efficacy, (Nicholson et al., 2008) and enhanced social support (MacKenzie & Hamlett, 2005).

Much of the research on parent-infant singing interventions has been qualitative in nature. Most quantitative research on parent-infant singing interventions has been limited by lack of randomization and use of measurement tools without well-established reliability and validity. Only one study used a control group (Vlismas & Bowes, 1999) and all studies, except the *Sing & Grow* (Abad & Williams, 2007), and the *Music Together* (Mackenzie & Hamlett, 2005), have used other interventions in addition to the parent-infant singing. Furthermore, the singing programs and participants in these studies were based in Iceland, Brazil, USA, United Kingdom, and Australia. While a variety of conjoint parent-infant music classes are available in Canadian cities (e.g., <http://www.kindermusik.com>; <http://suzukitalented.org>) there are no investigations of Canadian parents' experiences in conjoint parent-infant singing classes, and no studies of Saskatchewan parents' experiences.

Nicholson et al. (2008) considered the effects of a 10-week group music therapy program on 358 high-risk parents and their 0- to -5-year-old children. Parents were young (24.3%),

diagnosed with depression (42.4%), and/or socially/economically disadvantaged (45.9%). Some children had disabilities (29.7%). The 10-week group program involved the use of music and songs to facilitate positive parent-child interactions, parental responsiveness, parenting self-efficacy, and child skill development. Of the 75% of parents who completed post intervention data, 89% reported that they used the program music activities at home for enjoyment, and 50% reported that they used it to manage challenging behaviour. Both parent- and therapist-reported child behaviour problems were significantly reduced for those children whose parents (53%) received a therapeutic dose (six sessions) and reported child behaviour problems pre-intervention. Parent-reported parental irritability significantly reduced, while parental self-efficacy and frequency of parent-child play improved significantly, between pre and post intervention measurements. In addition, quality of parental behaviour (sensitivity, engagement, and positive affect) and of child behaviour (responsiveness, interest, participation) increased significantly. However, measures of parental and child behaviour may have been biased, as they were rated by the therapists who ran the music intervention program. Moreover, a control group was not used to account for naturally-occurring developmental gains. More research is needed to replicate and extend these findings using unbiased raters and a control group.

Mackenzie and Hamlett (2005) investigated the effects of parent-infant singing intervention on 223 *well* families. Of the 63% who returned questionnaires, 93% of parents reported that they experienced enhanced interactions with their children within two sessions. Parents reported that they were singing, laughing, dancing, and interacting more with their children at home. Also, parents indicated that they used the learned music activities to calm their distressed children, to make travel time more enjoyable, and to incorporate into bedtime routines. Furthermore, 82% of parents reported that they made friends with other program participants. Parents noted that they received support and experienced reduced isolation through program attendance. This study suggested that singing interventions can be beneficial for parents and infants with fewer social, economic, and mental health struggles. However, more research is needed to replicate and extend these findings, especially since parent-infant singing within well families has only been documented in one study (Mackenzie & Hamlett, 2005). In addition to variation in the types of participants of parent-infant singing classes (Mackenzie & Hamlett, 2005; Nicholson et al., 2008), it is important to note the differences between varied purposes of

classes (<http://suzukiassociation.org>; Jones, 2004; <http://www.kindermusik.com/about/>; Mackenzie & Hamlett, 2005; Nicholson et al., 2008).

2.4.4 Singing programs. Singing is the most common musical activity in which parents engage with their infants (Custodero, Britto, & Brooks-Gunn 2002; Custodero & Fenichal, 2003; Ilari, 2005). Music courses for parent-infant dyads are popular in many countries (Gudmundsdottir & Gudmundsdottir, 2010; Ilari, 2004). Programs range in cost, composition, and purpose. Researchers have used these programs with at-risk parents and well parents (Mackenzie & Hamlett, 2005). Programs used with at-risk families (low income, children with disabilities, poor parental mental health, or other social or emotional challenges) have focused on enhancing the parent-infant attachment relationship, supporting positive and sensitive parenting, and enhancing social support and parental self-efficacy (Lyons, 2000; Nicholson et al, 2008; Oldfield et al., 2003). Other programs are marketed to parents with more leisure time and disposable income (Mackenzie & Hamlett, 2005). For example, *Music Together*, as described by Mackenzie and Hamlett (2005), is an ongoing preventative music program used to increase support, decrease stress, and prevent isolation for *well* parents. In addition the program was developed to strengthen early attachment and increase resiliency for *well* parents and their infants.

Parent-infant music programs can also be classified according to purpose, such as supporting sensitive parenting and enhancing parent-child interactions, teaching early music skill, and advancing development (Jones, 2004; Mackenzie & Hamlett, 2005). *Kindermusik*, *Suzuki*, and *Music Together* are examples of these programs. *Kindermusik* programs boast that early music exposure and participation is associated with cognitive, social, emotional, language, and musical development (<http://www.kindermusik.com/about/>). Alternatively, the *Suzuki* method involves early cultivation of music-making skills and an intrinsic love of music in order to enhance total development of the child (<http://suzukiassociation.org>; Jones, 2004). *Sing and Grow* is an early childhood intervention based on attachment theory and was developed to enhance parental sensitivity and skill and enhance the quality of parent-infant interactions (Nicholson et al, 2008). *Music Together* is similarly advertised as a research-based music education program that emphasizes parental and family involvement and “supports the natural bonding experience” (<http://www.musictogether.com/MTWorld>; Mackenzie & Hamlett, 2005). Although the end-goal of participation in certain singing programs (i.e., *Kindermusik*, *Suzuki*) is

not the parent-child relationship, the programs involve parents engaging in sensitive, warm, enjoyable, connecting activity with their infants. Singing instructors may encourage parents to incorporate singing to/with their infants into their home life

(<http://www.kindermusik.com/about/>). After participating in parent-infant singing classes, parents have been shown to spend more time using singing to connect with infants, gain skills to ease infant crying and transitions, and build stronger parent-infant relationships (Mackenzie and Hamlett, 2005; Nicholson et al., 2008).

Given the varied types and purposes of parent-infant singing classes (<http://suzukiassociation.org>; Jones, 2004; <http://www.kindermusik.com/about/>; Mackenzie & Hamlett, 2005; Nicholson et al., 2008), it is possible that parents experience different benefits based on their class purpose, methods, etc. However, researchers have not yet explored *how* parent-infant singing benefits parents differentially according to class type.

2.5 Conclusion

Researchers have suggested that singing research has important implications for prevention and treatment models of child development and resilience (de L’Etiole, 2006; Jones, 2004; O’Gormon, 2006; O’Gormon, 2007). Initial investigations have provided support that participation in parent-infant singing classes leads to enhanced parental sensitivity and parental self-efficacy in at-risk (Abad & Williams, 2007; Mackenzie & Hamlett, 2005; Nicholson et al., 2008; Vlismas & Bowes, 1999) and well parents (Mackenzie & Hamlett, 2005). However, the singing programs and participants in these studies were based in Iceland, Brazil, USA, United Kingdom, and Australia. While a variety of conjoint parent-infant music classes are available in Canadian cities (e.g., <http://www.kindermusik.com>; <http://suzukitalented.org>) there are no investigations of Canadian parents’ experiences in conjoint parent-infant singing classes, and no studies of Saskatchewan parents’ experiences. Therefore, more information is needed on Canadian parents’ experiences, and motivations for, participating in singing classes with their infants in order for parents and professionals working in the community to better understand and support healthy parenting behaviours and infant development.

Chapter 3: Methodology

3.1 Rationale for Qualitative Inquiry

Qualitative research is the holistic study of a smaller number of particular people and contexts (Given, 2008). This type of research can provide a wealth of data rich in depth and detail. In general, qualitative inquiry involves lush detailed recountings, as does the more specific basic qualitative methodology (Merriam, 2002). This paradigm was appropriate for the current study because of its ability to generate a “richly descriptive” (Merriam, 2002, p.5) picture of mothers’ experiences and perspectives.

The goal of a qualitative researcher is to gather deep understanding of how participants experience a phenomenon and the meaning they attribute to it (Merriam, 2002). Qualitative research is anchored in the perspective that human beings construct knowledge and meaning by engaging and interacting with the world (Merriam, 2000). In this study, parents’ experiences of participating in singing classes with their infants were explored. Therefore, a qualitative research paradigm seemed most appropriate, since qualitative research is built on an *insider perspective*, or a participant’s subjective unique understanding of a social setting, phenomenon, and/or process (Creswell, 2003; Merriam, 2002).

Researchers often use a qualitative approach to delve into previously uncharted topics and to better understand and explain under researched phenomena (Patton, 2002). Qualitative researchers generate exploratory data that can be later used to inductively build hypotheses, theories, and concepts (Given, 2008; Merriam, 2002). This study was exploratory in nature. Extensive literature searches in multiple databases did not reveal any studies that have considered Canadian parents’ perceived motivations for, and benefits gained by, participating in singing classes with their infants. Furthermore, authors from around the world (e.g., United Kingdom, Australia, U.S.A., Iceland) have noted the paucity of research on parents’ experiences in parent-infant music classes in any country (e.g., Abad & Williams, 2007; Nicholson et al, 2008), especially in well parents (Mackenzie & Hamlett, 2005). Therefore, more information is needed on Canadian parents’ experiences, and motivations for, participating in singing classes with their infants in order for parents and professionals in the community to better understand and support healthy parenting behaviours and infant development. This initial exploratory study will help to address this gap in the literature. Specifically, the research questions guiding this preliminary inquiry, were:

- (1) What do parents identify as factors motivating them to participate in parent-infant singing classes? and
- (2) What do parents identify as the benefits of participating in parent-infant singing classes?

3.1.1 Basic qualitative research. The present study used a *basic qualitative* research methodology to explore parents' perceptions of the benefits of participating in singing classes with their infants.. This applied approach was used to explore how participants make sense of, and attribute meaning to, their experiences and their lives (Merriam, 2002).

A basic descriptive and interpretive qualitative method was selected because of its ability to understand and explain previously under researched phenomena and processes, such as parents' experienced benefits, and discover new contextual variables, such as parental motivations and class choice. Furthermore, a basic qualitative research approach is often used in applied, practice-focused fields (Merriam, 2002). Therefore, this approach was chosen to explore parents' experiences in music classes, and, ultimately, to add to the literature in the applied fields of educational psychology, music therapy, and psychology.

3.2 Participant Selection and Recruitment

Six parents attending a community music program offering both a Musical Parenting (MP) and a Suzuki singing (SS) class were recruited to participate in this study in the fall of 2012. Both of these conjoint parent-child music classes were offered once a week for 45 minutes for 14 weeks. Parents paid a fee for attendance; however, bursaries were available for low-income families. Both classes consisted of eight to ten parent-infant pairs. The infants in these groups were between 0 and 3 years of age. Instructors in these classes taught songs, chants, and nursery rhymes to parent-infant pairs. Both classes included some use of movement and instruments. The classes were described by program advertisements as being designed for different purposes and using distinct methods. The MP class advertisement states that its instructors teach parents and their infants songs, chants, and nursery rhymes; coach parents and infants to connect and communicate through song; and, through song, help infants to establish a foundation for music, movement, language, and mathematics development. Furthermore, singing is advertised as a way for parents and infants to form a strong bond, convey feelings, express emotions, and improve overall well-being. In contrast, the SS class is advertised to provide parents and their infants the ability to experience and learn about the Suzuki method at a

time when infants are too young to start instrument lessons. The SS class is described as enhancing early music skills in preparation for learning to play an instrument at an early age. Suzuki instrument classes are also offered for children 3 years of age and older. In these classes, parents are expected to learn to play the same instrument along-side their child.

This study was exploratory in nature, therefore, the student researcher planned to recruit a small sample of one instructor and three participants from each class, and three participants from each class' waiting list. Recruitment was designed to focus on rich, in-depth understanding, as opposed to empirical generalization (Patton, 2002). Parents signed up for the classes by phone, or email. Parents were emailed recruitment posters. Only one parent contacted researcher after being emailed the recruitment poster. The community music program manager reported parents are often already overwhelmed during the first class, because they are exposed to a lot of new routines, names, songs, and other information. She suggested that recruiting during the first class would be too overwhelming and confusing for parents, and she invited the student researcher to recruit participants during the second week of classes. Additionally, the program manager invited the student researcher to attend one SS and one MP class, in order to observe the classes first-hand.

The student researcher attended a MP and SS class and made observation notes at the end of the class. The student researcher recruited participants by talking to each music class about the study (see Appendix C), and handing out recruitment posters (see Appendix A), at the end of the class. Then, parents had the opportunity to speak more to the student researcher, ask questions, sign up to participate, and/or, provide contact information. During these visits, the student researcher invited the instructors to participate in the present study (see Appendix D), gave them recruitment posters (see Appendix B), answered instructors' questions, and collected contact information. Also, the program manager emailed recruitment posters to parents on waiting lists for the SS and MP classes (see Appendix E), however, none of these parents contacted the student researcher. Two instructors and four parents met the inclusion criteria and completed the study. Additionally, two parents completed the first data collection, but did not complete the second and third as one was out of country during the second and third data collections and the other could not be reached. *Purposeful sampling* was used to select parent and instructor participants from the community music program. Several community music programs in a Western Canadian city were considered and a program was selected because it was

the only local program that offered two distinct types of classes. That is, each class was advertised as being designed for different purposes and using some different methods. Selecting this particular music program allowed for greater breadth and depth of data by exploring participants' experiences in parent-infant music classes, while allowing for some distinct experiences and motivations based on participants' class selections. Inclusion criteria for parent participants were: (a) more than 18-years-old and in the adult life stage (completed school, in the workforce, and/or supporting self), (b) participation: registered in the fall 2012 semester of either MP or SS classes, and (c) language: English-speakers. Inclusion criteria for instructor participants were: (a) instructor status: teaching a class in the fall 2012 semester of either MP or SS classes, and (b) language: English-speakers. There did not appear to be any major differences between the mothers who did, and did not complete the full study. Data analysis was completed only for data obtained from mothers who completed the full study.

3.3 Data

3.3.1 Class observations and demographic questionnaires. Data related to parent-child participation in a music or singing class was collected in five formats: class observations, demographic questionnaires, Parenting Sense of Competence Scale (PSOCS), Keys to Interactive Parenting Scale (KIPS) scores, video recorded parent-child play interactions, and interviews. The first data source was class observations. One MP and one SS class were observed by the student researcher prior to recruiting participants, so a better understanding of the class activities could be gained and so observations could be documented.

Once parents agreed to participate, they were given the choice of meeting either in their own home or in the lounge at the building in which the music classes were delivered. During the first meeting, the consent form (see Appendix F) was reviewed with each parent participant and signed.

The second data source was demographic questionnaires (see Appendix H). Parents were asked to fill out a short demographic questionnaire in order to gather basic information about participants. The questionnaire included questions about the age of parent, age of child, sex of parent, sex of child, number of children in family, marriage status, income, ethnicity, previous musical experience of parent, and motivation for participating in the class.

3.3.2 The parenting sense of competence scale (PSOS). The Parenting Sense of Competence Scale (PSOCS; see Appendix I) was the third data source which was used to gain

information about parental self-efficacy, defined as participants' self-ratings of their own competence and effectiveness as a parent (Johnston & Mash, 1989). Also, the information gained from the PSOCS was used to triangulate data from participant interviews. In a recent review, Jones and Prinz (2005) determined the PSOCS to be the most frequently used measure of parental self-efficacy. The PSOCS consists of a 17-item questionnaire that is completed using a 6-point Likert scale (1=strongly disagree...6=strongly agree). High scores indicate high parental self-efficacy; items 1, 6, 7, 10, 11, 13, 15, and 17 are reverse scored. The PSOCS produces three subscales (Satisfaction, Efficacy, Interest) and an overall self-efficacy index (Gilmore & Cuskelly, 2008). Researchers have done few studies of validity and reliability and they have found little evidence of the same. However, the PSOCS can be used with a broader group of parents than other scales. It is one of the few measures of self-efficacy with items general enough to be relevant to parents of children of all ages, as opposed to targeting parents of children of specific age groups (Rogers & Mathews, 2004).

3.3.3 The keys to interactive parenting scales (KIPS). The Key to Interactive Parenting Scale (KIPS) was the fourth data source administered to gain additional information related to parent participation in parent-child singing groups (i.e., parenting behaviours), and to triangulate data from parent interviews. The KIPS was developed by Comfort and Gordon (2006) as a structured observation tool to observe spontaneous parenting behaviours, monitor family progress, evaluate program goals, and guide intervention services. The following evaluation was composed using both raters' field notes and it includes information regarding the training and rating process, and the ease, expense, convenience, and validity of the KIPS.

Two raters were trained to use the KIPS using a 10-hour online training program. The training program includes overview and instruction slides, video examples of real parents and children, scoring practice and immediate scoring feedback, email access to expert parenting and technical supports, and internet access to archived KIPS TIPS Newsletters, and internet access to the KIPS Library. Forms to record observed behaviours and scores for each item were available online and/or by mail. The KIPS Library is an additional resource for trainees that includes a searchable collection of videos, additional scoring practice and feedback, and information about other frequently asked questions. Videos and practice opportunities can be chosen by child or caregiver characteristics.

In the present study, each mother and her child were videotaped at two different dates for 20 minutes while playing together at home, or in a room at the classroom site. Two raters then independently rated the videotape segments on 12 items using a 5-point scale. One of the raters was blind to the ordering of each parent's two videotaped play sessions.

Raters provided mostly positive feedback about the ease of training and rating. Raters found the training to be "easy" to access and "navigate" and described the training slides, videos, and feedback to be "informative," "understandable," and "easy to follow." Both raters noted that the video and sound quality were "good." One rater reported finding it "nice to know that I could email a real live person if I had any problems or questions that weren't answered in the online training." The other rater noted that she particularly liked the "immediate feedback" provided after each practice item. Raters appreciated the "flexibility" of the online access. That is, they were able to "set [their] own pace," "access the training site" from "multiple" sites without having to "travel" out of their way, and break up the training into sections" to be completed by each rater's schedule and preferences.

Raters indicated that they found the rating challenging, but manageable. For example, one rater described the rating process as requiring "a lot of jumping around" as the rater "watched part of a video, paused [the video], quickly scribbled notes for two items, watched more [of the video], paused, quickly scribbled notes for different items, etc." The other rater confirmed that she used the same process to watch and rate the videos.

Of the few valid and reliable observational measures of parental sensitivity, most involve time-consuming and expensive on-site training available on campuses of American universities, or Canadian universities that are several provinces away. Thus, using these measures would require a higher cost (time, money) to the researcher and a larger time commitment from participants. As it is, mothers (Dennis, 2004; Gavin et al., 2006; Kukreja et al., 2012; Milgrom et al., 2012; Sword et al., 2012) and fathers (Don & Michelson, 2012; Wee, 2011) of infants often have little time and energy to spare, as they often struggle with adjusting to new roles, schedules, and responsibilities and are at risk for developing mental health issues.

By comparison, the KIPS training and rating processes required a lesser time commitment, and a minimal monetary cost. In terms of time commitment, raters reported that they completed the online KIPS training in approximately 11 to 12 hours. Both raters reported that they wrote notes while watching videos and frequently paused the video to finish writing.

They confirmed that they watched and rated each video in a total of approximately 30 minutes. Additionally, the researcher spent 20 minutes taping each video. Also, the researcher taped the video either in the participant's home, or at the classroom site, so she also spent 30 to 50 minutes driving to and from the site.

In terms of monetary cost, the KIPS training was minimal. The training was available online therefore, raters did not have to spend time or money on travel. No additional training or scoring materials were required, other than the forms for behaviour notes and scores that were provided. Data collection required some sort of videotaping technology. A smart phone was used in the present study; raters described the audio and visual quality as "good." However, researchers should be advised not to block the smart phone's microphone while holding the device. This is easy to do since the device is small and the microphone placement is somewhat hidden. Furthermore, data collection did not require lab space, as the student researcher met participants in their homes or at the classroom site. It should be noted that a secondary site should be offered to parents, in addition to a home visit. Some parents reported that they were more comfortable meeting the student researcher in a neutral site. After rapport was established in the first data meeting, parents then invited the student researcher into their home for the second and third meetings. On the other hand, some parents noted that they found it more convenient to avoid travel by inviting the student researcher into their home.

A second meeting with parents and their child was scheduled within three weeks of the completion of the class. During this meeting, participants completed the PSOCS for a second time and the student researcher observed and video recorded approximately 20 minutes of parent-infant spontaneous play.

The student researcher and a research assistant viewed the video-recordings, recorded structured behavioural observations for each item, and scored the caregiver using a 5-point scale on 12 items. Both raters were required to participate in a 10-hour interactive internet training program, involving progressive introduction to items, practice rating of video examples, immediate feedback, and successful completion of certification exam.

3.3.4 Participant interviews. Interviews were the fifth and final source of data. Interviews were used to collect data on parents' perceptions of benefits gained through singing class participation with their infants. After completing and scoring the KIPS, the student researcher met with parents for a third time for an audio recorded semi-structured interview (see

Appendix J) and talked to two instructors by phone for a semi-structured interview (see Appendix K). The student researcher reviewed consent with parents and verbally went over the consent form with instructors (see Appendix G), answered any questions, and collected verbal consent for participation in the study. As each instructor gave her answers to interview questions, the student researcher typed them into a transcript. Parent and instructor interviews began with rapport building and were guided by question sets. The interview format was flexible, in order to accommodate each participant's digressions, and discussion of unanticipated topics. After the interviews, the student researcher verbally debriefed and thanked each participant for their participation.

Each participant was given a copy of his/her transcript to read (see Appendix M). Participants were given the opportunity to add, delete, and/or change parts of their transcripts and then asked to sign a transcript release (see Appendix L). Participants were given a \$20 gift certificate as compensation for their time and effort. Parent participants spent a total of approximately 1 hour and 45 minutes in the study. Instructor participants spent a total of approximately 30 minutes in the study.

3.4 Data Analysis

Qualitative data analysis is an inductive process in which the researcher immerses him or herself in the data and makes sense of it (Merriam, 2002). The student researcher read over the interview transcripts once to become more familiar with the data. Then, she read the transcripts and observation notes several times while making notes in the margins about key ideas and phrases, which is a process called open coding (Merriam, 2002). After finishing notations, the transcripts were read and compared to each other for similarities and unique experiences, repeatedly. During re-readings, the student researcher continued to reinterpret and regroup the data based on reoccurring themes. After the themes were determined, the transcripts were read once more and the student researcher began synthesizing all data sources in written form. In this way, data were inductively analyzed for recurring themes, presented through detailed rich descriptions, and discussed in reference to related research literature (Merriam, 2002). Thus, the basic qualitative researcher interprets participants' understandings to create the final product of basic qualitative research (Merriam, 2002).

3.5 Evaluation Criteria

Qualitative research is evaluated based on its cohesiveness, credibility and dependability, and presence of positionality and voice.

3.5.1 Credibility and dependability. The quality of a qualitative study is judged by its credibility (Schwandt, 2007), and dependability. Credibility is defined as the degree to which the study's results capture participants' real experiences and perspectives (Creswell & Miller, 2000; Schwandt, 2007). Methods, such as triangulation, member checking, and thick description, contribute to the credibility of a research project. Dependability is defined as the degree of consistency between results and the collected data (Lincoln & Guba, 1985). Methods, such as triangulation and the researcher's position or reflexivity, contribute to the dependability of a study (Merriam, 2002).

3.5.1.1 Triangulation. Triangulation is defined broadly as the combination of multiple methods, data sources, investigators, and analyses to study a phenomenon within a single study (Denzin, 1978). Researchers use triangulation to seek convergence of multiple data sources and ensure credibility of findings. Data triangulation, or the use of multiple data sources across time, space, and person (Creswell & Miller, 2000), was used in the current study. Data were collected from different people (one student researcher, two observers/raters for KIPS, four parents, and two instructors), settings (classroom, participant homes, instructor phone interviews), and time (three parent data collection points, one instructor data collection point, three observation points).

3.5.1.2 Member checking. Member checking is a process by which the researcher attempts to improve the credibility of interview recordings (Byrne, 2001), and was used in the present study. After interviews were completed, the contents of the audio-tapes were transcribed. Participants (including parents, infants, and instructors) were given pseudonyms to protect their identities. Transcripts were given to participants to review for accuracy. Participants were given the opportunity to add, delete, and/or alter transcripts. Two participants chose to make some minor changes to which student researcher agreed. If participants consented, they signed a transcript release form. All participants consented to release data.

3.5.1.3 Thick description. The current study was written using thick description, which is one procedure that qualitative researchers use to establish credibility (Creswell & Miller, 2000). By including such vivid details, the researcher "creates verisimilitude, statements that

produce for the readers the feeling that they have experienced, or could experience, the events being described in a study” (Creswell & Miller, 2000, pg. 129). Thus, readers can better judge the credibility of the researcher’s account by reading rich detailed in-depth accounts of the participants, contexts, and themes. Moreover, vivid details allow the reader to make his or her own decision about the generalizability of findings to similar settings.

3.5.2 Positionality. Researchers bring their own history, motivations, and assumptions to the research they undertake (Caelli, Ray & Mill, 2003; Lincoln, 1995). The researcher is “the primary instrument for data collection and data analysis” (Merriam, 2002, p. 5) and each decision in the research process is mediated through the researcher. Positionality allows the researcher to express his or her own theoretical position, in order to support the research’s credibility (Caelli et al., 2003; Lincoln, 1995). My interest in attachment led me to consider conducting research in the area of music and attachment. My parents and I have struggled with depression and anxiety, and I have experienced the stress these disorders have put on our academics and careers, self-image and confidence, and relationships with family and significant others. As a counselor, I have seen many clients struggle to emotionally manage their poor and/or traumatic relationships with their families. Attachment is one of the major theories that inform my therapeutic relationships with clients and my understandings of clients’ present struggles. In particular, I view the relationship between parent and child to be vitally important to the child’s development and resilience. Also, I enjoy and value music-making and I am proud of my musical skills. I have sung in my high-school and community choir and taken many years of voice and piano lessons. Thus, I was interested to know if singing can support parent-infant attachment. I was aware that my beliefs, experiences, and interests could direct my focus and that I would have to carefully seek and consider contradictory or unrelated participant experiences.

3.5.3 Voice. Qualitative researchers have a responsibility to seek out alternative and silenced voices and to make sure that all voices are equally engaged and heard (Lincoln, 1995). Authors have noted the paucity of research on parents’ experiences in parent-infant music classes (Abad & Williams, 2007; Nicholson et al., 2008), especially in well parents (Mackenzie & Hamlett, 2005). Moreover, parents’ experiences of the relationship between class choice and perceived benefits have not yet been sought out. The student researcher aimed to support

parents' voices to be heard regarding their motivations and needs within parent-infant music classes.

3.6 Ethical Considerations

Ethics approval was granted on July 10, 2012 by the University of Saskatchewan Advisory Committee on Ethics in Behavioural Science Research. The study was considered a minimum risk project, as the research involved adult participants who were over the age of majority. The collected data focused on parent's behaviours and perceptions regarding class participation and parenting behaviours. This data did not involve sensitive or embarrassing issues. The student researcher did not use deception during this study. Parents' willingness to participate was indicated by their signing of the consent form during the first meeting. Instructors' willingness to participate was indicated by their verbal consent by phone which was documented. Consent was verbally affirmed prior to each data collection meeting; participants were told upon each meeting that they were free to withdraw at any time.

Approval for subsequent modifications to the study was granted by the Chair of the Behavioural Science Research Ethics Board at the University of Saskatchewan. The first modification included using a video-recording software application to record play sessions and a voice recording software application to record mother interviews on a password-protected smart phone. Immediately after each play session and interview, video- and audio-files were transferred to the student researcher's password protected computer and deleted from the smart phone. This video- and audio-recording protocol was explained to participants during the consent process, and participants were given the opportunity to ask any questions, and have concerns addressed. Interviews were later transcribed by the student researcher. The second modification involved changing the consent process for the two instructors. The revised procedure included: (1) verbally presenting the information in the consent form to the instructors; (2) verbally asking if the provided information was understood and whether the instructors have any questions or concerns; (3) asking the instructors if they give their consent to participate; and (4) printing the instructors' name into the consent form and signing/dating the form (if the instructors gave verbal consent). Also, the revised consent form included the following statement: "I read and explained this Consent Form to the participant before receiving the participant's consent, and the participant had knowledge of its contents and appeared to understand it."

3.7 Chapter Summary

In summary, a basic qualitative research approach was used in the present study. This study explored Canadian parents' experiences in, and motivations for, participating in parent-infant music classes in order for parents and professionals in the community to better understand and support healthy parenting behaviours and infant development. Observations of participants and their infants, information from completed demographic questionnaires, the PSOCS, and the KIPS, and participant interviews were sources of data collected from participants (i.e., four mothers and two instructors). Triangulation, member checking, and thick description were used to contribute to the study's credibility and dependability. In the subsequent chapter, the demographics of the participants are discussed and the themes presented.

Chapter 4: Results

In this chapter, the participants who contributed to this research are introduced. In order to protect participant confidentiality, pseudonyms were chosen. Participants' quotations were often edited to protect confidentiality and increase readability. For example, specific names were altered or eliminated and repetitive and unnecessary words (e.g., yeah, you know, like) were deleted. Four major themes were identified in the information collected from participants, and meaningful quotes were discussed and linked together. For organizational purposes the themes are ordered numerically. The themes found were as follows: (1) mothers' motivations; (2) enhanced parenting, (3) mothers' enhanced view of self, and (4) predictors of change.

4.1 The Participants

Four parents and two instructors enrolled in one of two conjoint parent-child singing classes offered by a neighbourhood music program participated in this study. Parents attended one of two classes: the Musical Parenting (MP) or the Suzuki Parenting (SP) classes. Parents in both classes attended weekly 45-minute conjoint parent and child music classes, in which instructors taught songs, chants, and nursery rhymes to parent and infant pairs. In addition, parents and infants participated in choreographed movement-making and instrument-playing while singing.

4.1.1 The mothers. All participating parents were married women in their mid-twenties to late-thirties. The two mothers in the SS class had no musical background. One of the mothers in the MP class reported that she had taken music in school, and the other mother indicated that she had taken formal music lessons. Two of the mothers were homemakers, one was a student, and one was both a student and employed. Three of the mothers were attending a class with their first-born child, and one of the mothers was attending with her third child. Three mothers were taking the class for the first time, one mother was taking it for the second time, and two mothers had experience in other classes that involved singing, rhyming, and instrument playing. Participants' identities were protected through the use of pseudonyms to ensure their privacy. This was communicated to participants to prevent negative consequences and to ensure that they felt able to speak freely without negative consequence

The first participant to be interviewed was Elaine. Elaine was a 38-year-old university student and mother of three who enjoys music. Elaine shared that she thinks "music is important to learn," and has taken formal music lessons in the past. Elaine and her 2-year-old son, Jeremy,

were attending the MP class for the first time. Elaine reported she took Jeremy's siblings to parent-child singing classes when they were younger, but that "we don't really have time for that [with Jeremy]." Elaine stated she joined the class "because it is interactive" and she was "looking for something that just us could do . . . that we could do together." She described the MP class as "the chance to go and focus on Jeremy and just be one-on-one with him." Elaine's KIPS and PSOCS scores increased between the first and second administration. Raters scored Elaine as being more involved in her child's activities in their second meeting, than in their first. For example, raters noted Elaine as using an "animated voice [and] facial expressions" more often and acting "more playful." Raters also scored Elaine as better adapting to her child's interests and abilities during their second meeting. In the second meeting, Elaine rated herself as feeling more interested in parenting, seeing parenting as rewarding, better meeting her own parenting expectations, and being a better role model for other parents.

Beth was the second participant to be interviewed. Thirty-year-old Beth and her 1-year-old son, Jay, were attending the MP class for the first time. Jay was Beth's first child. Beth noted she has not had much formal music instruction, outside of school music classes. Her own parents "didn't really sing" which resulted in Beth's lack of early music exposure or familiarity with children's songs. Beth reported she was "not really a singer," but she joined the MP class on the recommendation of a friend for "a little fun" and for "variety" in the type of community activities in which her family typically participate. Beth reported that she plans to continue engaging in musical activities with Jay when she returns to part-time work later this year. Additionally, Beth noted she signed up for the class because she felt guilty about an upcoming return to work:

I'm going back to work part-time right away so we won't have as much time together . . . It [attending the MP class] is a fun activity where we get to spend time together. Maybe then I'll feel better about being away from him for longer. It'll make it easier . . . I don't want to miss out.

Beth's KIPS scores increased between the first and second administration. Raters scored Beth as being more encouraging with her child in their second meeting, than in their first. For example, raters noted Beth used more sincere words, voice tones, and actions when giving her child positive feedback on tasks. In her second meeting, Beth's rating of her parenting self-efficacy indicated she experienced decreased parenting frustration and tension, increased ability to solve

parenting problems, enhanced parenting skills, and increased ability to meet her own expectations as a parent.

Farrah was the third participant to be interviewed. Farrah was a 25-year-old graduate student with no formal music instruction growing up. She shared she certainly “would have loved to” have had formal music instruction since early and continued music lessons had a “really positive effect” for her husband. Farrah reported that she started thinking about the role of music in her baby’s life during pregnancy:

When I first got pregnant I started researching a bunch of different things and I think music is ranked really high for me on helping with development, helping with acquiring different learning skills. Not only, because I had read before about numbers and math and all that, but - and also, together with my reading and researching, I desired that she would be starting music from an early age.

Farrah first noticed her daughter Ciara’s enjoyment of music during a local library baby program involving stories, lullabies, and nursery rhymes. Farrah began “going to three different libraries because [Ciara] loved it so much. It was the best part of her day.” This influenced Farrah to search for a dedicated music program in which the instructors “know what they’re doing” and could “guide [Farrah] through this music stuff.” Farrah and one-and-a-half-year-old Ciara were attending the SS class for the first time. She reported she planned to re-enroll for additional sets of classes in the future. Farrah’s KIPS scores increased between the first and second administration. Raters scored Farrah as being more involved in her child’s activities and more encouraging in their second meeting, than in their first. For example, raters reported that Farrah gave more positive feedback and that her interest in her child appeared more “sincere” and full of “energy.” Also, rates scored Farrah as engaging her child in more language experiences, such as extending her child’s words into larger phrases or sentences, and in setting more appropriate and consistent limits. In her second meeting, Farrah’s rating of her parenting self-efficacy indicated she experienced increased ability to solve parenting problems, enhanced parenting skills, and increased ability to meet her own expectations as a parent.

The last parent participant to be interviewed was Ursula. Ursula was a thirty-four-year-old teacher who reported that she has always enjoyed music. She encouraged her nearly 2-year-old son, John, to enjoy music, even before joining the SS class:

I am the elementary teacher who wants to sing and dance all the time. I had a lot of kids CDs and kids' music beforehand. It was something that was already on my iPod. We have always had that level of music on for [John]. And actually I'm the one who pushes my friends and says, "Look, you should play children's music. Not just the radio because it's going to help with pronunciation and it's not just a bunch of blurred music on the radio. She can actually hear the words. She can learn them.

Despite her love of music, Ursula was "intimidated" and "scared ... half to death" to join the SS class because she sees herself as "not musical at all." Ursula was embarrassed to sing in front of her SS classmates and recital audiences, even though she enjoys music, understands its value, and incorporates music into the elementary classrooms that she teaches. Ursula enrolled herself and John in the SS class, despite her self-proclaimed lack of musical talent, mother and son were attending their second round of SS classes. Ursula's PSOCs, but not her KIPS, scores increased between the first and second administration. Raters scored her parenting (KIPS) similarly between ratings, but Ursula rated her parenting self-efficacy (PSOCs) as higher during the second administration. She rated herself as feeling more interested in parenting, seeing parenting as rewarding, better meeting her own parenting expectations, and being a better role model for other parents. During the course of their music class, Ursula gave birth to her second child. Therefore, John attended some of the SS classes with his father or grandmother.

4.1.1 The instructors. Two Prairie Music Program instructors agreed to participate in this study: Madeline and Sarah. They were interviewed to learn more about the content and functioning of the parent-infant singing classes. Madeline and Sarah have taken training in the Kodaly method and the Suzuki Early Childhood Education method. They are both accredited music instructors through the Suzuki Association of the Americas and the International Suzuki Association. Both instructors have taught the Musical Parenting (MP), and the Suzuki Singing (SS) classes over their years working for the Prairie Music Program.

The first instructor to be interviewed was Sarah. Sarah has taught Prairie Music Program classes during the past six years. She previously taught private music lessons for 30 years. Sarah reported she has taken both of her grandchildren to a conjoint music class. She noted she "took the second [grandchild] longer than that first and I think I have a stronger bond with the second." Sarah reported in her class she sees parents improving their relationships with their children:

[In the music class], parents and children build a special bond . . . The parents in the class work on that bond: walking with their child, hugging their child, doing actions with their child. That's a really special relationship that develops. Not that it isn't already there, but you build on it.

Additionally, Sarah reported that, as an instructor, she supports parents and teaches them parenting skills in addition to teaching them music:

We [the instructors] are taught that if a parent leaves the classroom with a screaming child, one of the instructors always goes out with them. I don't go out to calm the child, I go out to calm the parent. Because when the parent gets less tense, the child will stop crying and screaming. It's so much more than the music.

Madeline was the second instructor to be interviewed. Madeline has taught Prairie Music Program classes for the past 15 years, and has ten years of experience teaching music privately. (She also acts as the director of the music program.) In addition to teaching parents to sing songs using games, rhymes, and instruments, Madeline described teaching parents to sing songs using games, rhymes, instruments, and quotes to discuss the importance of early music education with parents:

The quotes are about what musical things are appropriate: acapella singing, simple melodies. Making sure parents understand the value of music; it's not just another thing to do. Music is much more than fun. We know that now from research. All babies are wired for music. They respond to it and they love it, but if you don't give it early the window closes.

Madeline described her teaching parents more than just music:

I try to teach them how to have fun every time and engage their children. It's simple yet powerful. I get parents to watch their child. And use energy in your body, in your voice. Use inflection. We talk in each class about the importance of bonding, experiencing joy with your child.

4.2 Theme 1: Mothers' Motivations

Four common themes were found during analysis of parent and instructor interviews. The first common theme was mother's motivations for joining a conjoint parent-infant singing class, which included enjoyment, socialization, convenience, and the importance of music. All four parents reported they and their children enjoyed participating in their Prairie Music Program

parent-infant singing class. Farrah shared the biggest benefit of the SS class is Ciara's "enjoyment" and "love" of music; Ciara "really likes the class . . . she knows that [on] Tuesday, she goes to music class." Ursula noted she is "very glad" to have joined the SS class, as she "really enjoyed the program and John really enjoyed it." Beth reported both she and Jay had a good time in the MP class and that she enjoyed singing more than she expected to. Beth described singing with Jay as a "punch of fun" during which Jay "giggles . . . smiles . . . is totally focused on what we're doing." Elaine noted Jeremy's siblings enjoyed their past experiences in the MP classes, so she anticipated that Jeremy would as well. Elaine indicated singing "bring[s] that element of fun" and that Jeremy will "laugh and giggle" during their musical interactions.

Farrah and Elaine indicated their interest in providing socialization experiences for their children. For example, Farrah stated "being around other children in that environment is a positive thing" for Ciara. Similarly, Elaine and Ursula reported they joined their respective music classes to create opportunities to socialize with other parents. Elaine wanted "a chance to talk to other parents more," especially since she found it difficult to do this in other louder, less interactive children's activities. Ursula indicated her friend talked her into joining the SS class. Ursula "want[ed] to know someone" in the SS class and she knew her friend would be attending. Ursula noted attending the SS class is "helping [Ursula] to get out and make sure to go for coffee with [friend and classmate] once a week" after class.

Overall, the two parents from the MP class voiced less overall focus on, or commitment to, music. Beth liked that the classes are held in a location that is conveniently close to her home. Beth and Elaine both explained they chose the MP class based primarily on convenience. Beth reported she didn't want to commit to the "longer" SS class because she was worried about not enjoying the class and/or being embarrassed about her lack of talent in singing. Beth explained "the Musical Parenting class schedule was better" suited to her needs, as she planned to return to work in the near future but was unsure of her work hours. Similarly, Elaine explained her class choice was made "solely" because of scheduling concerns. Since she recently returned to university, Elaine "couldn't commit" to a full year music class due to the uncertainty of future class scheduling. Also, Elaine reported she could attend the MP class with Jeremy, while Jeremy's brother simultaneously took a music instrument class in the same building and at the same time.

As opposed to focusing on convenience, Ursula and Farrah voiced more concern that the SS class was developed using sound musical theory, research, and methods. Farrah stated that even before she gave birth to Farrah, she read about the effect that music can have on children's "development" and their "acquiring [of] different learning skills." Farrah researched several music programs and looked for a music class with a theoretical "foundation," or "structure." She reported, "I wanted something that I could research and know the philosophy." Farrah noted she particularly enjoys the information given by instructors during class about how music benefits children, "stimulates" development and "brain growth", and relates to "healthy behaviour." Farrah also reported she sees the SS class as "the start for [Ciara] to be able to learn an instrument."

Similarly, Ursula explained that she became interested in the SS class after learning about the Suzuki method, theory, and structure. Ursula started reading about Suzuki theory online, after her friend learned about "the Suzuki method" and began "pushing the Suzuki way." While Ursula found the high level of parental participation in the SS classes "intimidating", she noted "I did it for my son." She attended the class with John because she thought the SS instructors used "a good method" and "structure," and she wanted John to benefit from "something that works." Ursula reported she chose the SS class after she "found out that [a competing music program] doesn't have as much structure to it."

Instructor Madeline echoed parents' understandings of their motivations for their respective class choices:

Even if they don't know a ton about the Suzuki method, as soon as I share with them, the parents who buy it are the parents that get it. They're the one who are in it for the long haul. Some of the Suzuki parents are music educators themselves. Suzuki parents aren't the ones who want to try all kinds of new things. The PWM parents are the ones who try out the baby dance, baby zumba, baby swimming; they don't want to commit to one thing.

In summary, parents reported a variety of motivations for joining conjoint parent-infant music classes, including enjoyment and socialization opportunities for both parents and children. Parents reported joining the MP classes because of convenience factors, while parents reported joining the SS classes because of music-related factors, including having an understanding of the impact of music on children's development, wanting to teach their children early music skills,

and wanting to join a music class based on sound theory, research, and methods. Instructors reported similar experiences of parents' motivations based on their class choice.

4.3 Theme 2: Enhanced Parenting

The second theme in participants' interviews was enhanced parenting. All mothers indicated their parenting was enhanced through their participation in their respective Prairie Music Program classes. The mothers reported their parenting improved as a result of receiving instructor-provided songs, information, instruction, and guidance regarding parenting with music. Since Beth's parents "didn't really sing" to Beth as a child and since Beth sees herself as "not really a singer," she described her gratefulness to learn songs, lullabies, and other ways of using music to parent her son. Elaine noted the class helped her by expanding her repertoire of songs and rhymes. Ursula stated, "it means a lot" that the instructors were supportive, "knowledgeable" and insightful. She appreciated them "teaching" songs, "sharing information," and "trying to help with the development of children." Farrah, Ursula, and Elaine each mentioned that they benefited from the weekly instructor-provided "quotes" and information related to "music," "parenting," and "development." etc. For example, Farrah stated she "particularly enjoyed" quotes about "some sort of parenting aspect, and how it relates to music." Reportedly, Farrah researched child development during pregnancy, and learned about the role of music early in her child's life. Farrah noted she "really enjoy[ed]" receiving "information" from instructors about how "music stimulates . . . area[s] of the brain" and how "part[s] of the brain [are] related to that function or that behaviour." She indicated the presentation of this information helped her to come up with new ways to use music in her parenting. Parents reported experiencing parenting benefits that fell into five categories: emotional regulation, behavioural regulation, structure, development, and the parent-child relationship. In addition, instructors reported they have seen parents learn new parenting strategies in these five areas by participating in the class.

4.3.1 Infant mood improvement. Farrah, Elaine and Beth reported that, by attending the music class, they learned new ways to use music as a parenting technique to better emotionally regulate their children. Elaine noted that, through the class, she learned to use singing to "distract" her son and improve his mood:

If he is in a bit of a mood or upset about something. [Music] is something that sometimes we will just have a little song or whatever. Sometimes it's more playful. That will kind

of just distract him and change his mood off into something else so that he'll forget about it. If he's mad because he couldn't have this or that, or whatever, then sometimes we'll use that to divert him.

Beth reported singing helps to improve her son's mood: "[Singing] works really well when he's crabby or overtired. Then, it's easier to get him to quiet down . . . it calms him down and he's less fussy."

In the SS and MP classes, parents sing a lullaby while cuddling their children. Farrah stated Ciara wouldn't participate in the activity when she first started attending classes. However, after Ciara "started learning and enjoying" the cuddle song in class, Farrah began using the song to help her daughter calm down at home:

When she's getting too anxious or too nervous, or we think that she's going to throw a fit, we put on slow music and she'll come and cuddle and calm down. So that was a plus to me because she's learning to manage her anger or her feelings using music as an instrument.

4.3.2 Infant behavioural management. All of the mothers described ways they have learned to use music in managing their children's behaviour. Farah reported "I can always take something out of the class and bring it home and try to do a different thing with [my daughter], but always using that same idea." For example, Farrah noted that, prior to joining the SS class, she used to try "sitting her down and trying to explain" when Ciara misbehaved. However, this approach wasn't working because Ciara would begin "crying and she's upset and nervous that we can't even explain to her what she did wrong." After Ciara began responding to the cuddling song in her SS class, Farrah decided to use this technique when her daughter misbehaved.

It's kind of like how, with bad behaviour, some parents would use a timeout. I started singing the cuddle song with her and she knows she has to come. And after the cuddle I'll explain what she did wrong and now automatically she says, "I'm sorry." So it's working.

Beth and Farrah indicated that since the class, their use of singing makes bedtime routines easier. Farrah noted her daughter, Ciara, "was not ever a child that went to bed alone . . . she always needed us to sit by her crib and say a prayer with her or sing a song." Then, near the end of the class Ciara began telling Farrah to leave Ciara's bedroom and then she sang herself to sleep. Farrah suggested she sees singing as "a tool that we've allowed [Ciara] to have and the

class is teaching her to use that her own way.” Beth’s parents reportedly “didn’t really sing”, so Beth learned lullabies in her MP class that she now uses to put her son to bed:

My parents didn’t really sing, and I didn’t really know many lullabies. But I learned them in the class. Sometimes we sing at bedtime now. Actually that works really well when he’s crabby or overtired. Then, it’s easier to get him to quiet down and go to sleep.

Elaine, Farrah, and Beth each discussed using music to manage their child’s behaviour in a vehicle. Elaine reported that, since attending the class, she “definitely [tries] to make a point of having music inside the car and singing along to that . . . partly because of boredom and fighting and that kind of thing.” Farrah noted she, too, started listening to a class CD while driving: “any time that we’re in the car, she’s listening to the CD. Actually, we started with their [the class CD] and then we added other songs to it or the same song from a different artist.” Beth reported “we listen to music in the car now [since taking the MP class]. It keeps him busy. It makes him less crabby.”

Additionally, Beth noted she uses singing to manage her son’s behaviours while she is busy with another activity:

Singing is good to distract him. If I’m doing dishes or folding laundry or something. And he’s crabby or bored and he’s trying to get my attention. I can sing to him and get really animated and then he giggles and sings and does the actions. The singing makes it so I don’t have to stop what I’m doing. He gets the attention he needs and I still get stuff done.

Ursula described the SS class as facilitative of children’s “manners,” including “sharing” and “helping” behaviours. Reportedly, Ursula and her husband have noticed their son was behaving more politely and helpfully in the last month. Ursula stated she believes the SS class “reinforces [the behaviours] that I’m trying to teach” and that she is “sure some of what he’s doing comes from the class.” However, Ursula indicated she doesn’t know “how much” of her son’s recent behavioural improvements are due to his experiences in the class. She explained she and her daycare staff have been trying to teach her son these behaviours, as well. Additionally, Ursula pointed out that, previous to her experiences in the music class, she had been using music in her parenting and in her teaching.

Madeline and Sarah reported they support parents in managing their children’s behaviours using music, both in class and at home. As Madeline explained, “moms use the class

tools at home.” For example, Madeline described a song called *This is the way we put them away* used to teach children to put toys away. Sarah suggested the positive behavioural changes observed in children lie largely in the changes that parents make. She illustrated this point using the story of a particular child who made huge behavioural changes over the duration of her class. Sarah noted the mother of this child, “says that now, when she goes out [in public] people are amazed by how much calmer and more [more] manageable he is.” Sarah pointed out:

It’s not [the child] that changed, it’s [the parent]. [The instructors] are taught that if a parent leaves the classroom with a screaming child, one of the instructors goes out with them. I don’t go out to calm the child. I go out to calm the parent. Because when the parent gets less tense, the child will stop crying and screaming.

Madeline suggested parents learn to manage their children’s behaviours more easily in the SS class due to more “consistency” and the culture of “noticing the small gains” in this class. Sarah agreed that parents “can learn so much more if [they] are committed. We see [Suzuki] parents for 3 years . . . there’s continuity there.”

4.3.3 Infant development support. In their interviews, Elaine, Farrah, Beth, and Ursula each talked about their belief that their children’s development has been facilitated through their attendance of their respective music classes. Elaine reported that, prior to the MP class, her son was “a bit slow to talking” and had attended formal speech and language assessments. She described the class as a source of “stimulation that he doesn’t [get] at home.” For example, she explained:

I knew that there’s a lot of speech in the house, but it’s not necessarily directed at him, so much as it was with the older kids. [By attending the MP class], it makes you focus and makes sure you’re directly talking to him. So I guess it makes me feel good that doing that - I’m paying attention to that and trying to be more conscious of interacting with him more.

This approach has been helpful:

He’s talking way more now, compared to – and clearly – than he was in the summertime. It’s just a world of difference. And not just that I notice it, but people we don’t see very often notice that too.

Elaine indicated that, since singing is “very repetitive,” the act of singing more with her son “helps with [his] speech development.” Moreover, she noted that, because her son enjoys

the singing, he is more likely to repeat songs at home, and therefore, invite his parents to repeat them, as well. Elaine specified that while she is “not really sure how to quantify” how much of her son’s speech development can be attributed to the effects of the MP class, she noted that “I think it definitely plays a role.” Comparably, Beth reported while she thinks that music is “probably . . . one of the factors” that supports her son’s development, she does not believe that it is possible to “know whether him growing is because of me, or his dad, or the food he eats, or the class, or whatever. But it probably helps.”

Farrah described the importance of learning from instructors about how music “stimulates” certain “area[s] of the brain.” Reportedly, she has used this information to structure her parenting by considering, “What part of the day do I want to stimulate that area?” Farrah talked about learning certain musical activities in class and using them at home to teach her daughter concepts, such as “faster or slower . . . [and] up and down.” Farrah indicated her daughter’s speech has improved dramatically since beginning the class. Additionally, raters scored Farrah as engaging her child in more language experiences, such as extending her child’s words into larger phrases or sentences, during their administration of the KIPS.

Ursula reported she understands that listening to children’s music helps children to “hear” and “learn” words more clearly, and “expand their knowledge.” She noted each child learns differently, and therefore, that the “rhythm[s],” “tune[s],” and “rhyme[s]” in children’s songs can better support certain children’s learning preferences. Ursula indicated she began using music in her teaching and parenting long before attending the SS class. Ursula noted while she believes that the class “influences” her son’s development and “reinforce[s] what I’m trying to teach,” she realizes she and her son’s other caregivers likely have more of an effect on him than a class that is “45 minutes a week.”

Instructors, Sarah and Madeline both reported they believe that participation in each of the music classes supports children’s musical development. Madeline noted the early participation exposes children to music at an age at which “babies are wired for music.” Madeline explained researchers have proposed a “window” of time in which young children are especially open and able to “respond” to, and learn from music instruction. However, when children pass through this “window” without music exposure, they are less able to develop music skill at a later age, and can even become “tone-deaf.”

4.3.4 Parent-child relationship enhancement. In their interviews, the mothers named the development of their relationship with their children as a benefit of attending the music class. All four parents reported they, as parents, and their children genuinely “enjoyed” participating in their respective music class. Moreover, Elaine and Beth each noted that, since taking the MP class, they experience more “fun” and “enjoyment” in their relationship with their children. For example, Beth indicated the class was “a way for us to spend time together in a fun way and . . . enjoy each other’s company.” Additionally, Elaine reported singing:

Can help in the fun aspect of the relationship. Because I think sometimes my husband tends to do more of the play and the physical games and that sort of thing. I don’t tend to do that as much, so I think [singing] definitely helps to bring that element of fun into it for sure.

Moreover, Beth and Elaine each reported they joined the MP class for the primary purpose of spending more quality time “together” with their children. Beth noted she wanted her relationship with her son to remain “close” and for them to continue to “spend time together” after her upcoming return to work. Elaine noticed that, due to her and her two older sons’ busy schedules, she hadn’t been spending enough “one-on-one [time] with just [her youngest son].” Elaine described participation in the class as a way to make time for “interactive” activities the she and her youngest son could do “together.” Farrah agreed “certainly [the SS class] helps. It’s a time that we’re together the two of us . . . an activity that we do together.”

Additionally, Elaine and Beth noted that since taking the class, they have become more “focused” on their children. Elaine reported participating in the class was “the chance to go and focus on Jeremy. That was the goal in going and I feel like I got that out of it.” She noted her son learned some songs after attending “a few” classes. Then, when he was “playing on his own” at home, he would begin singing. Elaine described her son’s singing as “sort of a cue to me” to “focus more on music again” and “do a few little songs together.” She noted “it does focus you back on your child again, when you’re busy doing other things.” Similarly, Beth reported that, after taking the class, she began teaching her son to sing with a play microphone: “I tell him, ‘Go get your mic. Sing for your fans.’ And he sings with me.” Beth noted that, recently, her son began retrieving the microphone on his own, which cued Beth to engage him in song: “Sometimes he gets the mic on his own. And then that reminds me. And we sing.”

It should be noted that similar themes were noted in raters' observations during administration of the KIPS. Raters described parent behaviours signifying increased parental involvement in children's activities, including Elaine using an "animated voice [and] facial expressions" more often and acting "more playful" and Farrah being more full of "energy." Additionally, raters observed Farrah and Beth as using more positive feedback and encouragement with their children in their second meeting, than in their first. For example, raters noted that Beth used more sincere words, voice tones, and actions when giving her child positive feedback on tasks.

Instructors Sarah and Madeline both reported participation in the music classes supports parents and children to improve their relationships. For example, Sarah reported:

[In the music classes], parents and children build a special bond . . . The parents in the class work on that bond: walking with their child, hugging their child, doing actions with their child. That's a really special relationship that develops. Not that it isn't already there, but you build on it.

Madeline noted she understands the biggest benefit to parents from participating in the music classes to be the improvement of the parent-child relationship:

The attachment part of it and the [parents] connecting with their babies is for me the most exciting part . . . it's amazing to see the walls start to come down and the connections forming.

Madeline described the music classes as a place for parents and children to renew their delight in each other:

It's almost always joyful in class. Last week, a mom told me she was having a crappy week, with a crabby kid. But that instantly changed when she walked through the door [of the classroom]. They were both happy to be here, experiencing joy together, and having fun.

Madeline also noted participation in the class has been especially beneficial for mothers with post-partum depression.

I had a mom in one of my classes who was suffering from post-partum depression – I'm sure I've had a lot of moms that just haven't told me. But this mom told me, "I'm so thankful for this class. Now I'm able to bond with her. I know what to do. Before the class, I didn't know any of these songs." Moms with postpartum don't feel bonded.

They don't feel that joy with their child. The class gives them tools to bond: games, tickling, touching, blowing. It's re-teaching them.

Additionally, Madeline reported she thinks parents in the SS class are more likely than parents in the MP class to experience greater benefits to their relationship with their child. Madeline explained that since SS parents and their children tend to enroll earlier, take classes year-round and for multiple years, they get to know their classmates and the music much better than those in the MP classes. Instead, SS parents develop a comfort level with their classmates and the music, and "they don't have to look at [the instructors]. They're looking at their child and engaging with their child." In this way, parents' participation in the SS class becomes "second nature," and "Suzuki parents become keen observers." Madeline explained SS parents are better able to focus on their children's growth and enjoy their in-the-moment experiences:

[Parents in the SS class] are in tune with their children. It's important because they're more able to engage in a different way, pay more attention, be really involved in the moment . . . And that's huge in terms of attachment, because parents are able to engage in a different way.

In summary, all four mothers reported they considered their participation in their respective classes to improve their parenting. Interestingly, all the mothers indicated their parenting was enhanced, regardless of the type of class in which they engaged. Mothers and instructors discussed multiple benefits of class participation on their parenting, including learning to use and/or reinforcing the use of music to regulate children's emotions/behaviours, to provide structure, to enhance development, and to improve the parent-child relationship. Additionally, the mothers who participated in the SS classes discussed how the Suzuki methods emphasizing repetition and routine have especially supported their children's musical learning. Moreover, one of the SS mothers observed the Suzuki tradition of using repetition and routine has structured her and her child's use of music at home, enhanced their weekly routines, and increased their comfort level, both generally and in the SS class. Instructors went one step further to suggest that they observed parents and children in the SS classes to experience added benefits due to specific Suzuki methods. One might have expected instructors to suggest that focusing on music skill development leads primarily to improved music skills, while focusing on parenting skills and behavioural coaching leads primarily to improved parenting skill and children's behaviour. However, instructors maintained that this was not the case. Instead,

instructors observed the repetition and routines in SS classes leading to faster and easier development of children's and parents' musical skill, quicker acceptance of limits by children, faster development of parenting, a refocusing of parents and children onto each other, and a quicker and easier development of the parent-child relationship.

4.4 Theme 3: Mothers' Enhanced View of Self

All four mothers reported they felt good about taking their children to their respective music classes and described one or more ways in which their view of themselves as parents was enhanced by attending the class. For example, Elaine and Beth reported decreased feelings of guilt regarding their parenting. Farrah, Beth, and Ursula talked about finding parenting easier, after taking the class, while instructors also reflected on themes of success. Ursula noted a normalizing effect of seeing other parents struggle with parenting too. Before joining the class, Beth and Ursula both were embarrassed about their lack of musical skill. However, they reported letting that go and experiencing increased confidence in their ability to participate in the class, as the class progressed. Instructors noted similar themes in their interviews.

4.4.1 Decreased guilt. Elaine and Beth talked specifically about a reduction in "guilt" about their parenting. Elaine reported that, prior to taking the class, she had been very "busy with the [two] older kids" and had little individual time with her youngest child. Elaine stated, "You always feel guilty when you don't have the time when your house is busy." Elaine indicated feeling less guilty after attending the class and extending the use of musical activities into her home:

It makes me feel good . . . that I'm paying attention to that and trying to be more conscious of interacting with him more . . . because, before the class, we weren't really doing that as much. [After participating in the class], I feel like I'm a better mother because I've got that focus on him."

Beth reported feeling "the standard mom-guilt" about her upcoming return to work. She noted that she feels less guilty since taking the class:

I feel good that we're having fun. And we're spending that time together. And I can give him more attention when I'm doing other tasks. So if I think about it, that makes me feel good. About the job I'm doing.

4.4.2 Normalization of struggle. Ursula noted that seeing her son “in [a] different situation” helped her to feel “more comfort” in her role as a mother. Also, she talked about the normalizing effect of seeing other parents struggle in managing their children’s behaviours:

We had one kid in our class one time that didn’t want to behave. He wanted to run or do his own thing and [my son] was at a rebellious stage at the same time. They were both kind of doing the same thing. The parents of the other child were kind of frustrated . . . and I said, “I can relate to that.’ It’s nice to see that yours isn’t the only child that isn’t behaving as you’d hoped.

While she was initially scared to join, Ursula reported she has since realized that “everybody else sounds like I do or doesn’t care [so] it’s ok.” Also, Ursula noted she stopped feeling “embarrassed” about singing in front of the instructors because “they don’t really care” about parents’ singing skills or lack thereof. Similarly, Beth reported that, prior to taking the class, she anticipated that she would feel badly about her lack of musical skill: “I’m not a singer and I figured I might get embarrassed, but actually that ended up ok . . . it’s just for fun, so that’s ok.”

Instructor Sarah noted she sees parents encouraging each other and normalizing each other’s experiences in class. She gave the example of one mother, in particular, who tells other struggling parents, “That’s like my child when we started. But stick with it and it will turn around.” Similarly, instructor Madeline described her own acceptance of parents’ imperfections: “If you don’t get the tune exactly right, who cares.” Madeline described herself as teaching parents to “feel successful” despite any lags in development:

I will tell [parents] right away: if your child doesn’t respond in the way that you think they should, it does not mean [music] is not helping. We can’t always see what’s going on inside our children, but that doesn’t mean it’s not important and powerful, because it is.

4.4.3 Increased focus on success. Ursula reported that, prior to joining the SS class, she was “intimidated” and “scared . . . half to death” of the “Suzuki method” because she saw herself as “not very musical at all,” “not good at any of those extra-curricular [activities],” “very uncoordinated,” and “unrhythmical.” Although she initially expected that she “wouldn’t be able to do what was expected” of her in class, Ursula realized that “I can sing and march around in a circle.” And while she “wasn’t going to do it the second year, if it was really tough,” Ursula

ended up attending two back-to-back SS classes and plans to take a third. Now, she knows “I don’t really have to worry about ‘oh my god, what are they going to throw at me next week?’ It’s a comfort level for me now. I know the routine. I know that I can make it through the little bits that I have to sing for [my son].”

Instructor Sarah described her enjoyment and joy in noticing children’s growth. She described “one parent in particular” who “held [her baby] so rigidly” in the beginning of the class, but “relaxed a lot that year . . . in her body and face.” Sarah talked about how SS teaching strategies help parents and children to focus on small successes. She explained “Suzuki philosophy” helps both parents and children learn that they “can accomplish any task” by “break[ing]” it into smaller pieces and complet[ing] them little by little until eventually you have a complete task done.” Sarah described the SS class instructors as using this process to teach parents and children songs by “teaching the words, the melodies, the actions, and more verses, in manageable pieces.”

Madeline noted she tries to foster parents’ focus on success by “ask[ing] them to comment on” their and each other’s children’s improvements. Madeline described teaching parents to notice and value small changes in their children, in order to feel better about the job they are doing as parents, stating, “Things seem small, but, really, they’re huge. We make a point of noticing the small gains. Parents notice that and start to feel good. Those small things are the stepping stones.”

Madeline also indicated parents in the SS class are especially able to “create a sort of culture of noticing each other’s improvements” since they tend to take more classes and get to know each other better. Madeline reported she especially sees parents worrying less about participating in the right way after participating in the SS class:

[Parents in the SS class] are more able to engage in a different way, pay more attention, be really involved in the moment instead of worry about ‘Am I doing it right? I have to pay attention more closely to the teacher.’

In summary, all four mothers reported they felt “good” about taking their children to their respective music classes and, regardless of the type of class in which they participated, all mothers described one or more ways in which they learned to feel better about themselves as parents. Similarly, both instructors reported they have observed parents’ self-efficacy to improve as a result of participation in either music class. Some parents felt less guilty about their

parenting, while other parents and instructors talked about a normalizing of their parenting experiences. One parent and both instructors discussed parents' increased focus on success as classes progress.

4.5 Theme 4: Predictors of Change

Reports from parents and instructors identified two factors increasing the perceived benefits experienced and reported by parents: (1) repetition, routine and structure, and (2) the development of supportive relationships with classmates and instructors.

4.5.1 Repetition, routine, and structure. Parents Ursula and Farrah and instructors Madeline and Sarah talked about a number of ways in which the repetition, routines, and structure provided in the SS classes benefited both parents and their children in a number of ways. Ursula indicated the routine ordering and “repetition” of songs in weekly SS classes allowed her and her son to better remember, and, thereby, more consistently practice songs and actions at home. Ursula explained:

The kids actually start to remember because the routine takes place all the time. Joel can tell you what song he did at class. It's not because he did it once. It's because he's done it a number of times.

Farrah also reported the repetition used in the SS class particularly helps Ciara learn: She's really comfortable with doing activities in which you repeat. She learns really fast and she's really interested in that. Like if you have a toy that she can touch a button and it will sing a song, she learns that. Like she will repeat it a thousand times. So I just thought, “well, she's really comfortable doing that at home, so I think she's going to enjoy the class.” And actually that's what's happening.

Additionally, Ursula stressed her appreciation that the SS instructors' use of “structure,” “routine,” and “repetition” helps her to structure her own parenting and better meet her child's needs. For example, Ursula indicated she believes that children find comfort in routine and described too much change as “hard on kids.” She noted the importance of “try[ing] to give your child structure and continuity. Suzuki Singing is continuity for them.”

Ursula reported she and her son have benefited from using music to develop routines, inside and outside the SS class. That is, attending the SS class “[keeps] your day busy. It [keeps] your week going.” Moreover, she pointed out the weekly routine of attending the class is “helping me to get out and make sure I go out for coffee with [my friend] once a week as well as

going to the Suzuki Singing Class.” Furthermore, Ursula, reported that as the class progressed, she was able to overcome her musical insecurities by finding comfort in the class structure and routines:

I enjoy the structure. I enjoy knowing that [the SS class] is something I can rely on. . . I don’t really have to worry about ‘oh my god, what are they going to throw at me next week?’ It’s a comfort level for me now. I know the routine.

Instructors, Sarah and Madeline, echoed Ursula and Farrah’s understanding of the benefits of repetition, routines, and structure, especially within in the SS classes. Sarah and Madeline noted the “layering,” “repetition,” and “routines” emphasized in the SS classes help children to learn songs and actions faster. Madeline explained, “With Suzuki, kids learn quicker . . . [and] pick up the songs much faster, because the repertoire is less than half with much more repetition. And if they don’t learn the songs, they won’t sing them and they won’t have as much fun.” Sarah noted, “I use repetition more in the MP than I would have before, because I know the children learn better,” however, she confirmed “in the Suzuki classes, we see children singing and doing actions quicker because of the [greater use of] repetition.

Madeline reported, in addition to encountering more repetition in SS classes, parents often enroll in repeated sets of SS classes, more so than parents do in MP classes:

Most kids start young and continue until 3 years old. Suzuki classes are 24 weeks and families can take summer classes so most of these people are getting all-year lessons for three years.

Madeline also reported that the longer parents and children attend classes, the more they learn:

Some of these kids - we laugh - they could teach the class, they know it so well. Some kids who don’t even walk are able to sing, match pitch, keep the beat, do a rhythm (steady beat that words are timed to), find the rhythm in their feet and in their step. Some parents can’t do it, but their children can. Because with the early exposure, music becomes internalized, intrinsic.

Sarah noted she sees parents in the SS classes as being more committed:

The parents who’ve been in the Suzuki classes longer will probably be better Suzuki parents, later on, for instrument classes . . . I think it’s because they really keep the Suzuki philosophy in their heart. Each week, we [the instructors] share parenting quotes,

a 2-minute blurb on music and parenting. Some people understand. They say ‘yes, I know’ but you can tell it doesn’t stick with them. But if you really believe it, it moves from your head to your heart; you really buy into it. It makes you more committed.

Sarah also noted that the longer parents attend classes and the more committed they are, the more they learn: “You can learn so much more if you’re committed. We see parents for 3 years. We see them for a long time and there’s continuity there.”

The instructors talked about parents learning to use routines and structure in their classes. Sarah pointed out some parents initially worry about their children’s ability to accept and learn from class rules and expectations. However, Sarah noted instructors “teach the parents to go get their child” when they are “running around” instead of participating in the class. Similarly, Madeline stated instructors “value structure and expectations” in their classes:

Your child’s not running around amuck. They’re with you, singing and doing the actions. You hold them when necessary. You take turns . . . They’re the small rules about how you’re going to do things . . . We lay out the rules and we will speak to them. Then parents take those rules home and use them.

4.5.2 Supportive relationships. Parent and instructor interviews indicated parents get more out of the classes when they take more classes and develop more comfort with classmates and routines. One of the SS parents reported overcoming her poor general and musical self-efficacy through developing relationships with her SS classmates and instructors, through developing trust that these people wouldn’t judge her or her lack of musical skill, and through finding comfort in the class’s structure and routine. On the other hand, the two MP mothers reported they didn’t get to know their MP classmates as much as they would have liked, even though they see relationship with classmates as beneficial.

The two parent participants in the MP class commented on experiencing less connection with their classmates than they would have liked. For example, Elaine noted:

I picked music because mostly it’s a chance to talk to other parents more . . . I would have liked, within the class, a bit more opportunity to talk to the other parents. Like we never really introduced names of the mothers at all, so like I ran into another woman the other day at the grocery store. We had a conversation but I have no idea - we don’t know each other’s names at all.

Beth reported:

If we take the class again, I might make more of an effort to get to know the other parents. Usually I make at least one new friend in the classes we go to. We exchange phone numbers and go for coffee and all that. But I didn't really do that this time. Maybe it would have been nice we had a little more time to talk to the other parents. To build more friendships.

Both Elaine and Beth explained potential benefits of getting to know other parents in class. For example, Beth reported:

It's nice to have other parents with kids that are the same age as yours. You can swap ideas and get the down-low on preschools and that kinds of thing. Or get advice or just vent or whatever . . . If you're happy, you're going to be a better happier parent.

Elaine indicated getting to know other parents in the class:

helps develop friendships and stuff like that too . . . I suppose if you made friends through the class or if you attended several classes with the same people over time, then if you developed friendships, I think that can impact parenting too. . . I suppose with parenting, friendships with other people can help you as a parent . . . [by providing] reassurance with your own child, talking about different child problems, things like that.

In contrast to the MP mother's experiences with lack of connection to classmates, one of the SS mothers talked about getting past her poor musical self-efficacy by taking a second set of classes with the same instructors with whom she built a trusting relationship. Ursula noted she stopped feeling "embarrassed" about singing in front of the instructors because "they don't really care" about parents' singing skills or lack thereof. Instead, Ursula has realized that the instructors are "there for the kids." Also, she reflected on the importance of becoming more comfortable with her classmates:

The more you know a person, the more comfortable you get [and] the more comfortable you are singing or doing something you wouldn't necessarily do. When it's a bunch of strangers the first couple of times, it's really intimidating. You don't know who is judging you. For me, because of my [negative childhood] experiences, I didn't know who was judging me or what people think. But as you start to talk to people . . . [and] get to know who they are or get to know their child a little bit better, you have a little more common ground . . . a little more comfort level.

Although she initially “expected” she “wouldn’t be able to do what was expected” of her in class and she “wasn’t going to do it the second year, if it was really tough,” Ursula ended up attending two back-to-back SS classes and reported she plans to take a third.

Instructor Madeline reported she sees parents in the SS class showing more improvements over time than parents in the MP class because they attend more classes and develop a sense of comfort:

I see more happening in the Suzuki classes. I think that’s because people are here longer, most people are here for longer. It’s a different feeling, a different level of comfort.

Parents and their children join in with us in everything we do.

Instructor Sarah reported that length of time in program supports the closeness of parents in both classes:

If the parents stay all three years, we become closer because we’ve been together a long time. If I happen to teach consecutive Musical Parenting classes with some of the same parents, we can spend the same amount of time together.

In summary, reports from the parent and instructor interviews support the preliminary finding that parents get more out of the classes when they take more classes and develop more comfort with classmates, routines, and materials. For example, Ursula indicated that through attending the SS classes and watching other parents struggle alongside her, she was relieved to find that her child “isn’t the only child that isn’t behaving.” In addition, Ursula reported overcoming her poor general and musical self-efficacy through developing relationships with her SS classmates and instructors, through developing trust that these people wouldn’t judge her or her lack of musical skill, and through finding comfort in the class’s structure and routine. On the other hand, the two MP mothers reported that while they see relationship with classmates as beneficial, they didn’t get to develop relationships with their MP classmates as much as they would have liked. Instructor Madeline noted that often parents in the SS classes often take more back-to-back classes and enrol earlier in their child’s life. She reported that, as a result, SS parents often develop more comfort with class routines and each other and they and their children make more changes and learn more. Instructor Sarah agreed that length of time in program supports parents and children to get more out of the classes.

Chapter 5: Discussion

This basic interpretive qualitative study was conducted to explore Canadian parents' experiences, and motivations for, participating in singing classes with their infants using a resiliency framework in order to help both parents and professionals working in the community to better understand and support healthy parenting behaviours and infant development. This chapter reviews and summarizes the four main themes from the present study within the context of the greater research literature. Moreover, preliminary findings are considered, including possible class characteristics that may especially enhance parental sensitivity and self-efficacy, such as length of class participation, resulting parental comfort level and song familiarity, and developing supportive relationships with instructors and classmates. Implications for parents and professionals in the community, the strengths and limitations of the current study, and areas for future research are outlined.

5.1 Theme 1: Mothers' Motivations

In past studies, researchers have not yet explored parents' motivations for joining different types of parent-infant music classes. In this way, the present study allowed mothers' voices to be heard about a new theme. The mothers reported many reasons for joining a parent-infant music class, including enjoyment of music, variety in activities, avoidance of boredom, and provision of socialization opportunities for both mothers and their children. When it came to deciding which class to take, parents reportedly considered multiple variables. A few of the mothers and/or their infants had previously enjoyed similar music classes. Two of the mothers took their friend's recommendation and one mom felt more comfortable joining a class in which her friend was enrolled.

Generally, parents enrolled in the MP classes primarily reported motivations related to convenience, while parents in the SS classes reported motivations related to music. Similarly, instructors noticed that parents in past SS classes tended to have more musical experience, be more interested in providing their child with music exposure and instrument preparation, and be more committed to the Suzuki theory. While the SS mothers didn't have any early music experience, they both talked about the importance of music for infant and child development. One SS mother was a teacher who enjoyed incorporating music into her teaching and home life. The other SS mother had a husband who played multiple instruments. Both mothers had researched Suzuki theory prior to taking the class. Both reported wanting to take a music class

taught by well-trained knowledgeable instructors and based on solid musical theory, research, and methods.

Overall, mothers' motivations for class choice, as reported by mothers and instructors, matched the advertised purpose of each class. That is, mothers in the SS class reported more music-related motivations. Similarly, the pamphlet and website advertise the SS class as providing infants with first exposure to the Suzuki method and preparing infants to play an instrument. Conversely, mothers in the MP class reported less music-related motivations, and instructors described these mothers as being more interested in fun, novelty, and infant stimulation. The pamphlet and website advertise the MP class in a more general way and touch on various benefits of the class, including facilitation of the parent-infant connection, enhancement of parent-infant communication, and improvement in infant development.

5.2 Theme 2: Enhanced Parenting

Parents in this study reported that they experienced benefits, such as enhanced parenting skill that allowed support of the parent-child relationship and of children's emotional regulation, behavioural regulation, and development. Instructors reported similar themes. These benefits of parents have previously been identified as contributors to children's resiliency (Luthar et al., 2000; Maston, 2001). That is, adaptive developmental processes, such as caregiver-child relationship, children's brain development, and the children's emotional and behavioural regulation, have been shown to enhance resiliency (Cicchetti & Garmezy, 1993; Luthar et al., 2000; Maston, 2001; Masten & Coatsworth, 1998).

Moreover, many of these parenting themes have also been reported in other studies. For example, in an investigation of the effects of parent-infant singing intervention on well families, parents reported that participation in a singing class helped them to sing, laugh, dance, and interact more with their children at home (Mackenzie & Hamlet, 2005). These well parents indicated that their parenting was supported by learning music activities to calm their distressed children, make travel time more enjoyable, and incorporate into bedtime routines. Similarly, in the present study, mothers reported many of these very same themes of improved parenting through the use of music. That is, mothers in the present study indicated that participating in their music class enhanced their use of musical parenting strategies to support their children's emotional and behavioural regulation. In fact, mothers talked specifically about using music during car rides and at bed-time, just as parents reported in the study by Mackenzie and Hamlet

(2005). Furthermore, mothers in the present study stated that participation in a parent-infant singing class helped them to engage more with their children at home, and improve the quality of their relationship with their child, as similarly noted by Mackenzie and Hamlet.

Three of the mothers reported that, through participation in their music class, they learned to use music to regulate their infants' behaviours and emotions more effectively. By learning to use music to distract, calm, and focus their infants, mothers were able to meet their infants' needs. Two of the mothers even reported that these musical strategies worked better than the parenting used previously at bedtime or during misbehaviour. In fact, one parent reported that using 'the cuddle song' allowed her infant to calm down in moments of upset, as well as, to better accept parental limit-setting in the home. Similarly, Bowlby's (1982) definition of attachment revolves around this theme: meeting an infant's needs, as sensitively and consistently as possible. KIPS items used to operationalize this description of sensitive parental responses to infant need, include helping the child problem solve to regulate emotions; helping the child regulate attention; setting appropriate, consistent, and helpful limits; and consistently and appropriately trying to meet the child's needs. Thus, according to Bowlby's theory (1982), and the operationalization of parental sensitivity in the KIPS, some of the mothers in this study experienced their classes as facilitating their ability to parent their infants sensitively.

Research suggests that sensitive parent responses help children create mental models of attachment (Bowlby, 1982; Bretherton & Munholland, 2008; Dykas & Cassidy, 2011), and learn to regulate their own emotions (Gerhardt, 2004; Schore, 2001; Seigle, 2001). Levitin (2008) posited that children learn to self-comfort by singing lullabies to themselves that their mothers sang to them stating, "Singing can sooth and comfort infants in ways that other actions cannot, and this is in part because of how different auditory stimulation is from other senses" (p. 126). Indeed, one of the mothers reported that after months of attending classes and singing her infant to sleep, her child began singing herself to sleep. This mother reported that she sees singing as "one more instrument . . . a tool that we've allowed her to have and the class is teaching her to use it in her own way."

Bowlby (1982) also maintained that effective attachment behaviours are warm and affectionate, thus enhancing the mother-infant emotional bond. Similarly, parental sensitivity is operationalized in the KIPS as meeting the child's needs for physical interaction and sharing the child's emotions. In addition, parents and infants in the classes participate in musical activities

that support both physical and verbal affection, including cuddling, saying ‘I love you,’ tickling, and laughing. One of the mothers even reported that through participation in the music class, her daughter learned to participate in, and enjoy, cuddling both inside and outside of class. These findings fit with research linking singing, music listening, and intimate touch to the production of oxytocin, a bonding hormone, in the brain. For example, recent studies have found oxytocin to be associated with joyful singing (Chandra & Levitin, 2013; Grape et al., 2003; Levitin, 2008), music listening (Nilsson, 2009) and physical intimacy, such as eye contact, hugs, and other forms of touch (Holt-Lunstad, Birmingham, & Light, 2008). Furthermore, research has shown both music (Chandra & Levitin, 2013) and touch (Field, Hernandex-Reif, Diego, Schanberg, & Kuhn, 2005; Holt-Lunstad et al., 2008) to predict production of dopamine, the *feel good* hormone, and the reduced production of stress hormones.

All the parents reported that both they and their infants enjoyed participating in the music class. They described singing with their infants as “fun” and “joyful.” One of the instructors even described a mother in her class as reporting that she “always felt happier after leaving the class.” Additionally, music has been found to modulate dopamine, the “feel good” hormone, production in the brain (Levitin, 2008). Thus, by enjoying singing together, parents and infants’ brains may be producing more dopamine, thereby enhancing their joyful experience of music-making. Levitin (2008) went even further suggesting joyful musical interaction is self-reinforcing because it evolved in our ancestors as an evolutionarily-advantageous act:

We have joy songs because moving around, dancing, exercising our bodies and minds is something that was adaptive in evolutionary history. Stretching, jumping, and using sound to communicate felt good because our brains – through natural selection – developed rewards for those behaviours. (p. 109)

Just as Bowlby (1982) described successful attachment relationships as involving mutual enjoyment, engagement, and mutually reinforcing interaction, the KIPS includes items regarding showing interest in, paying attention to, participating in activities with, and using sincere encouragement of, a child. Mothers in the present study reported that participating in the music class was a way to increase the amount of quality time spent with their infant. All the mothers reported that joining the class was enjoyable for both themselves and their children. Two of the mothers even talked about their infants’ engagement in song as a “cue” to interact and sing with

their infants. Additionally, both of these mothers reported that they became more focused on their infants since taking the class.

In past quantitative studies, parent-infant singing interventions have been shown to be associated with statistically significant improved parenting behaviours (Lyons, 2000; Oldfield et al., 2003), improved parent-child engagement (Lyons, 2000); and decreased child behaviour problems (Nicholson et al., 2008). For example, in a study of a group music therapy program, high-risk parents reported that the frequency of play with their 0- to 5-year-old children increased significantly, between pre and post intervention measurements (Nicholson et al., 2008). Also, the quality of parental behaviour (sensitivity, engagement, and positive affect) and of child behaviour (responsiveness, interest, participation) increased significantly between measurements.

In the present study, mothers reported their children's musical and speech development was enhanced by their participation in the music class and by extension of singing activities into the home. Whether as a direct result of their musical experiences, or as mediated by parental sensitivity, this finding is not surprising, considering that research has established that infants have sophisticated musical abilities (Hannon & Johnson, 2005; Ilari & Polka, 2006; Trehub, 2006) and plastic malleable brains during early development (Schore, 2002; Schore & Schore, 2008). Also, singing and speaking have been found to activate common neural networks (Schon et al., 2010) and singing is commonly used to support speech and language development (Harris, 2003; Pound & Harrison, 2003). Moreover, both parental sensitivity and infants' active music participation are thought to enhance development. That is, researchers have shown that sensitive parental response to infant need protects infants' social, emotional, and cognitive development from risk (Candelaria et al., 2003). Also, active music participation has been shown to enhance social, communication, and music development in both infants (Gerry, Faux, & Trainor, 2010; Gerry, Unrau & Trainor, 2012) and children (Moreno et al., 2009; Schellenberg, 2004).

5.3 Theme 3: Mothers' Enhanced View of Self

All mothers reported that they felt "good" about participating in their respective music classes with their infants. Also, each mother and instructor reported one or more ways that parents' view of themselves as mothers improve as a result of participation in a class. These reports support the findings presented by Nicholson et al. (2008), who found that participation in a parent-infant music class resulted in mothers reporting increased parental self-efficacy.

More specifically, the present research explored how mothers' views of themselves improved throughout participation in the class. Two mothers noted that they felt less "guilty" about returning to work, now that they were spending more quality time together through singing. One of the parents talked about feeling better about the job she is doing as a mother, after seeing other parents struggle managing their children in class. Instructors also reported noticing parents normalize their experiences during classes. Moreover, instructors and parents both indicated that parents increasingly focus on their successes over the course of the classes.

In addition, instructors noticed the relationship between parental self-efficacy and parenting, in that parents who weren't worrying about participating correctly in class were more able to attend to their infants and focus on that engagement. This reporting is not surprising given that past research has provided supporting the relationship between effective parenting and parental self-efficacy (Coleman & Karraker, 1997; Jones & Prinz, 2005; Stams et al., 2002).

5.4 Theme 4: Predictors of Change

To the knowledge of this student researcher, the present study is the first to write about how specific variables in parent-infant music classes affect the amount of change parents experience. Reports from the parent and instructor interviews bring into question the possibility that parents get more out of the classes when they take repeated classes in which they can benefit from repetition, routine and structure and develop more comfort with classmates, routines, and materials. For example, Ursula reported overcoming her poor general and musical self-efficacy through developing relationships with her SS classmates and instructors, through developing trust that these people wouldn't judge her or her lack of musical skill, and through finding comfort in the class's structure and routine. On the other hand, the two MP mothers reported that while they see relationship with classmates as beneficial, they were not able to develop relationships with their MP classmates as much as they would have liked. Instructor Madeline noted that often parents in the SS classes often take more back-to-back classes and enrol earlier in their child's life. She reported that, as a result, SS parents often develop more comfort with class routines and each other and they and their children make more changes and learn more. Instructor Sarah agreed that length of time in program supports parents and children to get more out of the classes. More research is needed to explore length of intervention, parents' experiences of comfort in their music classes, and the possible effect of comfort on parents' perceived benefits.

In some ways, parents' experiences are almost paradoxical. A reasonable assumption would be that parents who are more interested in musical objectives would be more likely to experience more music-related benefits. However, all the parents in the present study reported non-music-related benefits to their parenting and their view of themselves as parents. Furthermore, instructors reported observing increases in parental sensitivity and self-efficacy in parents of both classes. Similarly, parents in previous music class intervention studies have seen improvements in parental sensitivity and self-efficacy (Mackenzie & Hamlett, 2005; Nicholson et al., 2008; Williams, Berthelson, Nicholson, Walker, & Abad, 2012).

Interestingly, the instructors in the present study reported a similar effect of focusing on the musical aspects in their SS classes. Instructors noted that when considering parents participating in both classes, SS parents tend to enroll in classes when their infants are younger, continue to enroll in successive classes, and develop more comfort with classmates, songs, and class routines. Instructors suggested that, as SS parents become comfortable, they are freer to focus on other factors, such as enjoyment, the present moment, and their infant. According to instructors, increased knowledge and comfort frees up SS parents to engage with their infants more directly and allows SS parents to be less worried about whether they are singing in the right way, or performing the right actions. Moreover, SS parents reportedly respond better to instructor's coaching, and to notice their own and their children's improvements and small gains. One of the instructors, in particular, suggested that SS parents tend to see more improvements in both their parental sensitivity and self-efficacy, as a result of this different focus.

In summary, instructors' and parents' reports provide initial support that increased SS parents' musical focus and commitment may lead to more long-term participation, and in turn to more comfort with music and classmates and openness to parental self-efficacy coaching. This speculation brings into question the roles of: a) social support, and b) musical commitment, skill, and/or familiarity in improving parenting and parental self-efficacy through parent-infant singing intervention. To the knowledge of this student researcher, no studies have yet investigated these variables as mediators of treatment outcome in parent-infant singing intervention research. Instructors in the present study suggested that by establishing a greater comfort level with both music and classmates, parents in the SS classes are better able to benefit from the social support of classmates and instructors. One of the instructors described the increased social support within the SS cohorts as facilitative of a sort of class culture of "noticing each other's

improvements.” Studies of parent-infant singing classes have not yet investigated the role that social support plays in the development of attachment, parental sensitivity, and parental self-efficacy. However, one qualitative study of a singing intervention has shown improved social support in “well” parents who attended singing classes with their infants (Mackenzie & Hamlett, 2005). In this study, 82% of parents reported that they made friends with other program participants, received support and experienced reduced isolation through program attendance (Mackenzie & Hamlett, 2005).

Interestingly, the SS mother, who talked about overcoming poor general/musical self-efficacy noted that she knew most of the children’s songs taught in the SS class before she joined the class. This reporting is not surprising, given that instructors and parents both described how repetition and commitment to music supports children’s and parent’s learning and comfort in the class. Also, these reports further provoke the question of whether commitment to music and familiarity with songs frees parents so that they can focus on other aspects of self-efficacy, including parental self-efficacy. Williams et al. (2012) suggested that families who attended more sessions of *Sing & Grow* program achieved better outcomes. This finding lends some support to the possible role played by music commitment and/or familiarity in the development of parental self-efficacy. While some singing programs have included parents who have participated in multiple sessions of the program, researchers have not compared parents participating for the first time to parents repeating the program. Also, no parent-child singing interventions studies have yet considered the mediating role of class length or musical commitment, skill, and/or familiarity with the development of parental self-efficacy. Most previous studies of parental sensitivity, self-efficacy, and social support have involved 8 to 12 week parent-infant singing programs (Mackenzie & Hamlett, 2005; Nicholson et al., 2008). Moreover, findings from the attachment intervention literature (Bakermans-Kranenburg et al., 2003) and from the more general psychological intervention literature (Duncan et al., 2009; Ilardi & Craighead, 1994) suggests that most therapeutic change can happen in a short number of sessions. However, researchers have also suggested that more treatment yields more change (Egeland et al., 2000; Williams et al., 2012). Certainly, a longer treatment model seems to better support parents’ and instructors’ reports in the present study, which indicated that increased music familiarity and/or commitment leads to increased general and parental self-efficacy. Researchers could address these questions in future studies.

5.5 Limitations

The present study had several limitations. Even though qualitative research generally involves small samples (Given, 2008; Merriam, 2002), the number of participants in the present study was particularly small. As a result, there is less confidence that the themes captured are credible and dependable. In future studies, researchers should anticipate low response rate to recruitment procedures and consider sampling in repeated class semesters and in alternative music programs.

It is unfortunate that waitlisted parents did not choose to participate in the present study. Not having a control group of parents stopped the student researcher from actively investigating whether waitlisted parents also experience natural increases in self-efficacy. It is also possible that waitlisted parents would equate any increases in parental self-efficacy to the natural development of parental self-efficacy over the first few years of life. The parents in the present study had children between the ages of 1 and 2 years. Past research has suggested that while parents experience fluctuations in their parental self-efficacy at certain points (Mercer, 1985, 1986), their belief in their ability to parent generally improves throughout children's first years of life (Elek et al., 2003; Porter & Hsu, 2003; Rothbart, 1989).

This research study focused on mothers' experiences in parent-infant music classes. This was primarily because only females volunteered to participate. It is possible that fathers may have different motivations for attending parent-infant singing classes. Additionally, fathers may experience different benefits from participating in music classes with their infants. Thus, the preliminary findings in this study do not offer information about fathers' experiences in parent-infant music classes and fathers' perceived motivations and benefits.

5.6 Implications for Future Research

Results from studies of music therapy as a medium for supporting early parenting and parental self-efficacy are encouraging (Nicholson et al., 2008; Mackenzie & Hamlett, 2005). However, there are a limited number of quality studies of parent-infant group music classes and especially in well parents (Nicholson et al., 2008; Mackenzie & Hamlett, 2005). More research of rigorous design is needed to establish support for effects of group singing classes on attachment, parental sensitivity and self-efficacy, social support, and child development. Since few past studies have included randomization, control groups, established outcome measures with strong reliability and validity, and large samples, researchers should carefully consider these

factors in future quantitative studies. Additionally, many previous studies have combined music therapy with other types of interventions, such as individual counselling or therapy groups for mothers alone. In order to more strongly determine the impact of parent-infant music classes, more rigorous research is needed.

The present study calls into question whether motivations, needs, and experiences may be different for parents with differing musical experience and/or comfort level. Certainly, in the present study, parents in the SS classes reported different motivations for joining the class, than those reported by parents in the MP class. Moreover, instructors reported that they observed the biggest benefits in parental sensitivity and self-efficacy for parents who continued to enrol in repeated classes. Reportedly, by increasing familiarity with the songs, parents and infants were freer to focus on each other. The present study was designed as a preliminary investigation. Future studies are needed to explore additional parent experiences and investigate the questions asked in the current study. Specific questions could be addressed in future research, regarding predictors of improvement, such as the number of sessions per program, the number of programs taken, whether parents have participated in similar programs and/or with other children, and parents' musical experience and/or comfort-level. Most published studies have investigated short-term parent-infant music classes. For example, the Australian parent-infant music class, *Sing & Grow*, was designed to include 10 sessions per program (Nicholson et al., 2008). Most studied parent-infant music programs have not taken into account whether parents have taken the music program more than once, or attended a different program in the past. To the knowledge of this author, Mackenzie and Hamlett (2005) published the only study of an ongoing early-intervention music program, by surveying parents who attended with their young children for an average of 3.3 school terms. Incidentally, these researchers also studied parents' reports that attending the music program helped them to establish social support and reduce isolation.

Additionally, parents' and instructors' experiences in the present study bring into question whether relationships between parents and their classmates and instructors play a role in the development of parental sensitivity and self-efficacy. This finding is supported by Bandura's (1982) theory that self-efficacy is affected by factors related to social support, such as believable information supplied by a trusted support and vicarious experience. Future researchers could address the relationship between social support and other treatment outcomes more directly, and

develop intervention models and practice guidelines that specifically target parental-self-efficacy (Coleman & Karraker, 1997; Jones & Prinz, 2005; Raj & Salagame, 2010).

In past studies, researchers have investigated parent-infant music programs with specific at-risk parent groups, such as young parents, parents of a child with a disability, mothers with postpartum depression, parents of a premature infant, and parents with socioeconomic disadvantage. Conversely, the present study focused primarily on well parents, or participants who were not targeted for their *at-risk* status. Parents in the present study were middle-to-high class, university-educated parents, who were able to pay for music classes. Similarly, the *Music Together* program was developed to reduce the impact of stress, increase family resilience, strengthen parent-child attachment, and build social support for well families (Mackenzie & Hamlett, 2005). This program is offered to all families in the community, instead of primarily targeting parents and/or children with diagnoses, disability, or otherwise at-risk status.

These well parents' experiences in the parent-infant music classes could be different from those of more at-risk parents. Parents' and instructors' experiences in the present study bring into question whether parents' improvements in parental sensitivity and self-efficacy may be mediated by their experience of social support within the music class. This experience could be similar, or even more important for at-risk parents. Since social support is a predictor of postpartum depression (Beck, 2001; Coyne, Thompson, & Palmer, 2002; Logsdon & Usui, 2001), increasing social support may be a more important outcome of music class participation to mothers with post-partum depression than well mothers. Therefore, more research is needed to compare and contrast the experiences, needs, and benefits of "well" and at-risk parents.

The present study focused on mothers' experiences in parent-infant music classes. Few researchers have focused on fathers' experiences in similar music classes. In a study of parental use of music with infants at home, Trehub et al. (1997) asked both mothers and fathers to document their singing experiences with their infants. Mothers reported a higher frequency of singing to their infants, than did fathers. A similar finding was reported by 2017 American mothers and fathers who were surveyed by telephone in a study of parents' musical behaviours (Custodero et al., 2003). Additionally, Trehub et al. (1997) found that mothers sang more simple, stereotyped, and child-oriented songs than fathers, while both mothers and fathers sang with similar expressiveness to their infants. More research is needed to compare and contrast the

motivations, needs, and experiences of mothers and fathers enrolled in parent-infant music classes.

5.7 Implications for Practice

More research is needed to explore parents' understandings of benefits experienced through, and motivations for joining, parent-infant music classes. Furthermore, researchers must use quantitative analyses to investigate the generalizability of these experiences, before developing generalized implications for practice. However, the study provides preliminary questions about whether focus on music instruction and method is actually very important, even for music classes whose purpose is to focus on improving the parent-child relationship and parental self-efficacy. This preliminary data asks whether long-term participation in music classes may lead to a higher comfort level with the music and with singing in front of others. By developing the musical skills and comfort level, parents may be more able to turn their attention to their relationship with their child, parenting, and instructor-provided themes. In this way, instructors may have more influence in encouraging parents to try different parenting strategies and to develop a culture of noticing small growth. Additionally, these findings suggest that social support may be a very important ingredient in any parent-infant music class because parents' comfort level in singing and with each other may affect their focus. By increasing comfort and inter-class relationships, parents may be more able to focus on staying in the moment, engaging with their child, and improving self-efficacy through modeling, coaching, and vicarious experience. However, more research is needed to explore these possibilities.

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Appendix A – Parent Recruitment Poster

You are invited to participate in a research study called

Are All Parent-Infant Music Programs Created Equal?

A Study Of
Parenting &
Self-Efficacy



Participation involves 3 meetings that take 30-60 minutes each and involve filling out a short questionnaire, playing with your infant, & sharing your experiences in the SSEP music class.

We know!! Parents have no time!
So you will receive a gift certificate for \$20 from BabiesRUs,
as thanks for your help! (For more info, flip this page over.)

Dear Parent,

You are invited to participate in a study entitled Are All Parent-Infant Music Programs Created Equal? A Study of Parenting and Self-Efficacy. Please read the following letter carefully and feel free to contact me at marieke.blom@usask.ca.

Purpose and Procedure: We want to gather information about what parents gain from participating in different kinds of parent-infant music class. Also, we want to know more about how the classes affect how well parents feel that they can parent their infants. Participation in this study involves meeting 3 times with the student researcher in your home, for 30 – 60 min:

Meeting #1: 5 weeks after class starts **Meeting #2:** right after class ends **Meeting #3:** 1 month after class ends

If you choose to participate, you will be asked to fill out a short questionnaire, be videotaped while playing with your infant, and be asked to talk about your experiences in the class. You will have the chance to go over the data collected, tell us what you think, and ask us to add, change, and/or erase parts.

Potential Risks: There will not be any direct risks involved.

Potential Benefits: As thank for your help, you will receive a \$20 gift certificate to BabiesRUs. Although we can't guarantee it, we hope that this study will help us learn more about how different types of music classes benefit parents. Also, this information could lead to improved music programs that better meet your needs, as parents.

Storage of Data: Consent forms will be stored separately from data collected to avoid association of names to any given set of responses. All data containing identifying information, including videotapes, will be securely stored and retained for five years at the University of Saskatchewan, in accordance with University of Saskatchewan guidelines. After five years, data will be destroyed.

Confidentiality: All information will be kept confidential. Names of participants and their children will NOT be revealed. Confidentiality and anonymity will be ensured, as far as possible, through the use of pseudonyms.

Right to Withdraw: You are free to withdraw for any reason, at any time, without penalty. If you withdraw, the data collected from you will be destroyed.

Questions: If you have any questions concerning the study, please feel free to call me or my research supervisor, Dr. Jennifer Nicol, at 966-5261. This study has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on July 10, 2012. Any questions regarding your rights as a participant may be addressed through the Ethics Office (966-2084). Out of town participants may call collect. I will email you the results of the interview if requested.

Sincerely,

Marieke Blom, M.Ed. Candidate
Department of Educational Psychology & Special Education,
University of Saskatchewan.

Appendix B – Instructor Recruitment Poster

You are invited to participate in a research study called

Are All Parent-Infant *Music Programs* Created Equal?

A Study Of
Parenting &
Self-Efficacy



Participation takes a total of 40 minutes and involves:
talking about your training, teaching philosophy, and observations regarding parents'
behaviours in class.

We know!! Teachers have no time!
So you will receive a gift certificate for \$20 from Galaxy Cinemas,
as thanks for your help! (For more info, flip this page over.)

Dear Instructor,

You are invited to participate in a study named *Are All Parent-Infant Music Programs Created Equal? A Study of Parenting and Self-Efficacy*. Please read the following letter carefully and feel free to contact me at marieke.blom@usask.ca.

Purpose and Procedure: We want to gather information about what parents gain from participating in different kinds of parent-infant music classes. If you choose to participate in an interview, you will be asked about your training, teaching philosophy and style, and observed benefits to the parents in your class(es). You will have the chance to go over the data collected, tell us what you think, and ask us to add, change, and/or erase parts.

Potential Risks: There will not be any direct risks involved.

Potential Benefits: As thanks for your help, you would receive a \$20 gift certificate to Galaxy Cinemas. Although we can't guarantee it, we hope that this study will help us learn about how different types of music classes benefit parents. Also, this information may help music instructors and program managers to design and implement more helpful music programs

Storage of Data: Consent forms will be stored separately from data collected to avoid association of names to any given set of responses. All data containing identifying information, including videotapes, will be securely stored and retained at the University of Saskatchewan for five years, in accordance with the University of Saskatchewan guidelines. After five years, this data will be destroyed.

Confidentiality: All information will be kept confidential. Names of participants will not be revealed. Confidentiality and anonymity will be ensured, as far as possible, through the use of pseudonyms in reference to the participants involved in this study.

Right to Withdraw: You are free to withdraw for any reason at any time without penalty. If you withdraw, the data collected from you will be destroyed.

Questions: If you have any questions concerning the study, please feel free to call me or my research supervisor, Dr. Jennifer Nicol, at 966-5261. This study has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on July 10, 2012. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084). Out of town participants may call collect. I will email you the results of the interview if requested.

Sincerely,

Marieke Blom, M. Ed. Candidate
Department of Educational Psychology & Special Education,
University of Saskatchewan.

Appendix C: Parent Invitation Script

“Hi, my name is Marieke Blom and I’m a Master’s student in the School and Counselling Psychology Program at the University of Saskatchewan. I’m doing a study about what parents gain from participating in different kinds of parent-infant music classes. Also, I want to know more about how the classes affect how well parents feel that they can parent their infants.

Participation in this study involves meeting 3 times for 30 – 45 minutes. I’m open to coming to your home to meet, if that’s easier for you. Or, if you feel more comfortable, we can meet in the lounge in his building. It’s up to you. The first two times we would meet, I would ask you to fill out a short questionnaire and be videotaped while playing with your infant. The third time we would meet, I would ask you to tell me about your experiences in the class. And you’d have the chance to go over the information recorded from the interview and to add, change, and/or delete any parts of it. Whatever information you gave me would be strictly confidential and I would use a pseudonym when writing about you in my thesis. Participating in the study is completely voluntary and you can withdraw at any time. If you do decide to participate, you’ll get a gift certificate for \$20 to BabiesRUs as thanks for your time and effort.

I have recruitment posters if you would like more information. Or, if you have any questions, want to know more about the study, or want to sign up, come see me after class.”

Appendix D: Instructor Invitation Script

“Hi, my name is Marieke Blom and I’m a Master’s student in the School and Counselling Psychology Program at the University of Saskatchewan. I’m doing a study about what parents gain from participating in different kinds of parent-infant music classes. Also, I want to know more about how the classes affect how well parents feel that they can parent their infants.

If you choose to participate in an interview, I would ask about your training, teaching philosophy and style, and observed benefits to the parents in your class(es). You would have the chance to go over the information recorded from the interview and to add, change, and/or delete any parts of it. Whatever information you gave me would be strictly confidential and I would use a pseudonym when writing about you in my thesis. Participating in the study is completely voluntary and you can withdraw at any time. If you do decide to participate, you’ll get a gift certificate for \$20 to Galaxy Cinemas as thanks for your time and effort.

I have recruitment posters if you would like more information. Do you have any questions?”

Appendix E – Waitlist Recruitment Poster

Are you waiting to take a music class offered next term through the Community Music Education Program? If so, you are invited to participate in a research study called

Are All Parent-Infant Music Programs Created Equal?

A Study Of
Parenting &
Self-Efficacy



Participation involves 2 meetings that take 30-60 minutes each and involve filling out a short questionnaire and playing with your infant

We know!! Parents have no time!
So you will receive a gift certificate for \$20 from BabiesRUs,
as thanks for your help! (For more info, flip this page over.)

Dear Parent,

You are invited to participate in a study entitled *Are All Parent-Infant Music Programs Created Equal? A Study of Parenting and Self-Efficacy*. Please read the following letter carefully and feel free to contact me at marieke.blom@usask.ca.

Purpose and Procedure: We want to gather information about what parents gain from participating in different kinds of parent-infant music class. Also, we want to know more about how the classes affect parents' self-efficacy, or how well parents feel that they can parent their infants. Participation in this study involves meeting 3 times with the student researcher in your home, for 30 – 60 minutes:

Meeting #1: in mid October **Meeting #2:** in early December

If you choose to participate, you will be asked to fill out a short questionnaire and be videotaped while playing with your infant.

Potential Risks: There will not be any direct risks involved.

Potential Benefits: As thank for your help, you will receive a \$20 gift certificate to BabiesRUs. Although we can't guarantee it, we hope that this study will help us learn more about how different types of music classes benefit parents. Also, this information could lead to improved music programs that better meet your needs, as parents.

Storage of Data: Consent forms will be stored separately from data collected to avoid association of names to any given set of responses. All data containing identifying information, including videotapes, will be securely stored and retained for five years at the University of Saskatchewan, in accordance with University of Saskatchewan guidelines. After five years, data will be destroyed.

Confidentiality: All information will be kept confidential. Names of participants and their children will NOT be revealed. Confidentiality and anonymity will be ensured, as far as possible, through the use of pseudonyms.

Right to Withdraw: You are free to withdraw for any reason, at any time, without penalty. If you withdraw, the data collected from you will be destroyed.

Questions: If you have any questions concerning the study, please feel free to call me or my research supervisor, Dr. Jennifer Nicol, at 966-5261. This study has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on July 10, 2012. Any questions regarding your rights as a participant may be addressed through the Ethics Office (966-2084). Out of town participants may call collect. I will email you the results of the interview if requested.

Sincerely,

**Marieke Blom, M.Ed. Candidate,
Department of Educational Psychology & Special Education,
University of Saskatchewan.**

Appendix F – Parent Consent Form

Dear Parent,

You are invited to participate in a study entitled *Are All Parent-Infant Music Programs Created Equal? A Study of Parenting and Self-Efficacy*. Please read the following letter carefully and feel free to ask any questions.

Purpose and Procedure: We want to gather information about what parents gain from participating in different kinds of parent-infant music class. Also, we want to know more about how the classes affect parents' self-efficacy, or how well parents feel that they can parent their infants. Participation in this study involves meeting 3 times with the student researcher in your home, for 30 – 60 minutes:

Meeting #1: 5 weeks after class starts **Meeting #2:** right after class ends **Meeting #3:** 1 month after class ends

If you choose to participate, you will be asked to fill out a short questionnaire, be videotaped while playing with your infant, and be asked to talk about your experiences in the class. You will have the chance to go over the data collected, tell us what you think, and ask us to add, change, and/or erase parts.

Potential Risks: There will not be any direct risks involved.

Potential Benefits: As thank for your help, you will receive a \$20 gift certificate to BabiesRUs. Although we can't guarantee it, we hope that this study will help us learn more about how different types of music classes benefit parents. Also, this information could lead to improved music programs that better meet your needs, as parents.

Demographic Information: You will be asked to provide some demographic information about yourself, such as marital status, income, race, and musical background. We are asking for this information, because these variables can effect how parents parent and/or how they feel about their parenting. This information will be collected confidentially and you have the right to leave incomplete any questions you do not wish to answer. This consent form and any demographic information you provide will be kept separately from the materials used in any experiment you choose to participate in. Only faculty and research assistants conducting research will have access to this information

Storage of Data: Consent forms will be stored separately from data collected to avoid association of names to any given set of responses. All data containing identifying information, including videotapes, will be securely stored and retained at the University of Saskatchewan for five years, in accordance with the University of Saskatchewan guidelines. After five years, this data will be destroyed.

Confidentiality: All information will be kept confidential. Names of participants and their children will NOT be revealed. Confidentiality and anonymity will be ensured, as far as possible, through the use of pseudonyms in reference to the participants and children involved in this study.

Right to Withdraw: You are free to withdraw for any reason, at any time, without penalty. If you withdraw, the data collected from you and tape recordings will be destroyed.

Questions: If you have any questions concerning the study, please feel free to call Dr. Jennifer Nicol or Marieke Blom at 966-5261. This study has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on July 10, 2012. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084). Out of town participants may call collect. The researcher will email you the results of the interview if requested.

Researchers: Dr. Jennifer Nicol and Marieke Blom, Department of Educational Psychology & Special Education, University of Saskatchewan.

Consent to Participate: I have read and understood the information provided above. I have been given an opportunity to ask questions and my questions have been answered satisfactorily. I consent to participate in the study described above, understanding that I may withdraw this consent at any time. A copy of this consent form has been given to me for my records.

Researchers: Dr. Jennifer Nicol and Marieke Blom, Department of Educational Psychology & Special Education, University of Saskatchewan. Contact number 966-5261.

Name of Participant _____

Signature of Participant _____

Signature of Researcher _____

Date _____

Appendix G – Instructor Consent Form

Dear Instructor,

You are invited to participate in a study entitled *Are All Parent-Infant Music Programs Created Equal? A Study of Parenting and Self-Efficacy*. Please read the following letter carefully and feel free to ask any questions.

Purpose and Procedure: We want to gather information about what parents gain from participating in different kinds of parent-infant music classes. If you choose to participate in an interview, you will be asked about your training, teaching philosophy and style, and observed benefits to the parents in your class(es). You will have the chance to go over the data collected, tell us what you think, and ask us to add, change, and/or erase parts.

Potential Risks: There will not be any direct risks involved.

Potential Benefits: As thanks for your help, you would receive a \$20 gift certificate to Galaxy Cinemas. Although we can't guarantee it, we hope that this study will help us learn about how different types of music classes benefit parents. Also, this information may help music instructors and program managers to design and implement more helpful music programs

Storage of Data: Consent forms will be stored separately from data collected to avoid association of names to any given set of responses. All data containing identifying information, including videotapes, will be securely stored and retained at the University of Saskatchewan for five years, in accordance with the University of Saskatchewan guidelines. After five years, this data will be destroyed.

Confidentiality: All information will be kept confidential. Names of participants and their children will not be revealed. Confidentiality and anonymity will be ensured, as far as possible, through the use of pseudonyms in reference to the participants and children involved in this study.

Right to Withdraw: You are free to withdraw for any reason, at any time, without penalty. If you withdraw, the data collected from you and tape recordings will be destroyed.

Questions: If you have any questions concerning the study, please feel free to call Marieke Blom or her supervisor, Dr. Jennifer Nicol at 966-5261. This study has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on July 10, 2012. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084). Out of town participants may call collect. The researcher will email you the results of the interview if requested.

Consent to Participate: I have read and understood the information provided above. I have been given the chance to ask questions and my questions have been answered satisfactorily. I consent to participate in the study described above, understanding that I may withdraw this consent at any time. A copy of this consent form has been given to me for my records.

Researchers: Dr. Jennifer Nicol and Marieke Blom, Department of Educational Psychology & Special Education, University of Saskatchewan. Contact number 966-5261.

Name of Participant _____

Signature of Participant _____

Signature of Researcher _____

Date _____

Appendix H – Demographic Questionnaire

What is your sex.....and age?

☐ male ☐ female _____

What is the sex.....and age of the child attending the CMAP music class with you?

☐ male ☐ female _____

What is your marital status?

☐ married ☐ common-law ☐ widowed ☐ divorced
☐ separated ☐ never married

*How old were you when your **first** child was born?.....*

What is your music background?

☐ none ☐ formal music lessons
☐ music classes at school ☐ choir member
☐ self-taught on an instrument ☐ band member
☐ other _____

What is the highest degree or level of school you have completed?

(If currently enrolled, mark previous grade or highest degree received.)

☐ no schooling completed ☐ some post-secondary credit, no degree
☐ Kindergarten to 8th grade ☐ post-secondary degree/diploma
☐ 9th, 10th or 11th grade ☐ Master's degree (ie: MA, MS, MEd, MBA)
☐ high school diploma or equivalent (ie: GED) ☐ Doctorate degree (ie: PhD, EdD)

Are you currently....

☐ employed for wages? ☐ self-employed?
☐ out of work and looking for work? ☐ out of work but not looking for work?
☐ a homemaker? ☐ a student?
☐ retired? ☐ receiving disability benefits?

What is your total household income?

☐ Less than \$19,999 ☐ \$20,000 to \$39,999 ☐ \$40,000 to \$59,999
☐ \$60,000 to \$79,999 ☐ \$80,000 to \$99,999 ☐ \$100,000 to \$149,999
☐ \$150,000 or more

What is your race?

☐ Aboriginal (Inuit Metis North American Indian)
☐ Arab/West Asian (e.g. Armenian Egyptian Iranian Lebanese Moroccan)
☐ Black (e.g. African Haitian Jamaican Somali)
☐ Chinese ☐ Filipino ☐ Japanese
☐ Korean ☐ Latin American ☐ South Asian
☐ Southeast Asian ☐ White (Caucasian) ☐ Other _____

Appendix I - Parenting Sense of Competence Scale (PSOCS)

Please rate the extent to which you agree or disagree with each of the following statements.

Strongly Disagree	Somewhat Disagree	Disagree	Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6
1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.	1	2	3	4	5 6
2. Even though being a parent could be rewarding, I am frustrated now while my child is at his / her present age.	1	2	3	4	5 6
3. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.	1	2	3	4	5 6
4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	1	2	3	4	5 6
5. My mother was better prepared to be a good mother than I am.	1	2	3	4	5 6
6. I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent.	1	2	3	4	5 6
7. Being a parent is manageable, and any problems are easily solved.	1	2	3	4	5 6
8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.	1	2	3	4	5 6
9. Sometimes I feel like I'm not getting anything done.	1	2	3	4	5 6
10. I meet by own personal expectations for expertise in caring for my child.	1	2	3	4	5 6
11. If anyone can find the answer to what is troubling my child, I am the one.	1	2	3	4	5 6
12. My talents and interests are in other areas, not being a parent.	1	2	3	4	5 6
13. Considering how long I've been a mother, I feel thoroughly familiar with this role.	1	2	3	4	5 6
14. If being a mother of a child were only more interesting, I would be motivated to do a better job as a parent.	1	2	3	4	5 6
15. I honestly believe I have all the skills necessary to be a good mother to my child.	1	2	3	4	5 6
16. Being a parent makes me tense and anxious.	1	2	3	4	5 6
17. Being a good mother is a reward in itself.	1	2	3	4	5 6

Appendix J – Parent Interview Questions

1. How did you hear about the music classes?
2. What made you decide to enroll in the music class?
3. What did you expect to gain from this class?
4. How did you decide between the Musical Parenting class and the Suzuki Early Childhood Music Class?
5. Was any information, skill instruction, or experience delivered in class helpful to you? If so, how? Was the way the information/instruction/experience delivered helpful to you?
6. In what ways has the music class provided support to you and/or your infant?
7. Did the program create any lasting change for you and/or your infant? If so, in what ways?
8. Did you experience any other benefits from attending the class? If so, what? And did these benefits extend to your home environment?
9. What was the number one benefit to you and/or your infant of taking the class?
10. How confident are you that this program has made a difference to you and/or your infant?
11. Questions will be formulated based on phase 1 data analysis regarding: a) whether parents noticed changes in KIPS and PSOCs item scores between data collection points, b) whether parents perceived themselves as making said changes consciously/non-consciously in reaction to class participation and/or information delivered by class instructor(s).
12. Is there anything else you would like to tell me that might be helpful for me to know?

Appendix K – Instructor Interview Questions

1. How long have you been teaching the music program?
2. Tell me about the format of the music class.
3. Before you began teaching the music class, did you teach other parent-infant music classes?
4. Have you had any formal training in singing and/or music instruction?
5. What philosophies guide your teaching?
6. What teaching techniques do you use during classes?
7. In your opinion, have parents learned more from information, skill instruction, or experience during your class?
8. What benefits do you see parents and their infants gain by participating in your class?
9. What benefits have parents reported to gain from participating in your class?
10. In your opinion, what is the number one benefit to parents and/or their infants of taking the class?
11. How confident are you that this program has made a difference to parents and/or their infants?
12. Questions will be formulated based on phase 1 data analysis regarding: a) whether instructors noticed changes in KIPS and PSOCS item scores between data collection points and b) whether instructors perceive parents as making said changes consciously/non-consciously in reaction to class participation and/or information delivered by class instructor(s).
13. Is there anything else you would like to tell me that might be helpful for me to know?

Appendix L - Transcript Release Form

I, _____, have reviewed the complete transcript of my personal interview in this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate. I acknowledge that the transcript accurately reflects what I said in my personal interview with [name of the researcher]. I hereby authorize the release of this transcript to [name of the researcher] to be used in the manner described in the Consent Form. I have received a copy of this Data/Transcript Release Form for my own records.

Name of Participant

Date

Signature of Participant

Signature of Researcher